# PEARLS ANALYSIS OF SAVING AND CREDIT COOPERATIVES OF BARDIYA

**(A Comparative Study of Biswashilo, Pragati, Srijana Saving and Credit Cooperatives Ltd.)**

A Thesis

**Submitted by:**

**BISHNU PRASAD UPADHYAY**

**Central Department of Management**

**T.U. Regd. No: 7-2-325-268-2006**

**Campus Roll No: 129/015**

**Exam Roll No: 409/015**

*In partial Fulfillment of the Requirement of Degree of*

**Masters of Business Studies (MBS)**

In the

**Faculty of Management**

**Tribhuvan University**

Kritupur, Kathmandu

August 2018

## CERTIFICATION OF AUTHORSHIP

I certified that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of thesis.

……………………..….

Bishnu Prasad Upadhyay

Date: ………………

# RECOMMENDATION LETTER

It is certified that thesis entitled **PEARLS Analysis of Saving and Credit Cooperative of Bardiya** submitted by **Bishnu Prasad Upadhyay** is an original price of research work carried out by the candidate under my supervision. Literacy presentation is satisfactory and the thesis is a form suitable for publication. Work evinces the capacity of the candidate for critical examination and independent judgment. Candidate has put in at least 60 days after registering the proposal. The thesis is forwarded for examination.

______________________

Lecturer Santosh Kumar Ghimire

Thesis Supervisor

Central Department of Management

Kirtipur, Kathmandu, Nepal

# APPROVAL SHEET

We, the undersigned, gave examined the thesis entitled **PEARLS Analysis of Saving and Credit Cooperative of Bardiya** resented by **Bishnu Prasad Upadhyay** a candidate for the degree of **Master of Business Studies (MBS)** and conducted the viva voice examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

____________________

Lecturer Santosh Kumar Ghimire

Thesis Supervisor

____________________

Internal Examiner

____________________

External Examiner

____________________

Prof. Bhawani Shanker Acharya

Chairperson, Research Committee

____________________

Prof. Dr. Bhoj Raj Aryal

Head, Central Department of Management

Date: ..............................

# ACKNOWLEDGMENT

This thesis has been prepared for the partial fulfillment of requirement of the degree of Master of Business Studies (M.B.S.). This study risk management of cooperatives and all provision for reduce risk of cooperatives. All the available data were incorporated at suitable place by using the tables and graphs.

I would like to express my enormous gratitude to my respected **Prof. Dr. Bhoj Raj Aryal,** Head of the Management Department, **Prof. Bhawani Shanker Acharaya,** Chairperson of Research Committee and supervisor **lecture Santosh Kumar Ghimire** of Central Department of Management, Faculty of Management, T.U. for his constructive guidance and valuable suggestions without which this work would not have been completed. His guidance and help has been a great source of encouragement and inspiration to me.

I am highly indebted to Krishna Prasad Sharma BISSACOS Senior Executive Officer, Lok Prasad Upadhyay BISACCOS Internal Auditor, Dhan Bahadur Ratgaiya manager of PSACCOS and Harihar Paudyal manager of SSACCOS for providing annual reports and other supporting information and I am also highly indebted to my parents Mr. Navaraj Upadhya and Mrs. Dipa Upadhyay and my spouse Mrs. Lila Upadhyay who sacrificed their time and effort for my higher education and friends Mr. Rakesh Giri for their valuable help and suggestion and continuously supported and encouraged me in course of preparing this thesis.

Date: …………………  Bishnu Prasad Upadhyay

Kritipur, Kathmandu  Roll No. 129/015

# TABLE OF CONTENTS

# LIST OF TABLES

# ABBREVIATIONS

| | |
|---|---|
| ADBN | Agricultural Development Bank of Nepal |
| BISACCOS | Biswashilo Saving and Credit Cooperative Society |
| FI | Financial Institution |
| FIs | Financial Institutions |
| FY | Financial Year |
| ICA | International Co-operative Alliance |
| MBS | Master in Business Studies |
| MCRIL | Micro-Credit Ratings International Limited |
| MOCPA | Ministry of Cooperative and Poverty Alleviation |
| NEFSCUN | Nepal Federation of Savings and Credit Cooperative Unions Ltd |
| NRB | Nepal Rastra Bank |
| PEAF | Property and Evidence Association of Florida |
| PSACCOS | Pragati Saving and Credit Cooperative Society |
| SACCOS | Saving and Credit Cooperative Society |
| SSACCOS | Shrijana Saving and Credit Cooperative Society |
| TU | Tribhuvan University |
| WOCCU | World Council of Credit Unions, Inc. |

# CHAPTER 1

# INTRODUCTION

## 1.1 Background of the Study

Cooperative world was founded from Latin word "co-operari" where 'co' means together and 'operari' means working together. Working together for member is the initial concept of cooperatives.

The Cooperative is a member centered business. In 1995, the International Co-operative Alliance (ICA), the apex organization that represents cooperatives worldwide, defined cooperative as: "An autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. Cooperatives are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. In the tradition of their founders, cooperative members believe in the ethical values of honesty, openness, social responsibility, and caring for others."

A cooperative (also known as co-operative, co-op, or coop) is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. Cooperatives may include:

- Non-profit community organizations
- Businesses owned and managed by the people who use their services (a consumer cooperative)
- Organizations managed by the people who work there (worker cooperatives)
- Organizations managed by the people to whom they provide accommodation (housing cooperatives)
- Multi-stakeholder cooperatives such as those that bring together civil society and local actors to deliver community needs
- Hybrids such as worker cooperatives that are also consumer cooperatives or credit unions

- Second- and third-tier cooperatives whose members are other cooperatives (Source: (Wikipedia, n.d.))

Cooperative is inherent in human society. Cooperation is a give and take process to each other and it is an essential ingredient of a cooperative. The motto of cooperative is “each for all and all for each”. The term “cooperative” means the act of working together for a common purpose. Co-operative refers to work together for common benefits.  A co-operative organization is that business organization which is established by economically poor people with a view of working in an organized way for common economic upliftment. Especially co-operative organization can be the most effective device for uplifting the socio-economic conditions of rural masses.

Agriculture sector has remained the key sector for significant contribution to enhance the national economy as it is the main source of national income, employment food, cloth, industrial raw materials, export trade and commerce as well as major investment sector. Keeping this in view, the government has been giving due emphasis in this sector in its five years economic plan and yearly budget. Besides foreign financial and technical assistance it also remained significant. Peoples who based agriculture are from grassroots and they are not too conscious, so they need cooperation and education. Co-operative organization could be the best solution for their support.

In Nepal cooperative have long cultural history of the cooperative in informal group, like as popularly known as dhukuti, and grain savings and labor savings systems known as parma and dharma bhakari. Similarly, Guthi provided a forum to work together for smoothly running different socio cultural practices. Many of these traditional systems of cooperation are still functioning in the rural areas of Nepal. Government also supports to like this informal group like Guthi. (NEFSCUN, 2017)

First cooperative established in 1956 in Chitawan district to support to inundation victim of name of cooperative Bakhan credit cooperative with other 13 cooperative. (Timalsena, 2073), The first Co-operative Act was enacted by the government in 1960, which was followed by the Agricultural Co-operative Act (Sajha Sahakari). In 1963, the capital of savings and credit cooperative societies was converted into a Cooperative Bank in 1963, and in 1968 it was also converted into the Agricultural Development Bank of Nepal (ADBN). After 5 years the ADBN returned management back to the government and in 1975 the Cooperative Act was amended again. Beginning in the 1980s a new generation of community based savings and credit groups began to emerge in Nepal. The Cooperative Act was amended for the third time to give the Government more control. By this time the Savings and Credit movement had spread throughout the country and the need for an apex coordinating body was evident. (NEFSCUN, 2017)

In Nepal, 34,512 cooperative actively in overall Nepal at the end of June 2017, here 274,154,363 (Thousand) amount transaction are made which is 21% contribute to economic support. Where credit given to member is 273,710,439 thousand and deposit are collect to member 302,164,513 thousand and share capital use of cooperative are 73,178,715 thousand. (MOCPA, Statistics of Cooperative, 2017)

In conclusion Nepal is rural, landlocked country so here more problem in development of country so here is problem to such as finance area is also difficulty to establish in rural and also in hills place. All people are not engage in finance sector but cooperative helps to involved in rural place. Credit management is the process of controlling and collecting payments from customers. A good credit management system will help an entity reduce the amount of capital tied up with debtors and minimize an entity's exposure to bad debts. Credit management therefore refers to all activities that an organization is engaged in when dealing with issuance of service, recording of the transaction, analyzing and collecting payments for services rendered to debtors or customers. (Mukherjee, 2014) Organization cannot arbitrarily leave the above functions without any controlling policy. Extending services to customers for payment to be received in future leads to the recognition of such owing as debtors or accounts receivables in the organization. Managing accounts receivables is important for any firm because it is directly linked to the sales. (Fujo & Ali, 2016)

**Information of cooperative**

- Bishwashilo Saving and Credit Cooperative Society (BISACCOS) Limited were established in Thakaurbaba -8 Bardia. Bishwashilo Saving and Credit Cooperative formally registered in Bardiya district under Division Cooperative office Gulariya Bardia in 2052. In this organization total member are 8,256 which is included 6,522 female and 1,632 are male and also 102 groups. An organization share capital structure is 2,17,04,200.00

- Pragati Saving and Credit Cooperative Society Limited (PSACCOS) were established in Thakaurbaba -3 Bardia. Pragati Saving and Credit Cooperative formally registered in Bardiya district under Division Cooperative office Gulariya Bardia in 2052. In this organization total member are 4739 which is included 1850 female and 1970 are male and also 919 Minor. An organization share capital structure is 1,47,13,600.00
- Shrijana Saving and Credit Cooperative Society Limited (SSACCOS) were established in Thakaurbaba -4 Bardia. Shrijana Saving and Credit Cooperative formally registered in Bardiya district under Division Cooperative office Gulariya Bardia in 2050. In this organization total member are 2180 and share capital structure is 72,82,300.00

## 1.2 Statement of the problem

Cooperative has facing several problem and challenge which is arising due to internal as well as external environment factor. Such as, economic environment, socio-cultural environment, political environment, legal and government environment, technological environment. However financial institution are increasing rapidly, they are collect deposit for lending the deposit to customer. Lack of proper knowledge and small monetary fund cooperative has facing credit risk in Nepal. Cooperative member have not appropriate knowledge about the cooperative education, borrowing repayment so they can’t pay of interest and principle amount of borrowing.

Due to poor credit administration, the ineffective and nonperforming credit increasing highly. Thus the research proposed it would be study following research questions examined.

1. What is the protection of money policy in Nepalese cooperative?
2. What is the effective financial structure follow by Nepalese cooperatives?
3. What is the minimum required of quality of assets?
4. What are the relationship between the deposit, loan, investment, expenses and profitability?
5. What is the liquidity position of cooperatives?
6. What is the growth rate of cooperatives?

## 1.3 Propose of the Study

The main objective of the study is examining the credit risk management of selected cooperatives. The specific objectives are as follows;

1. To study of protection of money policy follow by Nepalese cooperatives.
2. To study of financial structure of Nepalese Cooperative.
3. To study of minimum quality of assets.
4. To examine relationship of deposit, lending, borrowing, other cost and its impact in profit.
5. To examine of liquidity position of cooperatives.
6. To study of entire growth rate of cooperatives.

## 1.4 Signification of the Study

Cooperatives scan play meaningful role in resource mobilization and socioeconomic development of poor and underprivileged people. Up to June 2017, there are altogether 34,512 cooperative societies in the country. Out of them 13,578 are saving and credit, 4,371 are multipurpose, and others are different subject wise cooperatives. Most of the multipurpose cooperative are also involved in saving and credit activities along with their members. Hence out of total cooperative societies around 54 % cooperative (including multipurpose cooperative societies) are involved in saving and credit business with their members.

According to the department of cooperatives, up to mid July 2017, cooperative sector collect the deposit from its members 302,164,513 thousand rupees and provide loan to the member 273,710,439 thousand rupees. The cooperative sector is providing more than 21 % of total banking services. Since mushrooming growth of cooperatives number and the volume of transactions are increasing than its risk factors also increasing.

There are so many research works on cooperative sector. But a comprehensive research on credit risk management practices in cooperatives from both quantitative and qualitative aspects have not enough and some studies are small scale studies. This study aims to analyze the overall credit risk scenario and credit risk management practice in Nepalese cooperative. Cooperatives are mainly related to financial activities. Risk is inherent in financial sectors. Therefore saving and credit cooperatives cannot afford to be risk avoiders. The risk return relationship has to be optimally balanced for welfare enhancing outcomes. Saving and credit cooperatives are aggressively extend to their business in different fields including real estate, trading, agriculture etc. Due to the downward business of real estate sector, its investment seems to be on high risk and should diversifying their investment and operations. (Paudel, 2012)

Effective risk management is the hallmark of successful cooperatives. In this proposed study I would attempt to examine and explore the various credit risk factors as well as current credit risk management practices and determine the suitable model for credit risk management in cooperatives in Nepal. Hence this study has the great significance in the present context.

## 1.5 Limitations of the Study

Every study has on its own limitations so it is also not independence on the study. This study only for the partial fulfillment of Master Degree in Business Studies (MBS), and it has limitation of some area such as a limitation of time, only taken to sample cooperatives only.

The proposed study has the following delimitation.

1. The cooperative should be established before five years ago and they lie within Bardiya district.
2. This study based on secondary data so it is reliability of the study depends on Provide data of cooperatives
3. This study only studies of 5 years data of cooperatives.

## 1.6 Organization of Study

The present study is organized in such way that the stated objectives can easily be fulfilled. The study report has presented the systematic presentation and finding of the study. The study report is designed in five chapters which are as follows:

**Chapter 1 Introduction**

This chapter describes the basic concept and background of the study. It has served orientation for readers to know about the basic information of the research area, various problems of the study, objectives of the study and limitation and research gap of study.

**Chapter 2 Literature Review**

This chapter study about the research related literature and readers that they are familiar with important research that has been carried out in similar areas. It also establishes the study of link in a chain of research that is developing and emerging knowledge about concerned field.

**Chapter 3 Research Methodology**

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with objective in view. It describes about various data related study, various tools and techniques employed for presentation the data.

**Chapter 4 Results**

This chapter analysis of the data and results interpret. This chapter shows the result of the study and also finds out of new thing.

**Chapter 5 Conclusion**

On the basis of results this chapter helps to elaborate of the summary of the study, conclusion of the study and also researcher concluded about the performance of the concerned organization for better improvement.

# CHAPTER 2

# LITERATURE REVIEW

## 2.1 Conceptual Review

In term of a literature review, "The literature" means the works you consulted in order to understand and investigate your research problem. Re-view (or look again) is a process of systematic, meticulous, and critical summary of the published literature in your field of research. How others have dealt with topic in your research subject and of what knowledge they have acquired? Literature review also indicate clearly and linkages with other studies in the field. A critical review of the literature helps you to develop a thorough understanding and insight into previous research works that related to your study. (Pant, 2012)

The review of literature is an essential part of all studies. It is way to discover what other researcher did in the area of credit management. A literature review is the process of locating, obtaining, reading and evaluating the research literature in the area of credit management of any bank, banking institution and also cooperative. It can help to develop some experience in this area. To see what new contribution can be made and to receive some idea for developing research design. (Sunar, 2015)

Co-operative is a form of business enterprises, or community organization, incorporated in service to its members and users, in order to meet their common economic, social and cultural needs and aspirations. Co-operative is jointly owned and democratically controlled by its members and users on the basis of one member, one vote. Co-operatives follow democratic, participatory and transparent decision-making processes and organizational structures so that their members and users (i.e. owners, workers and consumers) may be directly responsible for benefiting themselves and the society in general. Co-operatives are based on the value of self-help, mutual help, self-responsibility, democracy, equality, equity and solidarity. Co-operative members believe in the ethical values of honesty, owners, social responsibility and caring for others. Cooperative principles by which co-operatives put their values into practice are:

(The National Cooperative Federation of Nepal (NCF/N), 2008)

- Voluntary and Open Membership
- Democratic Member Control
- Member Economic Participation
- Autonomy and independence
- Education, Training and Information
- Co-operation among Co-operatives
- Concern for Community

Many different financial ratios and “rules of thumb” have been promoted for financial institutions worldwide, but few have been consolidated into an evaluation program that is capable of measuring both the individual components and the system as a whole. Since 1990, the World Council of Credit Unions, Inc. has been using a set of financial ratios known as “PEARLS.”

PEARLS is a financial performance monitoring system designed to offer management guidance for credit unions and other savings institutions. PEARLS is also a supervisory tool for regulators. PEARLS can be used to compare and rank institutions; it can provide comparisons among peer institutions in one country or across countries. PEARLS is a set of financial ratios or indicators that help to standardize terminology between institutions. In total, there are 44 quantitative financial indicators that facilitate an integral analysis of the financial condition of any financial institution.

The PEARLS system has become an efficient and effective tool for monitoring the progress of saving and credit cooperatives and operates by using standardized financial ratios and formulas. Financial performance analysis indicated in this section was on the basis of financial statements.

### 2.1.1 Concept of Credit

Credit is regarded as the most income generating assets in cooperative. Credit is regarded as the heart of cooperative bank in the sense that; it occupies large volume of transaction; it covers main part of the investment, the most of investment activities based on credit; it is the mail factor for creating profitability; it is main sources of creating profitability; it determined the profitability. In today's context, it also effects on national economy status. Similarly, it provide to trade and industry, the government will get tax from them and help to increase national economy.

Credit and advance is an important item on the asset side of the balance sheet of a commercial bank. Bank earns interest on credits and advances, which is one of the major source of income for banks. Bank prepares credit portfolio, otherwise it will not only add bad debts but also affect profitability adversely. "Credit is financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return for an obligation of repay on specified date on demand. Banks generally grants credit on four ways they are overdraft, cash credit, direct credit and discounting of bills" (Chhabra & Taneja, 1991)

### 2.1.2 Types of credit

There are different type of credit which are provide by cooperative

- Agriculture and livestock

  The loan for the unite agriculture like hen farming, pig farming, bee farming, fish farming, duck farming, fruit farming, vegetable cultivation, machine and equipment's for agriculture, cash crops, food crops, nursery, coffee farming, tea farming, flower cultivation, mushroom cultivation and animal raring are called agriculture and livestock loan

- Cottage and Small industry Credit
  In this kind of loan provide on to member as a small industry like small hotel, rice mill, handicraft items produce, candle, tailoring, small business etc.
- Educational credit
  This kind of loan is given for national and international education.
- Housing credit
  This kind of loan is given for the members of SACCOS for buying land and house, to build new house and to add fixed asset.
- Foreign Employment Credit

The loan which is given for the members of this company, their family members and their relatives who are going for foreign employment (after coming letter and visa) is called Baidisik rojgar loan. This kind of loan is given after study of expenses to go to foreign country

- Hire and purchase Credit

  Hire and purchase credit provide to member on purchase of vehicle for use of private or publicly use.
- Emergency Credit

  This kind of loan is given for emergency like accident, heart attack, delivery, snake biting, firing, cholera and natural disasters.
- Bio Gas Credit

  This credit provide to cooperative member who install to bio gas for the individual use for family.

### 2.1.3 Lending Criteria of Credit

While screening a credit application, cooperatives use the credit 5C analysis. All cooperative use the lending of loan them evaluation of 5C and 5C are as;

1. Capacity

   Capacity describe the ability to pay the loan. It measured by applicants past performance records and followed by physical observation. For this, and interview of applicants will further clarify the situation. The evaluation criteria out of 100 there is 50 is the weight of the capacity and sub criteria are as;
   - Installment amount and type of payment
   - Total loan provide to member
   - Assets amount
   - Member share and saving in SACCOS
   - Regular income and sources
   - Income sources of new business plan
2. Character

   Character is the analysis of the applicant as to his ability to meet the obligations put forth by the lending institution, and 30% weight declaration of out of 100. For this analysis, generally following the criteria:

- Practice for payment the loan in time
- Practice for payment the loan in time other institution
- Transaction with neighbor
- Practice for Saving and other saving accounts
- Social inclusion

3. Collateral

   Collateral is the security proposed by the borrower. Collateral may be of either nature moveable or immovable move able collateral comprises right from stock, inventories to playing vehicle. In case of immovable it may be land with or without building or fixtures, plant machineries attached to it and it is the 10 weigh for the out of 100. Criteria of collateral are:

   - Ownership
   - Certificate
   - Types of prevention
   - Insurance
   - Other necessary document

4. Condition

   When cooperative is satisfied with the character, capacity, capital and collateral then a credit agreement (sanction letter) is issued in favor of the borrower starting condition of the credit to which borrower's acceptance is accepted and it weight is 5 out of 100 and it 2 type of criteria are;

   I. Income Credit
      - Physical infrastructure
      - Knowledge, skill and experience
      - Environmental impact assessment
      - Physical condition
      - Social inclusion

   II. Other Credit
      - Government Job
      - Other Job
      - Foreign income
      - Other income source

5. Capital Structure

   This indicates applicant's capacity to inject his own money. By capacity analysis it can be concluded that whether borrower is trying to playing with lender's money only or is also injecting his own fund to the project. For capital analysis, financial statements, like certified balance sheet, profit and loss account is the only tools and it is 5 weight for the out of 100 and its criteria are;

   - Condition of selling items
   - Debtor net assets
   - Own investment
   - Share and saving in cooperative

In above 5C analysis cooperative only provide the loan with weight 60 out of 100, bellow 60 cooperative doesn't allow the credit.

### 2.1.4 Credit lending process

Cooperative follows several steps to disburse loan to the borrowers. The lending polices might be different from one bank to another. In general, these steps can be pointed out of follows.

- Credit demand form
- Fixed assets pledge and saving pledge
- 5C analysis
- Copy of Citizenship
- Copy of share of cooperative
- Photo
- Minimum 10% of saving amount and saving account
- Fixed assets admire to four point

## 2.2 Credit Risk Management Practices

### Loan Portfolio

Loan Portfolio constitutes loans that have been made or bought and are being held for repayment. Loan portfolios are the major asset of SACCOS, and other lending institutions. The value of a loan portfolio depends not only on the interest rates earned on the loans, hut also on the quality or likelihood that interest and principal will be paid. Effective management of the loan portfolio and the credit function is fundamental to a SACSOS'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. Because review of the LPM process is so important, it is a primary supervisory activity. Assessing LPM involves evaluating the steps the management takes to identify and control risk throughout the credit process (Richardson, 2009).

### Credit Risk Management

When a Sacco grants credit to its customers it incurs the risk of non-payment. Credit management, or more precisely credit risk management, refers to the systems, procedures and controls which a Sacco has in place to ensure the efficient collection of customer payments minimize the risk of non-payment. Credit risk management forms a key part of a company's overall risk management strategy. Weak credit risk management is a primary course of many business failures. Many small businesses, for example, have neither the resources nor the expertise to operate a sound credit management system (Richardson, 2009).

### Risk Identification

Risk identification is a process that reveals and determines the possible organizational risks as well as conditions, arising risks. By risk identification the organization is able to study activities and places where its resources are exposed to risks. Risk identification is the first stage of risk management. It develops the basis for the next steps: analysis and control of risk management. Correct risk identification ensures risk management effectiveness. If risk managers do not succeed in identifying all possible losses or gains that challenge the organization, then these non-identified risks will become non-manageable. Risk identification can be described by the following basic elements: sources of risks; hazard factors; perils and exposures to risk.

**Risk Analysis**

The condition under which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for is termed risk. Risk analysis is the analysis of the anticipated cost that will be incurred if a contingency takes place. This analysis is done before any contingency occurs. There are two elements included within this definition: future uncertainties and impact of outcomes.

An institution should have a policy to develop, review and implement an internal risk rating system where appropriate. Such a system should be able to assign a credit risk rating lo obligors that accurately reflects the obligors' risk profile and likelihood of loss. It should also assign risk ratings in a consistent manner to enable the institution to classify obligors by risk ratings and have a clearer understanding of the overall risk profile of its portfolio.

The institution's credit policy should define the various risk grades of its rating system. It should also set the criteria for assigning risk grades and the circumstances under which deviations from criteria are permitted. The credit policy should also define the roles of different parties involved in the rating process.

**Credit Risk Assessment**

These constitute the process that a financial institution uses to determine the credit worthiness of a borrower. An institution should conduct comprehensive assessments of the creditworthiness of its obligors. These should include, where pertinent, analysis of the obligor's financial position as reflected in various financial and cash. How statements, past repayment record, management quality and integrity, as well as relevant industry and macroeconomic data. For corporate obligors, adequate checks on the shareholders and company directors should be conducted. The institution should group related obligors where appropriate, and conduct credit assessment on a group basis.

**Credit Risk Monitoring**

A Sacco should have in place a system for monitoring the condition of individual credits.

Key indicators of credit condition should be specified and monitored to identity and report potential problem credits. These would include indicators from the following areas: Financial Position and Business Conditions; Conduct of Accounts; Loan Covenants, External Rating and Market Price. In addition to monitoring the above risk indicators, an institution should also monitor the use of funds to determine whether credit facilities are drawn down for their intended purpose.

**Credit Risk Management Procedures**

These are procedures followed by an organization in order to implement its credit policy. An institution should establish appropriate procedures and processes; these should be documented and set out in sufficient detail to provide operational guidance to staff.

Procedures should be established for the implementation of various controls and check within the credit process, such as completion of credit and legal documents, verification of loan disbursement, implementation of facility limits and follow up on credit exceptions. The operational procedures should be periodically reviewed and updated to take into account new activities and products, as well as new lending approaches and changes in systems.

## 2.3 Review of Previous Works

### 2.3.1 Review of Articles in the Journal

In this section, effort has been made to examine and review of some related articles in different economic and financial journal with related to Credit management of cooperative

Baral, (2006) Journal of Financial Health Check-up of Pokhara Royal Co-operative Society Limited in the Framework of PEARLS interpretation to about credit risk to health of an individual financial institution (FI) is a function of multiple factors such as quality of its assets, liquidity position, capital base, management quality, market sensitivity, growth, financial structure and earnings. All these factors affect the different types of risk to an individual FI. Different types of risks: credit, interest rate, liquidity, market, off-balance sheet, foreign exchange, sovereign, technology, operational, insolvency, affect the health of an individual FI adversely if they are not managed in sustainable manner. A number of factors such as quality of assets, financial market condition, foreign exchange market, composition of assets, financial health of its clients, profitability, capital adequacy, affect the degree of these risks. Financial health check-up of an individual institution should be made regularly to detect the adverse effect of these risks on its health. Micro-prudential indicators such as capital adequacy, asset quality, management soundness, earning and profitability, liquidity, sensitivity to market risk, and market based indicators like market price of financial instruments, credit ratings are used as indicators of the sound health of an individual FI. In addition, sound financial structure, and sustainable growth rate also are considered as good indicators of any FIs. Financial health check-up is required, particularly for a saving and credit cooperative to find out the severe financial problems and attract the attention of management to resolve such problems. Ill financial health may threaten the safety and soundness of a cooperative. It may cause the financial loss to the members and adversely affect the member confidence in the saving credit cooperative and system as a whole. Therefore, regular financial health check-up of such a cooperative should be conducted to find out the severe problems and solve them before they threaten its safety and soundness, cause the financial loss to the members, and adversely affect the member confidence in it, and a cooperative system as a whole.

**Findings**

- Pokhara Royal Co-operative Society Limited (PRCSL) has made sufficient loan loss provision for bad debt loan but it has not made adequate provision to cover the possible loan losses from doubtful and sub-standard loan. So it does not have strong first line of defense against non-performing assets.
- PRCSL has invested most of its funds in more productive assets and less in non-earning and less productive assets, and managed the sources of funds effectively from saving deposits. But it has a weak institutional capital base as a second line of defense against non-performing assets
- Percentages of delinquent loan ratio and non-earning assets are greater than the standard set by the WOCCU model. Similarly, percent of net zero cost funds is less than the set benchmark. All these suggest that quality of assets of PRCSL is not up to the standard as set by the WOCCU model.
- The highly fluctuating growth rates in key financial variables imply that PRCSL does not have sound strategy for sustainable growth in its business.

> But the signs of growth of key variables except to institutional capital show that it has achieved desirable growth during the study period. Finally, growth in institutional capital is not enough to build up the second line of defense against non-performing assets.

Credit risk defines as (Lagat, Mugo, & Otuya, 2013) increasing profitability is a priority for all managers in financial institutions. For SACCO's managers, credit risk management is equally very important. On the one hand SACCO's managers need to reduce the risk of loan default because the institutions financial viability is weakened by the loss of principal and interest, yet on the other hand SACCOS's operate under objectives of maximizing benefits to members which include the social role of providing loans to help members achieve their standard of living goals. This social roles conflict with financial viability of SACCOS if managers become less stringent in the lending practices to assess and monitor the credit risk of member borrowers. This calls for the need to conduct more research on credit risk management practices in SACCOS. The study is an attempt to close this gap by providing further insights and information on the effect of credit risk management practices on lending portfolios of SACCOS.

**Findings**

In their risk identification, the SACCOs should ensure that there are clear methods and policies to direct their activities. It is also important that the SACCOs take a critical look at their risk analysis approaches so as to understand how its outcome influences their portfolio. Risk monitoring being a continuous process should be implemented in a progressive manner that allows the SACCOs to understand their potential risk and hence guide in the use of other risk management activities. It is also important for the SACCOs to adopt new approached and tools for carrying out their risk evaluation, reliance on the traditional and historical information and records as key sources for evaluation process may lower the chances of understanding the inherent risks in their portfolio. The inverse effect of risk mitigation measures on the performance of the portfolio should be evaluated critically before they are adopted to ensure only beneficial approaches are adopted. The researcher further recommends that the SACCOs should analyze the contribution of the individual risk management activity with a view of understanding their effect on the performance of their portfolio. In doing so SACCOs will be in a better position to develop risk management models and strategies that are effective. Based on the findings of this study, the researchers recommend a more critical look at the following areas in future

i. A study to critically look at the relationship between the different risk managements factors with the aim of revealing how they influence each other.
ii. The need to isolate a few of the risk management elements that will allow the SACCOs to develop a cost effective model for managing their portfolio without necessarily undertaking all the risk management activities.

The active poor in the world require a full set of microfinance services mainly in the form of saving and credit facilities. These services help the poor start new business or expand existing ones, improve productivity of farmers and micro enterprises, improve human and social capital throughout their life. Moreover these financial services help the poor to deal with vulnerabilities and poverty reduction. Microfinance, as an economic development approach, involves provision of financial and non-financial services to the poor and the selfemployed, who are excluded by formal banking system for many reasons, including the collateral requirements; higher transaction costs to administer smaller amount of loans and credits; and high level of insecurity and risk. Microfinance activities usually involve: small loans, typically for working capital; informal appraisal of borrowers and investments; collateral substitutes, such as group guarantees or compulsory savings; access to repeat and larger loans, cased on repayment performance; streamlined loan disbursement and monitoring; and secured saving products.

Tirfe (2014) in the journal of Financial Performance of Rural Saving and Credit Cooperatives in Tigray, Ethiopia study focus on after the defeat of the Derg regime in 1991, Ethiopia has made considerable efforts to avail loans to the poor, mainly to rural poor, largely in connection with the Country's overall development of Agricultural Development Led Industrialization (ADLI). For example, efforts have been made to develop working arrangements whereby formal banks provide input loans to the farmers. There have also been a number of initiatives in establishing, expanding and strengthening microfinance institutions, as well as cooperative societies in general and saving and credit cooperatives in particular. The government enacted Proclamation No 40/11996 for the institutionalized operation of MFIs and Proclamation No 147/98 for the creation and strengthening of cooperative society's including saving and credit cooperatives. Financial services, such as saving, credit and insurance can be provided by formal and/or informal financial institutions/providers. Informal financial sector refers to economic entities (individuals, associations, non-financial business firms) that are engaged in saving mobilization and provision of credit outside the control of monetary and financial policies, that is, they are neither legally incensed, nor registered in the government agencies. Formal providers are those who are subject to banking laws of the country of operation. These include Central banks, development banks, Microfinance Institutions, Saving and Credit Cooperatives, Insurance Companies etc that are engaged in diversified financial intermediation. In Ethiopia there are six major sources of financial services: commercial banks, informal providers (money lenders, traders, suppliers, friends and family), semi-formal financial institutions such as Rotating Saving and Credit Associations- called Iquub in and Edit Ethiopia, NGOs and Deposit taking microfinance institutions (MFIs)

Kipngetich & Muturi, (2015) Journal of "Effect of Credit Risk Management on Financial Performance of Saving and Credit Co-operative Society in Kenya" define the Credit risk in cooperative defines as the provision of credit facilities is the core function of every savings and credit co-operative society. The credit management function facilitates efficient management and administration of the SACCO loans in order to ensure equitable distribution of funds and to encourage liquidity planning. In order to achieve prudence and accepted best practice, credit management should always be guided by clearly spelt out policies and procedures, strategic plan, by- laws , the co-operative act, the SACCO regulatory act and rules and regulations. Basically Savings and credit co-operative has three operational aspects namely; the savings, the credit and channeling external funds to members.

**Finding**

The results of the study showed that Capital Adequacy in the SACOs as measured by Capital to Assets Ratio significantly determine the Financial Performance of SACCOs. However, the linear relationship between CAR and financial performance was observed to be positive. This implies that an increase in CARs leads to an increase in financial performance of SACCOs. With regard to the importance of management efficiency in predicting financial performance of SACCOs, the study results showed positive insignificant contribution. This implies that management efficiency as measured by Number of active Borrowers per Management Staff was not very important with regards to financial performance of SACCOs. The positive coefficient of ME in the model implies that an increase in ME leads to an increase in financial performance.

Djan, Stephen, Bawuah, Halidu, & Kuuto, (2015) define the Credit Risk in journal of "Credit Risk Management and Its Impact on Financial Performance of Listed Banks in Ghana" financial services are larger in scope and scale than ever before. Along with revenue maximization and operational cost minimization, risk management has moved to center stage in defining superior performance. Differences in risk management philosophy and technique can produce prosperity, mediocrity, or failure. No senior management of today's financial institutions can perform its function without a vastly expanded understanding of the dimensions of risk and the various tools to manage it. Banks are in the business of risk. Many of these risks are of a traditional sort: credit risk, interest rate risk, and liquidity risk. However, numerous risks are more recent, such as regulatory risk, currency risk, and human resources risk. The past couple of decades have seen dramatic losses, in the global as well as local in the banking industry.

**Finding**

Risk management in general plays a key role to bank's performance; banks should put more premiums on risk management. It is recommended that to reduce risk on loans and improve financial performance the banks should make more allocation to default rate management and try to maintain capital adequacy just at optimum level. It is further recommended that since the current study variables are able to account about 30% changes to bank performance, a research to efficiently manage the credit risk will aid in improving bank financial performance. We again suggest a rigor credit risk management process is of paramount significance. Thus, banks policy makers are advised to employ a modern credit risk management technique and diversify the earning activity of their respective banks.

Ndiege, Mataba, Msonganzila, & Nzilano, (2016), journal of "The link between financial performance and loan repayment management in Tanzanian SACCOS" presented as a business entity, financial objective of delivering services in a way that ensures the generation of income. To cover the cost of funds, other operational costs, and surplus for recapitalization purposes. Co-operative, they focus on social objectives, for instance, enable members to save their money and access credit easily and at a lower cost. They have to mobilize savings and to repackage the savings received to issue loans at a favorable price that benefits the members of the institution. Indeed, the second and third objectives are contradicting with the first which is focusing on sound financial stability. The reason is that the second and third objectives are likely to increase the adverse selection and moral hazards problems that, therefore, results in poor credit management.

**Finding**

This paper adds knowledge on credit risk management in SACCOS by analyzing the relationship between financial performance (measured by financial ratios) and loan repayment performance in SACCOS. The findings suggest that despite the available traditional tools used in SACCOS to manage financial risks, there is a higher level of credit risk problem in SACCOS. Also, findings suggest that focusing on sustainability and growth of SACCOS is a valuable tool to fight reduced loan repayments by member-borrowers. However, the results show that focusing on profitability lower loan repayment in SACCOS. The reason is that when SACCOS are focusing on the maximizing profit they tend to stretch their activities beyond their managerial and institutional abilities. As such most of the people collect much money without proper business plans, in which most do not manage the loan and have difficulty in repaying. Also, sometimes SACCOS give loans to the ineligible applicants, for example, those who have no enough deposits or have been members for a short time that their behaviors are not well known. In the case of the level of liquidity, the study found mixed results for different liquidity ratios.

The risk defines as likelihood of losses resulting from events such as changes in market price and other variables. (Thapa & Rana, 2016) Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Banks should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization. (Paudel, 2012)

Cooperative concepts have ample prospects of contributing to poverty reduction, mutual growth, financial stability, and the overall development of an economy. Nepalese cooperative movement began with the objective of uplifting the socio economic status of the underprivileged rural people. Mainly, poor and illiterate people from rural areas become members in a cooperative society, and thereafter, they obtained access to capital markets with benefit sharing (Bharadwaj, 2012).

### 2.3.2 Review of Previous Theses

Luitel, (2001), conducted thesis is on "Credit Management of Nepal Bank Limited" with Different kind of accounting and statistical tools are available to meet the purpose of any study or check and analyze the fact and collected for the purpose of the study. And conclusion and findings are such as:

- The average current ration of the first period was 105.11% over 100.49% of the second period. Through the proportion of current asset greater than that of current liabilities at an average during both the periods the bank cannot be said to have a sound current ratio.
- First period of the study had better short term solvency than the second period.
- The highest and lowest current ratios for the first period were 110.25% and 101.031% in the FY 047/048 and 048/049 respectively. Whereas the same for the second period were 104.47% and 94.16% in FY 053/054 and 056/057 BS respectively.
- The FY 055/056 also showed the ration less than 100% i.e. 97.92%
- Both the period liquidity position of the bank was worsening.

Subedi, (2005) Thesis title on "Financial Performance of NABIL Bank Limited" the specific objective to collected data or information is presented in well manner of tables, diagrams, graphs etc. and those are analyzed using proper financial and statistical tools and techniques. The interpretation and comment are made along with the analysis.

Based on the analysis of the various data remarkable finding are drawn up. The major findings are as follows.

- Deposit is the part of balance sheet which always remains the biggest in amount. It is the sensitive liability among all items.

- Total liabilities and capital deposit also increase until FY 057/058 and starts to fall down.
- The proportion of debit over the total liabilities and capital is 83.85% in average.
- Fixed deposit it taken as a long term debt in the banking business; it is key department factor to capital structure
- The bank could collect the deposit is Rs 766.8459 million. In two subsequent years, it decrease and become Rs. 2254.5464 millions in the finally study years.
- The average rate is 5.89% the proportion over total liabilities and is 26.32% in average.
- The yearly change rate in fluctuating trend varied from 8.97% to 24.63%
- Shareholders equity is regularly increasing.

Gautam, (2008) Thesis of "A comparative study on financial perfomance between the commercial bank:. NABIL Bank Ltd. and Standard Chartered Bank Nepal Ltd." The genaral study of the present study is to idenitify the current situation of financial performance of joint venture banks i.e. SCBL and NBBL. The specific objective research used to various finanical toos to analyze the data to support the conclusion . the major ratios like total investment to total deposit ration, loan and advance to total deposits ratio, net profit to total assets ratio, investment on government securities to total outside investment ratio etc. to process the financial data, some common statistical toos like co-variance, coefficient of variation, mean and trend analysis are used.

Based on the analysis of the various data remarkable finding are down up. The major fining are as follows;

- The liquidity position of SCBNL is compartively better than NBBL.
- The one an average, NBBL constitutes 16.27 times of DIE ratio, which should be reduced as quickly as possible.
- The financial leverate constitute of the NBBL is 3.37 times which indicates the higher degree of financial risks.
- The average return of equity (ROE) of JVB's i.e. SCBL and NBBL are 37.36% and 21.75% respectively.

Regmi, (2009) on thesis of "Credit Management of NABIL Bank Limited" highlight that aggregate performance and condition of NABIL Bank. In the aspect of liquidity position, cash and bank balance reserve ratio shows the more liquidity poosition. Cash and bank balace to current deposit is also fluctuating trend in 5 years study period. Cash and bank balance to current deposit is also fluctuating. The average mean of cash and bank balance to interest sensitive ratio is able to maintain good financial condition.

In the statistical toos analysis, average mean, correlation analysis and trend analysis have been calculated. Correlation coefficent between total credit and total assets shows high degree of positive correlation. Correlation coefficient between total deposit and loan and advances has high degree of positive impact towards loan and advances. With the study conclusion and findings are such as:

- Assets management position of the bank shows better performance in the recent years. Non performing assets to total assets ratio is decreasing trend. The bank is able to obtain higher lending opportunity during the study period. Therefore, credit management is in good position of the bank.
- In leverage ratio, debt to equity ratio is in an increasing trend. High total debt to total assets ratio posses higher financial risk and vice-versa. It represents good condition of total assets to net worth ratio.
- In the aspect of profitability position, total net profit to gross income, the total interest income to total income ratio of bank is in increasing trend. The study shows the little high earning capacity of NABIL through loan and advances.
- Earning per share and the price earning ratio of NABIL is in increasing trend. These mean that the better profitability in the coming last years. It represents high expectation of company is market and high demand of share.
- Loan loss provision to total loan and advances ratio and none performing loan to total loan and advance ratio of NABIL is in decresing trend. The ratio is continuously decresing this indicatees that bank increasing performance. Thus, credit management is in a good position.

The study is conducted on credit management of NABIL Bank which is one of the leading banks in Nepal. NABIL ha been maintaining a sound growth rate over this period. In the study every aspect of banks seems to be better and steady in every year. Its all analysis indicateds better future of concern bank.

Barali, (2011) on his thesis "Loan Management and recovery: A Case study of Nepal Bank Limited" has objectiv the study of credit management of NABIL Bank conclusion and findings are such as:

- Strong recovery policy is adopting by bank for reducing to decrease outstanding amount.
- Credit disbrushmnet and repayment has significant reletionship. Flow of new credit depends upon the recovery status.
- Insignificant relation between net profit and loan advance, between loan and advances and total deposit, between loan and advances and total investment, between non performing loan and loan and advances.

## 2.4 Research Gap

Mushrooming growth of cooperatives took place after the restoration of democracy in 1990. In 1992, a new cooperative act was enacted and the democratic government of Nepal adopted liberal economic policies. At the end of fiscal year 2017/18, there were 6,305,581 members who collaborated in 34,512 cooperatives. (MOCPA, Statistics of Cooperative, 2017) Currently, some highly recognized businesses have also joined cooperatives, which have become a wonderful business model in urban areas. Although, performance of enterprising cooperatives has increased due to capital access, risk sharing, and community support, it has also increased caution for unethical issues such as adverse selection problems, a lack of transparency, the misuse of funds, and poor governance systems. Therefore, some large, reputable cooperatives have recently failed. In mushrooming growth of cooperatives study and monitoring to date by date for the reduce risk minimization it will be other study must be needed in future.

# CHAPTER 3:
# RESEARCH METHODOLOGY

This chapter is presented for achieving the predetermined objective which is already stated. One various statically and financial instrument will be used for the required purpose. It counts on the resource and techniques available and to the extent of their reliability and validity in this chapter. This research methodology has primary sought the evaluation of the credit risk minimization practices of the target cooperative. It consists of research design, population and sample study, sources of data, data processing procedure and technique of analysis of data. The research methodology adopted in this chapter follows some limited but crucial steps aimed to achieve the objective of the research. Research methodology refer to the various sequential steps (along with a rationale of each such steps) to be adopted by researcher in studying a problem with certain objective in view.

## 3.1 Research design

Research design is the conceptual structure within which research is conducted. It contributes the blueprint for the collection, measurement and qualities of data. Research design is the arrangement of conditions for collection and analysis of data. Research design serves as a framework for the study, guiding the collection and analysis of the data, Research tools to be utilized. This study based on descriptive research design, accomplish with only secondary data. To achieve the specific objectives of the study descriptive research design has been carried out in term of credit risk management of cooperative.

## 3.2 Population and Sample

The total 34,512 cooperatives constituted as the population of the study out of 34,512 cooperative 13,578 cooperative are saving and credit cooperative all over in Nepal. In 77 districts of Nepal cooperative there 399 cooperative are in Bardiya district and 78 cooperative are saving and credit cooperative. In total 78 cooperative 3 saving and credit cooperatives used for the research paper. So among the various cooperatives in Nepal, the intervening sample are selected on the basis of convenience sampling method and they are as Bardiya with Biwassilo Saving and Credit Cooperatives

Society Ltd., Pragati Saving and Credit Cooperatives Society Ltd., Sirjana Saving and Credit Cooperatives Society Ltd. will be taken as sample for the study.

## 3.3 Sources of Data

This study based in secondary data nature because the study requires the information about the credit risk management of cooperatives which can be obtained through the annual report and audit reports issued by cooperatives.

## 3.4 Data Collection and processing procedure

The collected data presented in tabulated form with various heads and statistical analysis will be carried out to enlighten the study.

## 3.5 Data analysis tools and techniques

For the analysis of the research study, the following financial and statistical tools will be used.

- PEARLS Analysis (Specially use in Cooperative risk Management)

The purpose for including a myriad of indicators is to illustrate how change in one ratio has ramifications for numerous other indicators.

P= Protection

E= Effective financial structure

A= Asset quality

R= Rates of return and costs

L= Liquidity and

S= Signs of growth

**P= Protection**

Adequate protection of assets is a basic principle of the new credit union model. Protection is measured by 1) comparing the adequacy of the allowances for loan losses against the amount of delinquent loans and 2) comparing the allowances for investment losses with the total amount of non-regulated investments. Protection against loan losses is deemed adequate if a credit union has sufficient provisions to cover 100% of all loans delinquent for more than 12 months, and 35% of all loans delinquent for 1-12 months.

| Indicators of Excellence | Standards of Excellence |
|---|---|
| P1. Allowance for Loan Losses/Delinquency > 12 months | 100% |
| P2. Net Allowance for Loan Losses/Delinquency of 1-12 months | 35% |
| P3. Total Write-off of Delinquent Loans > 12 months | 100% |
| P4. Annual Loan Write-offs/Average Loan Portfolio | Minimal |
| P5. Accumulated Loan Recoveries/Accumulated Loan Write-offs | 100% |
| P6. Solvency (Net Value of Assets/Total Shares and Deposits) | >= 110% |

**E= Effective financial structure**

The financial structure of the credit union is the single most important factor in determining growth potential, earnings capacity, and overall financial strength. The PEARLS system measures assets, liabilities and capital, and recommends an "ideal" structure for credit unions.

| Indicators of Excellence | Standards of Excellence |
|---|---|
| E1. Net Loans/Total Assets | 70%-80% |
| E2. Liquid Investments/Total Assets | Maximum 20% |
| E3. Financial Investments/Total Assets | Maximum 10% |
| E4. Non-financial Investments/Total Assets | 0% |
| E5. Savings Deposits/Total Assets | 70%-80% |
| E6. External Credit/Total Assets | Maximum 5% |
| E7. Member Share Capital/Total Assets | 10-20% |
| E8. Institutional Capital/Total Assets | Minimum 10% |
| E9. Net Institutional Capital/Total Assets | Same as E8 |

**A= Asset quality**

A non-productive or non-earning asset is one that does not generate income. An excess of non-earning assets affects credit union earnings in a negative way. The following PEARLS indicators are used to identify the impact of non-earning assets

| **Indicators of Excellence** | **Standards of Excellence** |
|---|---|
| A1. Total Loan Delinquency/Gross Loan Portfolio | <= 5% |
| A2. Non-earning Assets/Total Assets | <= 5% |
| A3. Net Zero Cost Funds (Net Institutional & Transitory Capital + Non-Interest-bearing Liabilities)/Non-earning Assets | > 200% |

**R= Rates of return and costs**

The PEARLS system segregates all of the essential components of net earnings to help management calculate investment yields and evaluate operating expenses. In this way, PEARLS demonstrates its value as a management tool. Unlike other systems that calculated yields on the basis of average assets, PEARLS calculates yields on the basis of actual investments outstanding. This methodology assists management in determining which investments are the most profitable

| **Indicators of Excellence** | **Standards of Excellence** |
|---|---|
| R1. Net Loan Income/Average Net Loan Portfolio | Entrepreneurial Rate |
| R2. Total Liquid Investments Income/Average Liquid Investments | Market Rates |
| R3. Total Financial Investment Income/Average Financial Investments | Market Rates |
| R4. Total Non-financial Investment Income/Avg. Non-financial Investments | > R1 |
| R5. Total Interest Cost on Savings Deposits/Average Savings | > Inflation |

| | |
|---|---|
| Deposits Market Rates | |
| R6. Total Interest Cost on External Credit/Average External Credit | Market Rates |
| R7. Total Interest (Dividend) Cost on Shares/Average Member Shares Market Rates | >= R5 |
| R8. Total Gross Income Margin/Average Total Assets Variable – | Linked to R9, R11, R12 |
| R9. Total Operating Expenses/Average Total Assets | 5% |
| R10. Total Loan Loss Provision Expense/Average Total Assets | Dependent on Delinquent Loans |
| R11. Non-recurring Income or Expense/Average Total Assets | Minimal |
| R12. Net Income/Average Total Assets | Linked to E9 |

**L= Liquidity**

Effective liquidity management becomes a much more important skill as the credit union shifts its financial structure from member shares to more volatile deposit savings. In many movements following the traditional model, member shares are very illiquid and most external loans have a long payback period, therefore there is little incentive to maintain liquidity reserves. Liquidity is traditionally viewed in terms of cash available to lend a variable exclusively controlled by the credit union. With the introduction of withdraw able savings deposits, the concept of liquidity is radically changed. Liquidity now refers to the cash needed for withdrawals a variable the credit union can no longer control.

| **Indicators of Excellence** | **Standards of Excellence** |
|---|---|
| L1. ST Investments + Liquid Assets – ST Payables/Savings | Deposits Minimum 15% |
| L2. Liquidity Reserve/Savings Deposits | 10% |

| | |
|---|---|
| L3. Non-earning Liquid Assets/Total Assets | < 1% |

**S= Signs of growth**

The only successful way to maintain asset values is through strong, accelerated growth of assets, accompanied by sustained profitability. Growth, in and of itself, is insufficient. The advantage of the PEARLS system is that it links growth to profitability, as well as to the other key areas by evaluating the strength of the system as a whole.

| **Indicators of Excellence** | **Standards of Excellence** |
|---|---|
| S1. Growth in Loans to Members Dependent on | E1 |
| S2. Growth in Liquid Investments Dependent on | E2 |
| S3. Growth in Financial Investments Dependent on | E3 |
| S4. Growth in Non-financial Investments Dependent on | E4 |
| S5. Growth in Savings Deposits Dependent on | E5 |
| S6. Growth in External Credit Dependent on | E6 |
| S7. Growth in Member Shares Dependent on | E7 |
| S8. Growth in Institutional Capital Dependent on | E8 |
| S9. Growth in Net Institutional Capital Dependent on | E9 |
| S10. Growth in Membership | > 12% |
| S11. Growth in Total Assets | > Inflation |

In summary we studies only key indicators of PEARLS monitoring tools. That is as follows.

| **Key PEARLS Indicators** | **Standards of Excellence** |
|---|---|
| P1. Allowance for Loan Losses/Delinquency | > 12 months 100% |
| P2. Net Allowance for Loan Losses/Delinquency of 1-12 months | 35% |

| | |
|---|---|
| E1. Net Loans/Total Assets | 70%-80% |
| E5. Savings Deposits/Total Assets | 70%-80% |
| E6. External Credit/Total Assets | Maximum 5% |
| E9. Net Institutional Capital/Total Assets | Minimum 10% |
| A1. Total Loan Delinquency/Gross Loan Portfolio | <= 5% |
| A2. Non-Earning Assets/Total Assets | <= 5% |
| R7. Total Interest (Dividend) Cost on Shares/Average Member Shares Market Rates | >= R5 |
| R9. Total Operating Expenses/Average Total Assets | 5% |
| R12. Net Income/Average Total Assets | Linked to E9 |
| L1. ST Investments + Liquid Assets – ST Payables/Savings Deposits | Minimum 15% |
| S11. Growth in Total Assets | > Inflation |
| NOTE: If there is a difference between the PEARLS standards of excellence and a country's national standards of performance, then WOCCU encourages its credit union partners to opt for the more conservative of the two standards. | |

# CHAPTER 4
# RESULTS

There are many sets of financial ratio that can be employed to evaluate the performance and checkup the financial health of Financial Institutions (FIs). Among them, CAMELS framework developed by regulatory authority of the U.S banks is the common method used for evaluating the soundness of FIs. A round table group comprising of MicroRate a rating agency specializing in microfinance, Inter-American Development Bank, the Consultative Group to Assist the Poorest, the United States Agency for International Development, and two other rating agencies MCRIL and PlaNet Rating, developed a set of commonly used performance indicators for microfinance institutions (MFIs). This set of performance indicators fall into four main categories profitability, efficiency and productivity, asset quality/portfolio quality, financial management. This set of indicators is commonly known by PEAF. CAMELS is not an appropriate tool for MFIs due to the earlier mentioned reasons. PEAF also does not consider the growth rate of the total assets. But PEARLS does away the deficiencies of both CAMELS and PEAF by incorporating the growth and financial structure related indicators. This is the reason why the WOCCU and its member countries are using this to monitor, supervise and checkup the financial health of MFIs like credit unions and cooperatives. In addition, MFIs also are using PEARLS as a managerial tool to monitor and improve their performance.

## 4.1 Protection

Protection to the saving of the member-client in a cooperative can be made by providing the adequate protection to the assets. This can be made by providing the sufficient allowances for loan losses. As stated in the Theoretical Prescription, if the provision for loan losses is not made adequately, asset value is inflated and fictitious earnings are reported. In such a condition, cooperative may impair the saving deposits by giving away the dividend and bonus from institutional capital and paying income tax to the government for fictitious income. So, regulatory authority and management should regularly monitor the adequacy of allowances for loan losses to protect the saving

As stated earlier, sample cooperatives are out of the jurisdiction of NRB. So it does not have to comply with the directives of NRB issued with respect to the allowances for loan losses. Its regulation also does not have provision for allowances for loan losses. So, it has not followed the specified policy for loan loss provision. It has charged off the loan loss provision expenses to profit and loss account arbitrary.

**Table 4.1 protection ratio**

| **Indicators of Excellence** | **SE** | BISACCOS | | | | | | PSACCOS | | | | | | SSACCOS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **1** | **2** | **3** | **4** | **5** | **Avg.** | **1** | **2** | **3** | **4** | **5** | **Avg.** | **1** | **2** | **3** | **4** | **5** | **Avg.** |
| P1. Allowance for Loan Losses/Delinquency > 12 months | 100% | 100% | 100% | 100% | 100% | 100% | **100%** | 100% | 100% | 100% | 100% | 100% | **100%** | NA | NA | NA | 100% | NA | **100%** |
| P2. Net Allowance for Loan Losses/Delinquency of 1-12 months | 35% | 35% | 35% | 35% | 35% | 35% | **35%** | 35% | 35% | 35% | 35% | 35% | **35%** | NA | NA | NA | 35% | 35% | **35%** |
| P3. Total Write-off of Delinquent Loans > 12 months | 100% | 100% | 100% | 100% | 100% | 100% | **100%** | 100% | 100% | 100% | 100% | 100% | **100%** | NA | NA | NA | 100% | 100% | **100%** |
| P4. Annual Loan Write-offs/Average Loan Portfolio | Minimal | NA | NA | NA | NA | NA | **NA** | NA | NA | NA | NA | NA | **NA** | NA | NA | NA | NA | NA | **NA** |
| P5. Accumulated Loan Recoveries/Accumulated Loan Write-offs | 100% | 100% | 100% | 100% | 100% | 100% | **100%** | 100% | 100% | 100% | 100% | 100% | **100%** | NA | NA | NA | 100% | 100% | **100%** |
| P6. Solvency (Net Value of Assets/Total Shares and Deposits) | >= 110% | 111% | 112% | 112% | 111% | 111% | **111%** | 116% | 92% | 98% | 113% | 104% | **105%** | 110% | 111% | 111% | 108% | 111% | **110%** |

Source: Worked out from the data extracted from annual reports

The WOCCU model prescribed that any credit union should provide 100 percent allowances for loan past due for more than one year. P1 is provision for all three cooperative but Shrijana cooperative doesn't find out of any kind of loan provision 100 percent in 069/070 to 071/072 and 073/074. This implies that SSCCOS has adequate provision to cover the bad debt losses. P2 shows that loan loss provision of two cooperative adequate to cover the possible loan loss on substandard and doubtful loan. But SSCCOS doesn't have any allowance for past one month loan outstanding. It shows that there is no loan outstanding. According to the WOCCU model, allowance for the loan delinquent from 1-12 months should be 35 percent of such loans. Measure the degree of protection that the credit union has for member savings and shares in the event of liquidation of the credit union's assets and liabilities (P6) also bolsters that savings are at risk. This indicator measures the relative worth of one unit of member-client saving after adjusting known and probable losses. BISACCOS and SSACCOS has sufficient of solvency ratio but PSACCOS is not sufficient solvency ratio to meet the WOCCU standard.

## 4.2 Effective Financial Structure

The financial structure of the credit union is the single most important factor in determining growth potential, earnings capacity, and overall financial strength. This component of PEARLS focuses on the effective management of sources and uses of funds of MFIs. Management of use of funds seems satisfactory during the study period. The PEARLS system measures assets, liabilities and capital, and recommends an "ideal" structure for credit unions. The following ideal targets are promoted:

**Assets**

- 95% productive assets composed of loans (70-80%), and liquid investments (10-20%)
- 5% unproductive assets composed of primarily fixed assets (land, buildings, equipment etc.)

Credit unions are encouraged to maximize productive assets as the means to achieve sufficient earnings. Since the loan portfolio is the most profitable asset of the credit union, the World Council of Credit Unions, Inc. recommends maintaining 70-80% of total assets in the loan portfolio. Excess liquidity is discouraged because the margins on liquid investments (e.g., savings accounts) are significantly lower than those earned on the loan portfolio. Non-Earning assets are also discouraged because once purchased, they are often difficult to liquidate. The only effective way to maintain the ideal balance between productive and unproductive assets is by increasing the volume of productive assets.

**Liabilities**

- 70-80% member deposit savings

A healthy percentage of deposit savings indicates that the credit union has developed effective marketing programs and is well on its way to achieving financial independence

It also indicates that members are no longer "saving" in order to borrow money, but are instead saving because of the competitive rates offered.

**Capital**

- 10-20% member share capital
- 10% institutional capital (undivided reserves)

Under the new capitalization system, member shares are de-emphasized and replaced with institutional capital. This capital has three purposes:

1. Finance Non-Earning Assets
2. Improve Earnings
3. Absorb Losses

The PEARLS measurement of institutional capital is a key ratio that is linked to a number of other operational areas. If deficient, it can quickly signal where potential weaknesses might exist in other areas of the operation. (Richardson, 2009).

**Table 4.2 Effective Financial Structure ratio**

| Indicators of Excellence | Std. Excellence | BISACCOS | | | | | | PSACCOS | | | | | | SSACCOS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | **Avg.** | 1 | 2 | 3 | 4 | 5 | **Avg.** | 1 | 2 | 3 | 4 | 5 | **Avg.** |
| E1. Net Loans/ Total Assets | 70%-80% | 80% | 83% | 80% | 85% | 85% | **83%** | 94% | 74% | 69% | 85% | 75% | **80%** | 91% | 85% | 84% | 75% | 80% | **83%** |
| E2. Liquid Investments/ Total Assets | Maximum 20% | 0% | 0% | 0% | 0% | 0% | **0%** | 0% | 0% | 0% | 0% | 0% | **0%** | 0% | 0% | 0% | 0% | 0% | **0%** |
| E3. Financial Investments/ Total Assets | Maximum 10% | 0.9% | 0.1% | 0.1% | 0.3% | 0.2% | **0.3%** | 0.2% | 0.2% | 0.2% | 0.2% | 0.2% | **0.2%** | 0.4% | 0.4% | 0.5% | 0.4% | 0.4% | **0.4%** |
| E4. Non-financial Investments / Total Assets | 0% | 0% | 0% | 0% | 0% | 0% | **0%** | 0% | 0% | 0% | 0% | 0% | **0%** | 0% | 0% | 0% | 0% | 0% | **0%** |
| E5. Savings Deposits/ Total Assets | 70%-80% | 63% | 56% | 58% | 60% | 58% | **59%** | 67% | 63% | 64% | 67% | 70% | **66%** | 65% | 75% | 74% | 75% | 77% | **73%** |
| E6. External Credit/ Total Assets | Maximum 5% | 13% | 24% | 22% | 19% | 20% | **19%** | 13% | 14% | 9% | 8% | 4% | **10%** | 15% | 4% | 5% | 5% | 3% | **6%** |
| E7. Member Share Capital/ Total Assets | 10-20% | 8% | 7% | 7% | 7% | 8% | **8%** | 7% | 8% | 9% | 9% | 0% | **7%** | 8% | 8% | 9% | 10% | 5% | **8%** |
| E8. Institutional Capital/ Total Assets | Minimum 10% | 7% | 6% | 6% | 6% | 6% | **6%** | 14% | 9% | 9% | 9% | 10% | **10%** | 5% | 5% | 6% | 6% | 6% | **6%** |
| E9. Net Institutional Capital/ Total Assets | Same as E8 | 7% | 6% | 6% | 6% | 6% | **6%** | 14% | 9% | 9% | 9% | 10% | **10%** | 5% | 5% | 6% | 6% | 6% | **6%** |

Source: Worked out from the data extracted from annual reports

This component of PEARLS focuses on the effective management of sources and uses of funds of Cooperatives. Management of use of funds seems satisfactory during the study period. Indicators that signals the effective use of funds: E1, E2, E3 and E4, are within the range fixed by the WOCCU model. E1, E2, E3 and E4 indicate that three cooperative had invested most of its funds in more productive assets, and less in non-earning and less productive assets during the study period. It has minimal level of liquid investment and financial investment, and no non-financial investment during the study period. Majority of the indicators of management sources of funds show that cooperatives had managed the sources of funds effectively during the study period. In WOCCU 70 to 80% limitation they are not meet of all Cooperative.

Savings Deposits to Total Assets (E5) BISACCOS is not meet the WOCCU limitation of 70 to 80%, it has below of 70% but near about the target. PSACCOS and SSACCOS are meet the target of 70% to 80%. External credit to total assets (E6) has highest of BISACCOS and then PSACCOS they have more external credit. They use more investment with borrowing external credit. They use external credit like 19% and 10% it is so risky for the cooperative. But SSACCOS near about the WOCCU limitation (i.e. maximum 5%).

Member Share Capital to Total Assets (E7) WOCCU model standard is 10-20% but all three cooperative have not maintain or not reach the target. Its shows that they have not sufficient capital, and we know that capital is most commanding source of the cooperative and other institution. Institutional Capital to Total Assets or Net Institutional Capital to Total Assets E8 and E9 are stretched to only cooperative PSACCOS at 10% just but other two cooperative doesn’t meet the benchmarks. Three cooperative has financed around 75 percent to 80 percent of its assets with saving deposits which is within the range prescribed by the WOCCU model. This implies that cooperatives have effective marketing programs and is well on its way to achieving financial independence.

Member share capital also is within the range of the WOCCU model. Both E8 and E9 are far below the WOCCU benchmark. Institutional capital is the second line of defense to absorb unexpected losses. As stated earlier in Theoretical Prescription, institutional capital includes all legal reserves and surplus created either from the accumulation of net income or from capital donation. Low level of E8 implies that set aside insufficient reserves and retained low level of earning in the business.

### 4.3 Assets Quality

Quality of assets of cooperative affects its earning power. Investment in non-earning assets and increase in the assets at risk deteriorate the earning power of a cooperative, decrease the institutional capital, and finally lead it to the liquidation. PEARLS uses these three indicators-delinquency ratio, percent of non-earning ratio and financing of none-earning assets to identify the impact of non-earning assets. A non-productive or non-earning asset is one that does not generate income. An excess of non-earning assets affects credit union earnings in a negative way. The following PEARLS indicators are used to identify the impact of non-earning assets:

- Delinquency Ratio

  PEARLS ratios, the delinquency ratio is the most important measurement of institutional weakness. If delinquency is high, it usually affects all other key areas of credit union operations. By using the PEARLS formula to accurately measure delinquency, credit unions are properly informed of the severity of the situation before a crisis develops. The ideal goal is to maintain the delinquency rate below 5% of total loans outstanding.

- Percentage of Non-Earning Assets

  A second key ratio is the percentage of non-earning assets owned by the credit union. The higher the ratio, the more difficult it is to generate sufficient earnings. The goal also limits non-earning assets to a maximum of 5% of the total credit union assets.

- Financing of Non-Earning Assets

  While reducing the percentage of non-earning assets is important, the financing of those assets is just as important. Traditionally, credit unions use member share capital to finance the purchases of fixed assets. Under the WOCCU model, the objective is to finance 100% of all non-earning assets with the credit union's institutional capital, or with other liabilities that have no explicit financial cost. By using no-cost capital to finance those assets, credit union earnings are not unduly affected. This is one of the strong arguments supporting the capitalization of all net earnings to upgrade old buildings and worn-out equipment.

**Table 4.3 Assets Quality**

| Indicators of Excellence | Excellence | BISACCOS | | | | | | PSACCOS | | | | | | SSACCOS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | **Avg.** | 1 | 2 | 3 | 4 | 5 | **Avg.** | 1 | 2 | 3 | 4 | 5 | **Avg.** |
| A1. Total Loan Delinquency/Gross Loan Portfolio | <= 5% | 3.4 % | 5.3 % | 4.3 % | 3.5 % | 2.5 % | **3.8%** | 0.2 % | 26.1 % | 24.0 % | 0.0 % | 13.7 % | **12.8%** | 0.0% | 0.0 % | 0.0 % | 0.3 % | 1.7 % | **0.4%** |
| A2. Non-earning Assets/Total Assets | <= 5% | 8.5 % | 6.2 % | 5.0 % | 4.5 % | 3.9 % | **5.6%** | 3.3 % | 3.5 % | 8.2 % | 7.6 % | 8.8 % | **6.3%** | 4.2% | 3.7 % | 4.2 % | 3.1 % | 3.7 % | **3.8%** |
| A3. Net Zero Cost Funds / Non-earning Assets | > 200 % | 74% | 119 % | 151 % | 165 % | 192 % | **140.2%** | 451 % | 257 % | 112 % | 131% | 115 % | **213.4%** | 117% | 247 % | 143% | 198 % | 191 % | **179.5%** |

Source: Worked out from the data extracted from annual reports.

Loan portfolio occupies the largest proportion in total assets of cooperatives. The largest source of risk of any cooperative resides in its loan portfolio. Thus, risk, in case of a cooperative, largely depends on the quality of loan portfolio. The WOCCU has designed 3 indicators to measure asset quality: A1, A2 and A3.

A1 measures the proportion of delinquent loan in the gross loan portfolio. A1 of BISACCOS and SSACCOS has limitation, they have minimum of 5%. They have average 3.8% and 0.4% but PSACCOS has highest percentage of A1 (i.e. 12.8%). It is too highest percentage and risk for the cooperative.

Similarly, the quality of assets can be measured in term of the proportion of nonearning assets such as cash, non-interest earning money checking accounts, account receivable, fixed assets, to the total assets of a cooperative. Such assets should not exceed 5 percent of total assets of a cooperative. BISACCOS and PSACCOS has highest score of the non-earning asset and SSACCOS has limit with WOCCU profile. WOCCU has limitation of non-earning assets to total assets standard excellence is less than and equal to 5 percent.

Increase in non-earning assets deteriorates the overall profitability of an MFI. If they are financed with net zero cost funds, investment in non-earning assets does not affect the profitability adversely. In general, non-earning assets should be financed with zero cost funds. The decrease in net zero cost funds to non-earning ratio shows deterioration of asset quality and vice versa. It should not come down below 200 percent of total non-earning assets of a cooperative. In the case of BISACCOS and SSACCOS, this ratio is below this benchmark of the WOCCU model. PSACCOS has sufficient ratio of the WOCCU model.

## 4.4 Rates of Return and Costs

The PEARLS system segregates all of the essential components of net earnings to help management calculate investment yields and evaluate operating expenses.

In this way, PEARLS demonstrates its value as a management tool. Unlike other systems that calculated yields on the basis of average assets, PEARLS calculates yields on the basis of actual investments outstanding. This methodology assists management in determining which investments are the most profitable.

It also permits the credit unions to be ranked according to the best and worst yields. By comparing financial structure with yields, it is possible to determine how effectively the credit union is able to place its productive resources into investments that produce the highest yield. These powerful analysis techniques help management stay abreast of the financial performance of the credit union.

## Table 4.4 Rates of Return and Costs

| Indicators of Excellence | SE | BISACCOS | | | | | | PSACCOS | | | | | | SSACCOS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **1** | **2** | **3** | **4** | **5** | **Avg.** | **1** | **2** | **3** | **4** | **5** | **Avg.** | **1** | **2** | **3** | **4** | **5** | **Avg.** |
| R1. Net Loan Income/Average Net Loan Portfolio | Entrepreneurial Rate | 14.4 % | 18.7 % | 18.3 % | 16.8 % | 17.6 % | **17.2%** | 16.5 % | 15.2 % | 13.2 % | 12.0 % | 13.9 % | **14.1%** | 12.9 % | 13.2 % | 13.8 % | 13.3 % | 15.6 % | **13.8%** |
| R2. Total Liquid Investments Income/Average Liquid Investments | Market Rates | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** |
| R3. Total Financial Investment Income/Average Financial Investments | Market Rates | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 7.1 % | **1.4%** | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** | 1.2 % | 2.1 % | 0.0 % | 0.0 % | 0.0 % | **0.7%** |
| R4. Total Non-financial Investment Income/Avg. Non-financial Investments | > R1 | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** |
| R5. Total Interest Cost on Savings Deposits/Average Savings Deposits Market Rates | > Inflation | 9.7 % | 12.8 % | 8.7 % | 8.4 % | 8.9 % | **9.7%** | 9.3 % | 10.2 % | 8.9 % | 9.8 % | 9.5 % | **9.5%** | 7.1 % | 7.3 % | 7.4 % | 7.0 % | 7.3 % | **7.2%** |
| R6. Total Interest Cost on External Credit/Average External Credit | Market Rates | 0.0 % | 0.0 % | 8.1 % | 7.8 % | 10.5 % | **8.8%** | 10.2 % | 12.9 % | 8.4 % | 7.7 % | 14.9 % | **10.8%** | 10.1 % | 34.5 % | 17.7 % | 1.9 % | 5.9 % | **14.0%** |
| R7. Total Interest (Dividend) Cost on Shares/Average Member Shares Market Rates | >= R5 | 10.9 % | 7.6 % | 8.3 % | 11.2 % | 11.5 % | **9.9%** | 10.7 % | 7.3 % | 3.2 % | 5.1 % | 4.3 % | **6.1%** | 7.5 % | 6.3 % | 9.6 % | 8.9 % | 5.2 % | **7.5%** |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R8. Total Gross Income Margin/Average Total Assets Variable – | Linked to R9, R11, R12 | 6.4 % | 9.3 % | 9.6 % | 8.9 % | 9.0 % | **8.6%** | 8.5 % | 8.6 % | 7.5 % | 3.8 % | 7.5 % | **7.2%** | 6.8 % | 7.9 % | 12.0 % | 6.5 % | 8.2 % | **8.3%** |
| R9. Total Operating Expenses/Average Total Assets | 5% | 1.4 % | 4.9 % | 4.7 % | 5.1 % | 4.4 % | **4.1%** | 2.2 % | 3.1 % | 2.8 % | 2.3 % | 3.8 % | **2.8%** | 3.8 % | 3.4 % | 3.2 % | 3.4 % | 3.2 % | **3.4%** |
| R10. Total Loan Loss Provision Expense/Average Total Assets | Dependent on Delinquent Loans | 0.0 % | 0.7 % | 0.7 % | 0.2 % | 0.8 % | **0.5%** | 1.3 % | 3.1 % | 2.6 % | 13.6 % | 1.9 % | **4.5%** | 1.2 % | 4.5 % | 4.2 % | 2.5 % | 1.5 % | **2.8%** |
| R11. Non-recurring Income or Expense/Average Total Assets | Minimal | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | **0.0%** |
| R12. Net Income/Average Total Assets | Linked to E9 | 5.2 % | 5.6 % | 4.0 % | 3.3 % | 3.4 % | **4.3%** | 5.0 % | 2.3 % | 2.1 % | 1.7 % | 1.3 % | **2.5%** | 2.5 % | 4.0 % | 4.5 % | 2.6 % | 2.7 % | **3.3%** |
| Inflation Rate | | 9.9 % | 9% | 7.2 % | 9.9 % | 4.5 % | **8.1%** | Source: Monetary Policy of Nepal, NRB | | | | | | | | | | | |

Source: Worked out from the data extracted from annual reports.

As stated in Theoretical Prescription, indicators of this component are categorized into two categories: indicators relating to rates of return and operational costs. R1 measures the yield on the loan portfolio. For the purpose of calculation of R1, interest income is inclusive to commission, fee, and penalty charges; and exclusive to premium on loan insurance. According to the WOCCU model, R1 should be greater than the entrepreneurial rate. Entrepreneurial return covers interest expenses, cost of operation and administration. In addition, it should earn enough to contribute to capital levels which maintain institutional capital at least 10 percent of total assets. As stated earlier, level of institutional capital is quite below the level fixed by WOCCU model and all three cooperatives are spread the target. BISACCOS have average 17.2%, PSACCOS have 14.1% and SSACCOS has 13.8%. R2 measures the yield of liquid investment. An investment that one has immediate access to, either the ability to buy or sell the investment (such as a stock or mutual fund) or the ability to access and withdraw funds (such as a savings account). Its return on liquid asset is zero because of there is no investment in stock or mutual fund and on financial investment (R3) is very low during the study period. All cooperatives are invested in share of such as line agencies but they did not show any kind of income but BISACCOS show in FY 073/074 as dividend income and SSACCOS also show in FY 069/70 and 070/071 but it is so quite low. All cooperatives has not invested its funds in non-financial assets during the study period.

Rate of return measure another components that is operational cost. R5 measure that total interest cost on savings deposits to average savings deposits and it's depend on inflation rate in BISACCOS and PSACCOS have exceed the inflation rate but SSACCOS does not maintain the saving deposit interest cost. In monetary policy last five years there is average 8.1% inflation rate in Nepal. R6 measure that total interest cost on external credit to average external credit its standard of excellence is market rate (i.e. like 10%). BISACCOS has maintain the external credit rate of 5.3%. but PSACCOS and SSACCOS have over the market rate that is 10.8% and 14% it is too high . Its shows that they cannot excess to saving deposit and cooperative bought external credit it's a high risk for the organization.

R7 measure total income to total assets and its standard excellence is more than net profit total operating cost. All cooperative has no negative expenses all cooperative are gain profit.

R8 measures whether cooperative has generated sufficient income to cover all operating expenses and allowances for loan losses and provided for adequate increases in institutional capital. R9 shows that management is increasing its efficiency in controlling the operating expenses during the study period. R10 loan loss expenses are increasing all cooperative because they invest of loan with repaid growth. R11 non-recurring income or expenses are not generated by cooperative.

R12 shows the inconsistency in the earning and institutional capital building capacity during the study period. All cooperatives have decreasing of net profit ratio.

## 4.5 Liquidity

Effective liquidity management becomes a much more important skill as the credit union shifts its financial structure from member shares to more volatile deposit savings. In many movements following the traditional model, member shares are very illiquid and most external loans have a long payback period, therefore there is little incentive to maintain liquidity reserves. Liquidity is traditionally viewed in terms of cash available to lend a variable exclusively controlled by the credit union. With the introduction of withdrawable savings deposits, the concept of liquidity is radically changed. Liquidity now refers to the cash needed for withdrawals a variable the credit union can no longer control.

**Table 4.5 Liquidity Ratio**

| Indicators of Excellence | SE | BISACCOS | | | | | | PSACCOS | | | | | | SSACCOS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | **Avg.** | 1 | 2 | 3 | 4 | 5 | **Avg.** | 1 | 2 | 3 | 4 | 5 | **Avg.** |
| L1. ST Investments + Liquid Assets – ST Payables/Savings | Deposits Minimum 15% | 17.6 % | 18.0 % | 22.6% | 15.5 % | 15.8% | **17.9%** | 3.7% | 7.5% | 21.9% | 14.4% | 18.8% | **13.3%** | 8.2% | 11.3% | 18.6% | 29.3% | 21.6% | **17.8%** |
| L2. Liquidity Reserve/Savings Deposits | 10% | 13.3 % | 19.1 % | 23.2% | 15.6 % | 16.5% | **17.5%** | 3.8% | 7.7% | 15.5% | 10.8% | 13.1% | **10.2%** | 8.2% | 15.8% | 18.3% | 29.2% | 22.5% | **18.8%** |
| L3. Non-earning Liquid Assets/Total Assets | < 1% | 2.2% | 2.3% | 1.0% | 0.7% | 0.3% | **1.3%** | 0.1% | 0.5% | 0.7% | 0.4% | 0.8% | **0.5%** | 0.5% | 0.6% | 1.8% | 0.7% | 2.2% | **1.1%** |

Source: Worked out from the data extracted from annual reports.

As stated earlier, BISACCOS and SSACCOS have maintain the liquidity ratio L1 they have 17.9% and 17.8% but PSACCOS out of the jurisdiction of NRB. It has only 13.3%. L2 shows that the cooperative liquid reserve include bank and cash balance. The WOCCU standard for the ratio is 10%, all three cooperative have above 10% .Investment in non-earning liquid assets increases the liquidity position of a cooperative but it does not earn anything. So, investment in such assets should be minimal. According to the WOCCU model, it should not exceed 1 percent of total assets. But non-earning liquid assets of BISACCOS and SSACCOS is greater than this limit during the study period. Accrued interest has occupied the considerable amount of non-earning liquid assets. The considerable amount of accrued interest in both relative and absolute term in total nonearning liquid assets threats the liquidity position. L3 measures the adequacy of the liquid cash reserves to satisfy deposit withdrawal request after paying all immediate obligation less than 30 days. L3 is BISACCOS and SSACCOS is high fluctuating during the study period, but PSACCOS is below the benchmark of the WOCCU model in 2003, 2005 and 2006. On the whole, liquidity position is deteriorating. The deteriorating liquidity position hints that BISACCOS and PSACCOS may fail to satisfy the deposit withdrawal request and come across the cooperative run problem.

## 4.6 Signs of Growth

The only successful way to maintain asset values is through strong, accelerated growth of assets, accompanied by sustained profitability. Growth, in and of itself, is insufficient. The advantage of the PEARLS system is that it links growth to profitability, as well as to the other key areas by evaluating the strength of the system as a whole. Growth is measured in five key areas:

- Total Assets
- Loans
- Savings Deposits
- Shares
- Institutional Capital

**Table 4.6 Signs of Growth Ratio**

| Indicators of Excellence | SE | BISACCOS | | | | | | PSACCOS | | | | | | SSACCOS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | **Avg.** | 1 | 2 | 3 | 4 | 5 | **Avg.** | 1 | 2 | 3 | 4 | 5 | **Avg.** |
| S1. Growth in Loans to Members Dependent on | E1 | 11.5% | 64.4% | 18.7% | 32.2% | 30.7% | **31.5%** | 60.6% | -4.1% | 0.9% | 18.6% | 11.8% | **17.6%** | 48.2% | 10.5% | 16.2% | 30.9% | 44.3% | **30.0%** |
| S2. Growth in Liquid Investments Dependent on | E2 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| S3. Growth in Financial Investments Dependent on Dependent on | E3 | -27.3% | -82.1% | 0.0% | 262.3 % | 18.1% | **34.2%** | 289.9% | 32.0% | 27.6% | 44.2% | 0.0% | **78.7%** | 45.3% | 11.9% | 69.8% | 34.0% | 13.3% | **34.9%** |
| S4. Growth in Non-financial Investments Dependent on | E4 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| S5. Growth in Savings Deposits Dependent on | E5 | 6.8% | 45.6% | 30.8% | 35.1% | 27.9% | **29.2%** | 42.4% | 13.7% | 34.9% | 20.8% | 32.7% | **28.9%** | 23.3% | 37.0% | 28.5% | 48.7% | 39.0% | **35.3%** |
| S6. Growth in External | E6 | 15.9% | 205.6 | 14.0% | 11.8% | 42.2% | **57.9%** | 181.0% | 25.8% | -8.1% | 1.7% | -37.3% | **32.6%** | 1524.2 | -70.0% | 55.8% | 47.3% | -22.6% | **307.0%** |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Credit Dependent on | | | % | | | | | | | | | | | % | | | | | |
| S7. Growth in Member Shares Dependent on | E7 | 50.9% | 48.7% | 20.7% | 36.4% | 41.7% | **39.7%** | 34.5% | 51.2% | 38.3% | 18.0% | 18.4% | **32.1%** | 28.3% | 22.7% | 41.9% | 58.3% | 25.2% | **35.3%** |
| S8. Growth in Institutional Capital Dependent on | E8 | 57.8% | 49.0% | 34.3% | 18.3% | 27.9% | **37.5%** | 167.0% | -27.2% | 37.3% | 18.6% | 33.6% | **45.9%** | 21.7% | 37.2% | 36.3% | 53.9% | 40.1% | **37.8%** |
| S9. Growth in Net Institutional Capital Dependent on | E9 | 57.8% | 49.0% | 34.3% | 18.3% | 27.9% | **37.5%** | 167.0% | -27.2% | 37.3% | 18.6% | 33.6% | **45.9%** | 21.7% | 37.2% | 36.3% | 53.9% | 40.1% | **37.8%** |
| S10. Growth in Membership | > 12% | NA | 21.9% | 128.0 % | 23.4% | 10.9% | **46.0%** | 12.1% | 12.0% | 33.5% | 16.0% | 57.7% | **26.3%** | 11.3% | 12.8% | 9.3% | 74.8% | 23.4% | **26.3%** |
| S11. Growth in Total Assets | > Inflation | 20.1% | 35.6% | 26.2% | 28.9% | 32.7% | **28.7%** | 50.6% | 21.0% | 33.9% | 14.5% | 27.0% | **29.4%** | 42.9% | 18.2% | 31.0% | 45.7% | 34.9% | **34.5%** |

Source: Worked out from the data extracted from annual reports.

Sustainable growth in different financial variables of a cooperative is important to profitability. Growth in none of the key variables is smooth during the study period. The fluctuating growth in key variables implies that cooperatives has no strategy for sustainable growth in its business. Growth rates in gross loan (G1), saving deposits (G5), institutional capital (G8) and total assets (G11) are keys to the profitability. Unless and until saving deposits and institutional capital grow. Gross loan is growing at increasing rate during the study period. As stated earlier, E1 is within the range prescribed by the WOCCU model during the study period. WOCCU model describe about G1 to G9 at three condition that are:

- To Increase the Percentage of Total Loans Outstanding (E1) S1 must be greater than S11
- To Maintain the Percentage of Total Loans Outstanding (E1), S1 must be equal to S11.
- To Decrease the Percentage of Total Loans Outstanding (E1), S1 must be less than S11

In above this condition growth rate in loan to member (G1) of BISACCOS has the positive benchmark but PSACCOS and SSACCOS have negative. Because of their growth in total assets (G11) has very high. WOCCU G11 standard of excellence is more than inflation rate so all three cooperative have succeed the limitation. And they have total assets increase rate is very high. They have average 28.7%, 29.4% and 34.5%, in this ratio other ratio has been shown negative. But all cooperative increase their value more than average inflation rate (i.e. 8.1%). Growth of membership also increase with WOCCU limitation. The increase rate of growth of membership is 46% of BISACCOS, 26.3% of both PSACCOS and SSACCOS.

## 4.7 Major Findings

Base on the analysis of the data the main findings are summarized as follows:

### 4.7.1 Protection

Protection refers to the safe of money of the member client of cooperatives and three cooperatives status is

- Allowance for loan losses above 12 month (P1), Net allowance for loan losses 1-12 month (P2), and solvency (P6) of BISACCOS has good performance showed in study period. They have generate of all allowance for the loan loss passes.
- Allowance for loan losses above 12 month (P1), Net allowance for loan losses 1-12 month (P2), and solvency (P6) of PSACCOS has average performance showed in study period. The solvency ratio is low of the limited value of WOCCU standard.
- Allowance for loan losses above 12 month (P1), Net allowance for loan losses 1-12 month (P2), and solvency (P6) of SSACCOS has poor performance showed in study period. Because of there is no found of allowance for loan loss provide and it is high risk for the cooperative but solvency ratio is good performance.

### 4.7.2 Effective Financial Structure

The financial structure determines growth potential, earnings capacity and overall financial strength of Cooperatives and results is:

- Loan investment (E1), external credit browning (E6) ratio of BISACCOS has high with the WOCCU standard and it saving ratio (E5), financial investment (E3), member share capital (E7), and institutional capital (E8) & E(9) ratio is low of excellence of standard.
- Loan investment, external credit browning ratio of PSACCOS has high with the WOCCU standard and it saving ratio, financial investment, member share capital is low of the standard but institutional capital ratio is meet the target of excellence of standard.
- Loan investment and external credit of SSACCOS has high with the WOCCU standard and it financial investment, member share capital, institutional capital ratio is low of excellence of standard. External credit browning ratio is decreasing it is the good for the cooperative. Saving of cooperative member is also excellence of the standard.

### 4.7.3 Assets Quality

We study for three main ratio loan delinquency ratio, non-earning ratio and zero cost fund ratio and result are:

- Loan delinquency ratio (A1) of BISACCOS has excellence and non-earning assets ratio (A2) and zero cost fund (A3) has not meet the excellence.
- Loan delinquency ratio of PSACCOS has high of the standard and non-earning assets ratio also increasing percentage but zero cost fund with intuitional capital meet the WOCCU standard.
- Loan delinquency ratio of SSACCOS has no found any data of loan allowance provision but two year data is found that was good and non-earning assets ratio is very good of cooperative and zero cost fund has not meet the excellence.

### 4.7.4 Rate of Return and Costs

Rate of return investment and evaluates the efficiency of management in terms of controlling of operating costs, finding result are:

- Net loan income (R1) of BISACCOS has covered above of entrepreneurial rate (entrepreneurial rate which covers financial, operating, and provisioning expenses and contributes to capital levels which maintain institutional capital at least 10 %). Interest cost of saving (R5), external borrowing (R6), dividend cost (R7) and operation cost (R9) also meet the target of inflation rate and market rate. But net profit is decreasing percentage. Financial income don't show in the financial data but some year shows income but it not enough to meet the target.
- Net loan income of PSACCOS has covered above of entrepreneurial rate. Interest cost of saving, operation cost also meet the target of inflation rate and market rate. Borrowing interest is higher rate for the target.
- Net loan income of SSACCOS has covered above of entrepreneurial rate. Interest cost of saving is stable but can't maximize of inflation rate and operation cost also meet the target of market rate. Borrowing interest is higher rate for the target.

### 4.7.5 Liquidity

Maintaining the high liquidity affects the profitability adversely, so the finding result are:

- Liquidity of BISACCOS has ST investment, liquid assets, payable (L1) is reached the target but liquidity reserve has high for the target, it show of satisfaction liquidity ratio is good and non-earning liquid investment also high it shows that more than 1% non-earning liquid asset is available in the cooperative.
- Liquidity of PSACCOS has ST investment, liquid assets, payable is does not range the WOCCU and liquidity reserve has the target and non-earning liquid investment better in the cooperative.
- Liquidity of SSACCOS has ST investment, liquid assets, payable are with the target. Liquidity reserve has excellence for the target but is high and non-earning liquid investment is near the excellence.

### 4.7.6 Sign of Growth

Sign of growth of assets accompanied with sustained profitability is the key to the successful cooperatives and finding are:

- Main of key point growth of member (S10) is excellence of the target and growth of total asset (S11) also maintain the all three cooperative. And other ratio also above the average inflation rate (i.e. 8.1%)

# CHAPTER 5:
# CONCLUSION

This chapter is an accomplished specific and indicative enclose which contains summary, major finding and conclusion of finding and recommendations. Brief introduction to all chapters of the study and genuine information of the present situation under the topic of the study is defined on summary. Conclusion and findings are analysis of applicable data by using various financial and statistical tools, which presents strengths, weakness, opportunities and threats of the cooperatives, also suggestions are obtainable in recommendation, which is arranged on the base from finding and conclusion

## 5.1 Summary

Any country depends upon the economic development for developing the country. To strength, the economy of any country both the private and public sector should play a great role, which contributing to our nation. The process of the economic development depends upon various factors, however economists are now convinced that capital formation and its proper utilization plays a paramount role for rapid economic development. All the economic activates of each and every country are greatly influenced by the banking and financial business of the county.

Cooperative is community business, cooperative in Nepalese context can potentially support breaking down the vicious cycle of poverty. Cooperative means for income, social and perception based poverty reduction. Upcoming challenges are result of weak legal institutional arrangements with weak monitoring. A rupee in cooperative means different from a rupee in commercial bank from poverty reduction perspective. It is better we manage cooperative in principle and norms. This is the most important challenge in turning cooperative toward poverty reduction sector. In Nepal 34,512 and more of cooperative are directly involved in community people and cooperatives are engage on the financial transition. In this case we need to study of credit management and utilization of fund, cooperative movement and cooperative wealth maximization.

The study was aimed for comparative study on Credit risk management in saving and credit cooperative limited of 3 cooperatives with use of PEARLS monitoring system to know of credit risk management. And we study that their assets utilization, liquidity available, whole financial health checkup of every financial statement and the loan process of the organization to shareholder.

The study of PEARLS analysis we study of the all components of PEARLS monitoring tools in briefly. Protection refers to the safe of money of the member client of cooperatives. It is remarkable that every client should be member. Anybody else can open the saving account and borrow the money only after receiving membership of the cooperative. So, every member is the client and every client is the member of a cooperative. Protection can be provided by making adequate allowances for loan losses. The PEARLS system evaluates the adequacy of protection afforded to the cooperative by comparing the loan loss provision to amount of loan at risk. In this system, loan loss provision is considered as the first line of defense against non-performing assets. The degree of protection is measured by six different ratios-P1, P2, P3, P4, P5 and P6.

Another tools is effective financial structure. The financial structure determines growth potential, earnings capacity and overall financial strength of Cooperatives. Healthy financial structure is one facet of the financial structure and effective use of the resources is another one. So, PEARLS system measures the effective financial structure in both financing of resources and effective use of the resources of cooperatives.

Another tools is assets quality of cooperative. Quality of assets of cooperative affects its earning power. Investment in non-earning assets and increase in the assets at risk deteriorate the earning power of a cooperative, decrease the institutional capital, and finally lead it to the liquidation. PEARLS uses these three indicators-delinquency ratio, percent of non-earning ratio and financing of none-earning assets to identify the impact of non-earning assets.

Next tools is Rate of return and costs of cooperatives. This component of PEARLS system segregates the different components of yield on investment and evaluates the efficiency of management in terms of controlling of operating costs. Further, management can rank the different components of investments by comparing the yields on different components of the investments and identify the problem area of operational cost of cooperatives. The indicators of this component are categorized into two categories: indicators relating to rates of return and operational costs.

Next tools is liquidity of the cooperatives. Maintaining the high liquidity affects the profitability adversely. Since, investment in the liquid assets yields very low rate of return. Some of the liquid assets such as cash on hand and checking account yield nothing at all. Therefore, cooperatives should maintain proper balance between the liquidity, profitability and reduce of the credit risk.

At last tools is the sign of growth of cooperatives, growth of assets accompanied with sustained profitability is the key to the successful cooperatives. PERALS system links the growth to profitability and other key areas. Growth is measured in these key areas: total assets, loan, liquid investment, financial investment, saving deposits, external credit, member share capital, institutional capital, and number of members. Growth in total assets is one of the most important ratios. Strong and consistent growth in total assets brings about the improvements in many key ratios

## 5.2 Conclusion

This study adds knowledge on credit risk management in SACCOS by analyzing the using PEARLS ratio. As such most of the people collect much money without proper business plans, in which most do not manage the loan and have difficulty in repaying. Also, sometimes SACCOS give loans to the ineligible applicants, for example, those who have no enough deposits or have been members for a short time that their behaviors are not well known. In the case of the level of liquidity, the study found mixed results for different liquidity ratios. From these findings, the implication is that the financial performance is important in showing the loan repayment performance, assets utilization, liquidity of the organization, loan mobilization, operation cost minimization and shareholder wealth maximization. We study with all parts and all financial statement of the three cooperatives, as cooperatives based microcredit institutions, SACCOS should focus on relevant performance, which focuses on maximizing the member’s welfare and not maximizing profit.

We study all parts of financial statement we conclusion that Protection of money of all three cooperative they allowance for loan loss and solvency ratio of BISACCOS and SSACSOS has standard with WOCCU but PSACCOS only doesn’t meet the target. For the effective financial structure three cooperative loan investment ratio, external credit ratio is high with WOCCU standard but saving of shareholders, member share capital and institution capital is low of the standard. The assets quality of the cooperative loan delinquency only PSSACOS has high and non-earning assets ratio is high of the standard of BISACCOS and PSSACOS and also zero cost fund BISACCOS and SSACCOS doesn't meet the assets quality ratio.

Rate of return of the three cooperative are good but in three cooperative investment amount they did not show any kinds of income to investment so it is not actual result for the income for investment. And another parts of cost SSACCOS saving interest cost does not meet the standard. The inflation rate average in five years is 8.1 % but SSACCOS interest saving cost only 7.2%. External borrowing interest cost is high of the PSSACOS and SSACCOS. And other rate of cost and normal of the standard.

In a credit risk management depend on the liquidity of the cooperative, only PSACCOS has low level of adequacy of the liquid cash reserves to satisfy deposit withdrawal requests, after paying all immediate obligations <30 days, it has only 13.3% and it is low of the WOCCU standard. Non-earning liquid assets (i.e. cash) BISACCOS and SSACCOS has above the standard. At the last of the ratio is sign of growth of three cooperative is positive with the inflation rate and increase of all ratio also high with the inflation rate.

In PEARLS monitoring tools we found that main credit risk management tools of such as liquidity ratio, loan portfolio ratio, loan delinquency ratio, return of the loan investment ratio are found normal and meet the target average. Some year are variability but in whole study there is normal. All cooperative follows the credit risk management and them fellow by their own loan procedure policy that help to credit risk minimization of cooperative. NEFSCUN also monitoring all cooperative in date to date for when the need so in last all cooperative are normal and they has follow risk minimization tools and conserve credit risk.

## 5.3 IMPLICATION

According to the analysis the following suggestion are highlights to put forward for the future improvement of three cooperatives.

- In protection of the money, cooperative categorized the loan at their doubtful debt provision for the cooperative department standards 2068. Cooperative department standard categorized three parts of loan that are good, inferior (1-12 moth) and bad (1 year above) and the provision to bad debt good for 1%, inferior for 35% and bad for 100%.

- Liquid investment and Financial investment is nominal so for all cooperative recommended for the increase their investment in bond and share capital market.
- Saving deposit ratio is low for the standard so kindly request to increase the saving ratio because the cooperative main objective is saving then credit. And also reduce the external credit borrowing is too high of the cooperative because external credit interest cost and other related cost also high, it create high risk for the cooperative.
- Cash and bank balance of cooperatives is high. Cooperative efficiency should be increased to satisfy the demand of depositor at low level of cash and bank balance does not provide return to the cooperative. BISACCOS and SSACCOS have high liquidity ratio and non-earning liquid ratio also high. In the case some percentage of the cash and bank balance should be invested in loan and maintain the liquidity standard.
- Net profit of all cooperative are decreasing. Net profit is the key point of wealth maximization of shareholder. So increasing net profit study and monitoring of loan investment process and reduce delinquency loan.

# REFERENCES

(n.d.). Retrieved 02 12, 2018, from Wikipedia: https://en.wikipedia.org/wiki/Cooperative

Baral, K. J. (2006). *Financial Health Check-up of Pokhara Royal Co-operative Society Limited in the Framework of PEARLS* (Vol. Vol. III No. 1). The Journal of Nepalese Business Studies.

Barali, C. (2011). *Loan Management and Recovery(A Case Study of Nepal Bank Limited).* Tribhuvan Univercity. An Unpublished Master Thesis.

Bharadwaj, B. (2012). "Roles of Cooperatives in Poverty Reduction: A Case of Nepal". *Administration and Management Review, Vol. 24, No. 1, January, 2012*, p.120-139.

Chhabra, T., & Taneja, P. (1991). *Law and Practice of Banking.* New Delhi: J.C. kaur to Dhanpat Rai and Sons Private Limited.

Djan, G. O., Stephen, F., Bawuah, J., Halidu, O. B., & Kuuto, P. K. (2015). Credit Risk Management and Its Impact on Financial Performance of Listed Banks in Ghana. *International Journal of Financial Markets, Vol. 2, No. 2, 2015*, p.24-32.

Fujo, K. G., & Ali, A. I. (2016). Factors Affecting Financial Performance of Savings and Credit. *The International Journal of Business Managemtent, Kenya*, p.7.

Gautam, R. (2008). A comparative study on financial perfomance between the commercial bank:. *NABIL Bank Ltd. and Standard Chartered Bank Nepal Ltd., An Unpublished Master Thesis*. Kathmandu: Tribhuvan Univercity.

International Cooperative Alliance (ICA). (1995). *The Statement of Cooperative Identity*. Geneva: ICA.

Kipngetich , S., & Muturi, W. (2015). Effect of Credit risk Management on Financial Performance of Savings and Credit Cooperative Society in Kenya. *The Strategic Journal of Business and Change Management, Vol. 2 (44), May 21, 2015*, p. 900-915.

Lagat, F. K., Mugo, R., & Otuya, R. (2013). Effect of Credit Risk Management Practices on Lending Portfolio Among Savings and Credit Cooperatives in

Kenya. *European Journal of Business and Management, Vol.5, No.19*, p. 93-105.

Luitel, B. (2001). Credit management of Nepal Bank Ltd. *An Unpublished Master Thesis*. Kathmandu: Tribhuvan Univercity.

MOCPA. (2017). *Statistics of Cooperative.* Kathmandu: Ministry of Cooperative and Poverty Alleviation.

Mukherjee, D. (2014, February). *Credit Management, Risk analysis & Decision making* (8th ed ed.). (A. I. Kennedy Garama Fujo, Ed.) Snow White Publications Pvt ltd.

Ndiege, B. O., Mataba, L., Msonganzila, M., & Nzilano, K. L. (2016, February). The link between financial performance and loan. *African Journal of Business Management, Vol. 10(4)*, p. 89-97.

NEFSCUN. (2017). *Introduction of Cooperative*. Retrieved from http://nefscun.org.np.

Pant, P. R. (2012). *Social Science Research and Thesis Writing* (Sixth Edition ed.). Kathmandu: Buddha Publication.

Paudel, G. P. (2012). Credit Risk Management in Nepalese cooprerative. *An Unpublished PhD Thesis proposal*. Pacheri Bari-jhunjhunu, India: Singhania University.

Regmi, B. (2009). Credit Management of NABIL Bank Limited. *An Unpublished Master Thesis*. Kathmandu: Tribhuvan Univercity.

Richardson, D. C. (2009, April). *PEARLS monitoring system.* Madison, Wisconsin, 52701, USA: The World Council of Credit Unions Toolkit Series no 4.

Subedi, T. N. (2005). Financial performance of NABIL Bank Limited. *AN Unpublished Master Degree Thesis*. Kathmandu: Tribhuvan Univercity.

Sunar, D. (2015). Credit Management of National Cooperative Bank Ltd. *An Unpublished Thesis*. Kathmandu: Tribhuvan University.

Thapa, K., & Rana, S. B. (2016). *Investment Management.* Kathmandu: Asmita books Publishers & Distributors (P) Ltd.

Tirfe, A. G. (2014). Financial Performance of Rural Saving and Credit Cooperatives in Tigray, Ethiopia. *Research Journal of Finance and Accounting, Vol.5, No.17*, 63-75.

*The National Cooperative Federation of Nepal (NCF/N)*. (2008). Retrieved from www.ncfnepal.com.np: http://ncfnepal.com.np/about%20NCF.html

Timalsena, H. (2073). SACCOS Risk Management under NEFSCUN. *SACCOS AAWAj*, 75-76.

# APPENDICES

## The "PEARLS" Monitoring System Manual.

**P=PROTECTION**

The indicators in this section measure the adequacy of the provisions for loan losses.

**P1. ALLOWANCE FOR LOAN LOSSES / DELINQUENCY > 12 MONTHS**

Purpose: To measure the adequacy of the provisions for loan losses when compared to all delinquent loans over 12 months.

Accounts:

a. Allowance for Loan Losses (Balance Sheet)

b. Loan Balances of all delinquent loans >12 months

Formula: $\frac{b}{a}$

Goal: **100%**

**P2. NET ALLOWANCE FOR LOAN LOSSES / TOTAL DELINQUENCY**

Purpose: To measure the adequacy of the provisions for loan losses after deducting all delinquent loans > 12 months.

Accounts:

a. Total Allowance for Loan Losses

b. Total Delinquent Loans >12 months

c. Total Balance of all Delinquent Loans outstanding from 1-12 months.

Formula: $\frac{(a-b)}{c}$

Goal: **35% of loans delinquent 1 - 12 months.**

**P3. TOTAL CHARGE-OFF OF DELINQUENT LOANS > 12 MONTHS**

Purpose: To measure the total charge-off of all delinquent loans > 12 months.

Account:

a. Total Delinquent Loans >12 months

Formula: If (a) = 0 (Zero) then Yes, else No.

Goal: **Charge-off 100% of all Loans Delinquent > 12 months**

**P4. QUARTERLY LOAN CHARGE-OFFS / TOTAL LOAN PORTFOLIO**

Purpose: To measure the amount of loans charged-off from the loan portfolio in the current year. Note that the loans charged-off should be maintained in an auxiliary ledger and are not found on the balance sheet.

Accounts:

a. Accumulated Charge-offs for Current year

b. Accumulated Charge-offs for previous year

c. Gross loan portfolio (excluding allowances) as of Current year-end

Formula: $$\frac{(a-b)}{\left(\frac{(c+d)}{2}\right)}$$

Goal: **Minimize**

**P5. ACCUMULATED RECOVERED CHARGE-OFFS / ACCUMULATED CHARGE-OFFS**

Purpose: To measure the accumulated amount of charge-offs that have been recovered through successful collection efforts. This is a historical figure that includes all previous years.

Accounts:

a. Accumulated Recovery of Charge-offs

b. Accumulated Charge-offs

Formula: $$\frac{a}{b}$$

Goal: **100%**

**P6. SOLVENCY**

Purpose: Measure the degree of protection that the credit union has for member savings and shares in the event of liquidation of the credit union's assets and liabilities.

Accounts:

a. Total Assets

b. Allowances for Risk Assets

c. Balance of Loans Delinquent greater than 12 months.

d. Balance of Loans Delinquent from 1 to 12 months.

e. Total Liabilities

f. Problem Assets (Losses that will be liquidated)

g. Total Savings

h. Total Shares

Formula: $$\frac{[(a+b)-(c+.35(d)+e+f-g)]}{(g+h)}$$

Goal: **111%**

**II. E= EFFECTIVE FINANCIAL STRUCTURE**

The indicators in this section measure the composition of the most important accounts on the Balance Sheet. An effective financial structure is necessary to achieve safety, soundness, and profitability, while at the same time, positioning the credit union for aggressive real growth.

**EARNING ASSETS**

**E1. NET LOANS / TOTAL ASSETS**

Purpose: To measure the percentage of total assets invested in the loan portfolio.

Accounts:

a. Total Gross Loan Portfolio Outstanding

b. Total Allowance for loan losses

c. Total Assets

Formula: $$\frac{(a-b)}{c}$$

Goal: **Between 70 - 80%**

**E2. LIQUID INVESTMENTS / TOTAL ASSETS**

Purpose: To measure the percentage of total assets invested in Short-term Investments.

Accounts:

a. Total Liquid Investments

b. Total Assets

Formula: $$\frac{a}{b}$$

Goal: **Maximum 20%**

**E3. FINANCIAL INVESTMENTS / TOTAL ASSETS**

Purpose: To measure the percentage of total assets invested in Long-term investments

Accounts: a. Total Financial Investments

b. Total Assets

Formula: $$\frac{a}{b}$$

Goal: **Maximum 10%**

**E4. NON-FINANCIAL INVESTMENTS / TOTAL ASSETS**

Purpose: To measure the percentage of total assets invested in non-financial investments (i.e., supermarkets, pharmacies, residential housing developments etc.).

Accounts:

a. Total Non-Financial Investments

b. Total Assets

Formula: $\frac{a}{b}$

Goal: **0%**

**LIABILITIES**

**E5. SAVINGS DEPOSITS / TOTAL ASSETS**

Purpose: To measure the percentage of total assets financed by savings deposits.

Accounts:

a. Total Savings Deposits

b. Total Assets

Formula: $\frac{a}{b}$

Goal: **Between 70 - 80%**

**E6. BORROWED FUNDS / TOTAL ASSETS**

Purpose: To measure the percentage of total assets financed by external borrowing (i.e., debt obligations with other financial institutions outside of the credit union)

Accounts:

a. Total Short-term loan obligations

b. Total Long-term loan obligations

c. Total Assets

Formula: $\frac{a+b}{c}$

Goal: **Maximum 5%**

**CAPITAL**

**E7. MEMBER SHARES / TOTAL ASSETS**

Purpose: To measure the percentage of total assets financed by Member shares.

Accounts:

a. Total Member Shares

b. Total Assets

Formula: $\frac{a}{b}$

Goal: **Maximum 20%**

**E8. INSTITUTIONAL CAPITAL1 / TOTAL ASSETS**

Purpose: To measure the percentage of total assets financed by Institutional Capital.

Accounts: a. Total Institutional Capital

b. Total Assets

Formula: $\frac{a}{b}$

Goal: **Minimum 10%**

**E9. NET CAPITAL**

Purpose: To measure the real level of institutional capital, after adjusting the allowances for risk assets to meet the standards of P1&P2, and covering any other potential losses.

Accounts:

a. Institutional Capital

b. Allowances for Risk Assets

c. Balance of Loans Delinquent greater than 12 months.

d. Balance of Loans Delinquent from 1 to 12 months.

e. Problem Assets (Losses that will be liquidated)

f. Total Assets

Formula: $\frac{[(a+b)-(c+.35(d)+e)]}{f}$

Goal: Same as E8

**III. A=ASSET QUALITY**

The indicators in this section measure the percentage of non-earning assets that negatively impact profitability and solvency. They are: loan delinquency, non-earning assets, and the financing of nonearning assets.

**A1. TOTAL LOAN DELINQUENCY / TOTAL LOAN PORTFOLIO**

Purpose: To measure the total percentage of delinquency in the loan portfolio, using the criterion of outstanding delinquent loan balances instead of accumulated delinquent loan payments.

Accounts:

a. Sum of all delinquent loan balances (a non-bookkeeping control)

b. Total (Gross) Loan Portfolio Outstanding

Formula: $\frac{a}{b}$

Goal: **Less Than or Equal to 5%**

**A2. NON-EARNING ASSETS / TOTAL ASSETS**

Purpose: To measure the percentage of the total assets not producing income.

Examples of Non-earning Assets:

1. Cash on hand
2. Non-interest bearing monetary checking accounts
3. Accounts receivable
4. Assets in liquidation
5. Fixed assets (Land, Building, equipment etc.)
6. Prepaid expenses and other deferrals

Accounts:

a. Total Non-earning Assets

b. Total Assets

Formula: $\frac{a}{b}$

Goal: **Less Than or Equal to 5%**

**A3. (NET INSTITUTIONAL CAPITAL +TRANSITORY CAPITAL + NON INTEREST-BEARING LIABILITIES) / NON-EARNING ASSETS**

Purpose: To measure the percentage of non-earning assets that are financed with institutional capital, transitory capital and liabilities without interest.

Accounts:

a. Total Net Institutional Capital (See numerator for P7 ratio)

b. Total Transitory Capital

c. Total Non-Interest-Bearing Liabilities

d. Total Non-earning assets

Formula: $\frac{(a+b+c)}{d}$

Goal: **Greater than or equal to 100%**

**IV. R=RATES OF RETURN & COST**

These indicators measure the average income yield for each of the most productive assets of the Balance Sheet. In addition, they measure the average yield (cost) for each of the most important liability and capital accounts. The yields are actual investment returns and not the typical "spread analysis" yields that are figured on the basis of average assets. The corresponding yields indicate whether the credit union is earning and paying market rates on its assets, liabilities and capital.

**R1. TOTAL LOAN INCOME / AVERAGE NET LOAN PORTFOLIO**

Purpose: To measure the yield on the loan portfolio.

Accounts:

a. Total Loan income (including commissions, fees, and delinquent interest penalties) during year.

b. Insurance Premiums paid on Loans

c. Net loan portfolio (Net of Allowances for Loan Losses) as of Current year-end

d. Net loan portfolio (Net of Allowances for Loan Losses) as of Last year-end

Formula: $\frac{(a-b)}{\left(\frac{c+d}{2}\right)}$

Goal: **Entrepreneurial rate which covers financial, operating, and provisioning expenses and contributes to capital levels which maintain *INSTITUTIONAL CAPITAL* at least 10%.**

**R2. LIQUID INVESTMENT INCOME / AVERAGE LIQUID INVESTMENTS**

Purpose: To measure the yield on all short-term investments (i.e., Bank deposits, etc.).

Accounts:

a. Total Liquid Investment Income during year.

b. Total Liquid Investments as of Current year-end.

c. Total Liquid Investments as of Last year-end.

Formula: $\frac{a}{\left(\frac{b+c}{2}\right)}$

Goal: **Highest rates possible w/o undue risk**

**R3. FINANCIAL INVESTMENT INCOME / AVERAGE FINANCIAL INVESTMENTS**

Purpose: To measure the yield on all long term investments (i.e., Fixed Deposits, Shares, Securities, etc.)

Accounts:

a. Total Financial Investment Income

b. Total Financial Investments as of Current year-end.

c. Total Financial Investments as of Last year-end.

Formula: $\frac{\text{a}}{\left(\frac{b+c}{2}\right)}$

Goal: **Highest rates possible w/o undue risk**

**R4. NON-FINANCIAL INVESTMENT INCOME / AVERAGE NON-FINANCIAL INVESTMENTS**

Purpose: To measure the yield on all non-financial investments which do not belong to categories R1-R3. Typically, this is income from supermarkets, pharmacies, rental properties and residential housing developments.

Accounts:

a. Total Non-Financial Investment Income

b. Total Non-Financial Investments as of Current year-end.

c. Total Non-Financial Investments as of Last year-end.

Formula: $\frac{\text{a}}{\left(\frac{b+c}{2}\right)}$

Goal: **Rate greater than R1**

**R5. FINANCIAL COST: SAVINGS DEPOSITS / AVERAGE SAVINGS DEPOSITS**

Purpose: To measure the yield (cost) of Savings Deposits.

Accounts:

a. Total Interest Paid on Savings Deposits

b. Total insurance premium paid on Savings Deposits

c. Total Taxes paid by Credit Union on Savings Deposit Interest

d. Total Savings Deposits as of Current year-end.

e. Total Savings Deposits as of Last year-end.

Formula: $\frac{(\text{a+b+c})}{\left(\frac{d+e}{2}\right)}$

Goal: **Rates which protect the nominal value of the savings deposits (>Inflation)**

**R6. FINANCIAL COST: BORROWED FUNDS / AVERAGE BORROWED FUNDS**

Purpose: To measure the yield (cost) of all Borrowed Funds

Accounts:

a. Total Interest Paid on Borrowed Funds

b. Total Borrowed Funds as of Current year-end

c. Total Borrowed Funds as of Last year-end

Formula: $\frac{a}{\left(\frac{b+c}{2}\right)}$

Goal: **Same or lesser yield (cost) than R5**

**R7. FINANCIAL COST: MEMBER SHARES / AVERAGE MEMBER SHARES**

Purpose: To measure the yield (cost) of Member Shares.

Accounts:

a. Total Dividends paid on Member Shares

b. Total insurance premium paid on Member Shares

c. Total Taxes paid by credit union on Dividends on Shares

d. Total Member Shares as of Current year-end

e. Total Member Shares as of Last year-end

Formula: $\frac{(a+b+c)}{\left(\frac{d+e}{2}\right)}$

Goal: **Same or greater yield than R5**

**R8. GROSS MARGIN / AVERAGE TOTAL ASSETS**

Purpose: To measure the gross income margin generated, expressed as a yield on all assets, before subtracting operating expenses, provisions for loan losses, and other extraordinary items.

Accounts:

a. Loan Interest Income

b. Liquid Investment Income

c. Financial Investment Income

d. Non-Financial Investment Income

e. Other Income

f. Interest Cost of Savings Deposits

g. Dividend or Interest Cost of Member Shares

h. Interest Cost of Borrowed Funds

I. Total Assets as of Current Year-end

j. Total Assets as of Last Year-end

Formula: $\frac{(a+b+c+d+e)-(f+g+h)}{\left(\frac{i+j}{2}\right)}$

Goal: **To generate sufficient income to cover all operating expenses and allowances for loan losses and provide for adequate increases in institutional capital.**

**R9. OPERATING EXPENSES / AVERAGE TOTAL ASSETS**

Purpose: To measure the cost associated with the management of all Credit Union assets. This cost is measured as a percentage of total assets and indicates the degree of operational efficiency or inefficiency.

Accounts:

a. Total Operating Expenses (exclusive of Provisions for loan losses)

b. Total Assets as of Current year-end

c. Total Assets as of Last year-end

Formula: $\frac{a}{\left(\frac{b+c}{2}\right)}$

Goal: **<10%**

**R10. PROVISIONS FOR LOAN LOSSES / AVERAGE TOTAL ASSETS**

Purpose: To measure the cost of losses from risk assets such as delinquent loans or uncollectible accounts receivable. This cost is different than other operational expenses and should be separated to highlight the effectiveness of Credit Union collection policies and procedures.

Accounts:

a. Total Current Year Provision Expense of all Risk Assets

b. Total Assets as of Current year-end

c. Total Assets as of Last year-end

Formula: $\frac{a}{\left(\frac{b+c}{2}\right)}$

Goal: **Enough to cover 100% of delinquent loans >12 months and 35% for loans delinquent 1-12 months.**

**R11. NON-RECURRING INCOME OR EXPENSES / AVERAGE TOTAL ASSETS**

Purpose: To measure the net amount of non-recurring income and expenses. These items typically should not be a significant amount if the Credit Union is specializing in Financial Intermediation.

Accounts:

a. Total Non-Recurring Income or Expenses (Current Year)

b. Total Assets as of Current year-end

c. Total Assets as of Last year-end

Formula: $\frac{a}{\left(\frac{b+c}{2}\right)}$

Goal: **Minimum possible**

**R12. NET INCOME / AVERAGE TOTAL ASSETS**

Purpose: To measure the adequacy of earnings and also, the capacity to build Institutional Capital.

Accounts:

a. Net Income (After dividends)

b. Total assets as of Current year-end

c. Total assets as of Last year-end

Formula: $\frac{a}{\left(\frac{b+c}{2}\right)}$

Goal: **>1% and enough to attain the goal of E8**

**L=LIQUIDITY**

The liquidity indicators show whether the Credit Union is effectively managing its cash so that it can meet deposit withdrawal requests and liquidity reserve requirements. In addition, idle cash is also measured to insure that this non-earning asset does not unduly affect profitability.

**L1. LIQUID INVESTMENTS (+) LIQUID ASSETS (-) SHORT-TERM PAYABLES / SAVINGS DEPOSITS**

Purpose: To measure the adequacy of the liquid cash reserves to satisfy deposit withdrawal requests, after paying all immediate obligations <30 days.

Accounts:

a. Total Earning Liquid Investments

b. Total Non-earning Liquid Assets

c. Total Short-term Payables <30 days

d. Total Savings Deposits

Formula: $\frac{(a+b+c)}{d}$

Goal: **Minimum 15%**

**L2. LIQUIDITY RESERVES / SAVINGS DEPOSITS**

Purpose: To measure compliance with obligatory Central Bank, CFF, or Other Liquidity Reserve

Deposit requirements.

Accounts:

a. Total Liquidity Reserves (Earning Asset)

b. Total Liquidity Reserves (Non-earning Asset)

c. Total Savings Deposits

Formula: $\frac{(a+b)}{c}$

Goal: **10%**

**L3. NON-EARNING LIQUID ASSETS / TOTAL ASSETS**

Purpose: To measure the percentage of total assets that are invested in non-earning liquid accounts.

Accounts: $\left(\frac{a}{b}\right) - 1 \times 100$

a. Total Liquid Non-Earning Assets

b. Total Assets

Formula: $\frac{a}{b}$

Goal: <**1%**

**S=SIGNS OF GROWTH**

The indicators of this section measure the percentage of growth in each of the most important accounts on the financial statement, as well as growth in membership. In inflationary economies, real growth (after subtracting inflation), is a key to the long run viability of the Credit Union

**S1. GROWTH IN LOANS**

Purpose: To measure the year-to-date growth of the Loan Portfolio.

Accounts:

a. Current Loan Portfolio balance

b. Loan Portfolio balance as of Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Total Loans Outstanding (E1) S1 must be greater than S11**

**To Maintain the Percentage of Total Loans Outstanding (E1), S1 must be equal to S11.**

**To Decrease the Percentage of Total Loans Outstanding (E1), S1 must be less than S11.**

**S2. GROWTH IN LIQUID INVESTMENTS**

Purpose: To measure the year-to-date growth of liquid investments.

Accounts:

a. Total Current Liquid Investments

b. Total Liquid Investments as of Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Liquid Investments (E2), S2 must be greater than S11.**

**To Maintain the Percentage of Liquid Investments (E2), S2 must be equal to S11.**

**To Decrease the Percentage of Liquid Investments (E2), S2 must be less than S11.**

### S3. GROWTH IN FINANCIAL INVESTMENTS

Purpose: To measure the year-to-date growth of Financial Investments.

Accounts: a. Total Current Financial Investments

b. Total Financial Investments as of Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Financial Investments (E3), S3 must be greater than S11.**

**To Maintain the Percentage of Financial Investments (E3), S3 must be equal to S11.**

**To Decrease the Percentage of Financial Investments (E3), S3 must be less than S11.**

### S4. GROWTH IN NON-FINANCIAL INVESTMENTS

Purpose: To measure the year-to-date growth of the Loan Portfolio.

Accounts: a. Total Current Non-financial Investments

b. Total Non-financial Investments as of Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Non-Financial Investments (E4), S4 must be greater than S11.**

**To Maintain the Percentage of Non-Financial Investments (E4), S4 must be equal to S11.**

**To Decrease the Percentage of Non-Financial Investments (E4), S4 must be less than S11.**

### S5. GROWTH IN SAVINGS DEPOSITS

Purpose: To measure the year-to-date growth of Savings Deposits.

Accounts:

a. Total Current Savings Deposits

b. Total Savings Deposits as of the Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Total Savings Deposits (E5), S5 must be greater than S11.**

**To Maintain the Percentage of Total Savings Deposits (E5), S5 must be equal to S11.**

**To Decrease the Percentage of Total Savings Deposits (E5), S5 must be less than S11.**

**S6. GROWTH IN BORROWED FUNDS**

Purpose: To measure the year-to-date growth of Borrowed Funds.

Accounts:

a. Total Current Borrowed Funds

b. Total Borrowed Funds as of Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Total Borrowed Funds (E6), S6 must be greater than S11.**

**To Maintain the Percentage of Total Borrowed Funds (E6), S6 must be equal to S11.**

**To Decrease the Percentage of Total Borrowed Funds (E6), S6 must be less than S11.**

**S7. GROWTH IN MEMBER SHARES**

Purpose: To measure the year-to-date growth of Member shares.

Accounts:

a. Total Current Member Shares

b. Total Member Shares as of Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Total Member Shares (E7), S7 must be greater than S11.**

**To Maintain the Percentage of Total Member Shares (E7), S7 must be equal to S11.**

**To Decrease the Percentage of Total Member Shares (E7), S7 must be less than S11.**

**S8. GROWTH IN INSTITUTIONAL CAPITAL**

Purpose: To measure the year-to-date growth of Institutional Capital.

Accounts:

a. Current Institutional Capital

b. Institutional Capital as of the Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Total Institutional Capital (E8), S8 must be greater than S11.**

**To Maintain the Percentage of Total Institutional Capital (E8), S8 must be equal to S11.**

**To Decrease the Percentage of Total Institutional Capital (E8), S8 must be less than S11.**

### S9. GROWTH IN NET INSTITUTIONAL CAPITAL

Purpose: To measure the year-to-date growth of Net Institutional Capital.

Accounts:

a. Current Net Institutional Capital (the definition of NIC as in E9)

b. Net Institutional Capital as of the Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal:

**To Increase the Percentage of Net Institutional Capital (E9), S9 must be greater than S11.**

**To Maintain the Percentage of Net Institutional Capital (E9), S9 must be equal to S11.**

**To Decrease the Percentage of Net Institutional Capital (E9), S9 must be less than S11.**

### S10. GROWTH IN MEMBERSHIP

Purpose: To measure the year-to-date growth in Membership of the Credit Union.

Accounts:

a. Current Number of Members (non-bookkeeping control)

b. Number of Members as of Last year-end (non-bookkeeping control)

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal: **>15%**

### S11. GROWTH IN TOTAL ASSETS

Purpose: To measure the year-to-date growth of Total Assets.

Accounts: a. Total current assets

b. Total assets as of the Last year-end

Formula: $\left(\frac{a}{b}\right) - 1 \times 100$

Goal: **Greater than the inflation rate + 10%**

# PEARLS ANALYSIS OF SAVING AND CREDIT COOPERATIVES OF BARDIYA

**(A Comparative Study of Biswashilo, Pragati, Srijana Saving and Credit Cooperatives Ltd.)**

## A Thesis Proposal


**By:**

**BISHNU PRASAD UPADHYAY**

**Central Department of Management**

**T.U. Regd. No: 7-2-325-268-2006**

**Campus Roll No: 129/015**

**Exam Roll No: 409/015**


*Submitted in partial Fulfillment of the Requirement of Degree of*

**Masters of Business Studies (MBS)**

in the

## Faculty of Management

### Tribhuvan University

Kritupur, Kathmandu

July 2017

# 1. Background of the Study

Cooperative was founded from Latin word "co-operari" where 'co' means together and 'operari' means working together. Working together for member is the initial concept of cooperatives. The Cooperative is a member centered business. In 1995, the International Co-operative Alliance (ICA), the apex organization that represents cooperatives worldwide, defined cooperative as: "An autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. Cooperatives are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. In the tradition of their founders, cooperative members believe in the ethical values of honesty, openness, social responsibility, and caring for others."

Cooperative is inherent in human society. Cooperation is a give and take process to each other and it is an essential ingredient of a cooperative. The motto of cooperative is "each for all and all for each". The term "cooperative" means the act of working together for a common purpose.

In Nepal cooperative have long cultural history of the cooperative in informal group, like as popularly known as dhukuti, and grain savings and labor savings systems known as parma and dharma bhakari. Similarly, Guthi provided a forum to work together for smoothly running different socio cultural practices. Many of these traditional systems of cooperation are still functioning in the rural areas of Nepal. Government also supports to like this informal group like Guthi. (NEFSCUN, 2017)

Formally, the first Co-operative Act was enacted by the government in 1960, which was followed by the Agricultural Co-operative Act (Sajha Sahakari). In 1963, the capital of savings and credit cooperative societies was converted into a Cooperative Bank in 1963, and in 1968 it was also converted into the Agricultural Development Bank of Nepal (ADBN). After 5 years the ADBN returned management back to the government and in 1975 the Cooperative Act was amended again. Beginning in the 1980s a new generation of community based savings and credit groups began to emerge in Nepal. The Cooperative Act was amended for the third time to give the Government more control. By this time the Savings and Credit movement had spread throughout the country and the need for an apex coordinating body was evident. (NEFSCUN, 2017)

In Nepal, 32,663 cooperative actively in overall Nepal at the end of June 2015, here 453,630.34(Million) amount transaction are made which is 21% contribute to economic support. Where credit given to member is 188,078.44 Million and deposit are collect to member 202,420.54M and share capital use of cooperative are 63,131.38M. (MOCPA, Statistics of Cooperative, 2015)

Credit management is the process of controlling and collecting payments from customers. A good credit management system will help an entity reduce the amount of capital tied up with debtors and minimize an entity's exposure to bad debts. Credit management therefore refers to all activities that an organization is engaged in when dealing with issuance of service, recording of the transaction, analyzing and collecting payments for services rendered to debtors or customers. (Mukherjee, 2014) Organization cannot arbitrarily leave the above functions without any controlling policy. Extending services to customers for payment to be received in future leads to the recognition of such owing as debtors or accounts receivables in the organization. Managing accounts receivables is important for any firm because it is directly linked to the sales. (Fujo & Ali, 2016)

In conclusion Nepal is rural, landlocked country so here more problem in development of country so here is problem to such as finance area is also difficulty to establish in rural and also in hills place. All people engage in finance sector cooperative helps to involved in rural place.

## 2. Statement of the problem

Cooperative has facing several problem and challenge which is arising due to internal as well as external environment factor. Such as, economic environment, socio-cultural environment, political environment, legal and government environment, technological environment. However financial institution are increasing rapidly, they are collect deposit for lending the deposit to customer. Lack of proper knowledge and small monetary fund cooperative has facing credit risk in Nepal. Cooperative member have not appropriate knowledge about the cooperative education, borrowing repayment so they can't pay of interest and principle amount of borrowing.

Due to poor credit administration, the ineffective and nonperforming credit increasing highly. Thus the research proposed it would be study following research questions examined.

7. What is the protection of money policy in Nepalese cooperative?
8. What is the effective financial structure follow by Nepalese cooperatives?
9. What is the minimum required of quality of assets?
10. What are the relationship between the deposit, loan, investment, expenses and profitability?
11. What is the liquidity position of cooperatives?
12. What is the growth rate of cooperatives?

## 3. Propose of the Study

The main objective of the study is examining the credit risk management of cooperative. The specific objectives are as follows;

7. To study of protection of money policy follow by Nepalese cooperatives.
8. To study of financial structure of Nepalese Cooperative.
9. To study of minimum quality of assets.
10. To examine relationship of deposit, lending, borrowing, other cost and its impact in profit.
11. To examine of liquidity position of cooperatives.
12. To study of entire growth rate of cooperatives.

## 13. Signification of the Study

Cooperatives scan play meaningful role in resource mobilization and socioeconomic development of poor and underprivileged people. Up to June 2015, there are altogether 32,663 cooperative societies in the country. Out of them 13,460 are saving and credit, 4,031 are multipurpose, and others are different subject wise cooperatives (MOCPA, Statistics of Cooperative, 2015). Most of the multipurpose cooperative are also involved in saving and credit activities along with their members. Hence out of total cooperative societies around 54 % cooperative (including multipurpose cooperative societies) are involved in saving and credit business with their members.

According to the department of cooperatives, up to mid July 2015, cooperative sector collect the deposit from its members 202,420.54 million rupees and provide loan to the member 188,078.44 million rupees. The cooperative sector is providing more than 21 % of total banking services. Since mushrooming growth of cooperatives number and the volume of transactions are increasing than its risk factors also increasing.

There are so many research works on cooperative sector. But a comprehensive research on credit risk management practices in cooperatives from both quantitative and qualitative aspects have not enough and some studies are small scale studies. This study aims to analyze the overall credit risk scenario and credit risk management practice in Nepalese cooperative. Cooperatives are mainly related to financial activities. Risk is inherent in financial sectors. Therefore saving and credit cooperatives cannot afford to be risk avoiders. The risk return relationship has to be optimally balanced for welfare enhancing outcomes. Saving and credit cooperatives are aggressively extend to their business in different fields including real estate, trading, agriculture etc. Due to the downward business of real estate sector, its investment seems to be on high risk and should diversifying their investment and operations. (Paudel, 2012)

Effective risk management is the hallmark of successful cooperatives. In this proposed study I would attempt to examine and explore the various credit risk factors as well as current credit risk management practices and determine the suitable model for credit risk management in cooperatives in Nepal. Hence this study has the great significance in the present context.

## 14. Limitations of the Study

Every study has on its own limitations so it is also not independence on the study. This study only for the partial fulfillment of Master Degree in Business Studies (MBS), and it has limitation of some area such as a limitation of time, only taken to sample cooperatives only.

The proposed study has the following delimitation.

4. The cooperative should be established before five years ago and they lie within Bardiya district.
5. Responsible would be chairmen, board members, committee members and staff concerned sampled cooperatives.
6. This study based on secondary data so it is reliability of the study depends on Provide data of cooperatives
7. This study only studies of 5 years data of cooperatives.

## 15. Organization of Study

The present study is organized in such way that the stated objectives can easily be fulfilled. The study report has presented the systematic presentation and finding of the study. The study report is designed in five chapters which are as follows:

**Chapter 1 Introduction**

This chapter describes the basic concept and background of the study. It has served orientation for readers to know about the basic information of the research area, various problems of the study, objectives of the study and limitation and research gap of study.

**Chapter 2 Literature Review**

This chapter study about the research related literature and readers that they are familiar with important research that has been carried out in similar areas. It also establishes the study of link in a chain of research that is developing and emerging knowledge about concerned field.

**Chapter 3 Research Methodology**

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with objective in view. It describes about various data related study, various tools and techniques employed for presentation the data.

**Chapter 4 Results**

This chapter analysis of the data and results interpret. This chapter shows the result of the study and also finds out of new thing.

**Chapter 5 Conclusion**

On the basis of results this chapter helps to elaborate of the summary of the study, conclusion of the study and also researcher concluded about the performance of the concerned organization for better improvement.

## 16. Literature Review

In term of a literature review, “The literature” means the works you consulted in order to understand and investigate your research problem. Re-view (or look again) is a process of systematic, meticulous, and critical summary of the published literature in your field of research. How others have dealt with topic in your research subject and of what knowledge they have acquired? Literature review also indicate clearly and linkages with other studies in the field. A critical review of the literature helps you to develop a thorough understanding and insight into previous research works that related to your study. (Pant, 2012)

The review of literature is an essential part of all studies. It is way to discover what other researcher did in the area of credit management. A literature review is the process of locating, obtaining, reading and evaluating the research literature in the area of credit management of any bank, banking institution and also cooperative. It can help to develop some experience in this area. To see what new contribution can be made and to receive some idea for developing research design. (Sunar, 2015)

Credit risk defines as a business entity, financial objective of delivering services in a way that ensures the generation of income. To cover the cost of funds, other operational costs, and surplus for recapitalization purposes. Co-operative, they focus on social objectives, for instance, enable members to save their money and access credit easily and at a lower cost. They have to mobilize savings and to repackage the savings received to issue loans at a favorable price that benefits the members of the institution. Indeed, the second and third objectives are contradicting with the first which is focusing on sound financial stability. The reason is that the second and third objectives are likely to increase the adverse selection and moral hazards problems that, therefore, results in poor credit management. (Ndiege, Mataba, Msonganzila, & Nzilano, The link between financial performance and loan, 2016)

Also credit risk in cooperative defines as the provision of credit facilities is the core function of every savings and credit co-operative society. The credit management function facilitates efficient management and administration of the SACCO loans in order to ensure equitable distribution of funds and to encourage liquidity planning. In order to achieve prudence and accepted best practice, credit management should always be guided by clearly spelt out policies and procedures, strategic plan, by- laws , the co-operative act, the SACCO regulatory act and rules and regulations. Basically Savings and credit co-operative has three operational aspects namely; the savings, the credit and channeling external funds to members. (Kipngetich & Muturi, 2015)

Djan, Stephen, Bawuah, Halidu, & Kuuto, (2015) define the Risk as in financial services are larger in scope and scale than ever before. Along with revenue maximization and operational cost minimization, risk management has moved to center stage in defining superior performance. Differences in risk management philosophy and technique can produce prosperity, mediocrity, or failure. No senior management of today's financial institutions can perform its function without a vastly expanded understanding of the dimensions of risk and the various tools to manage it. Banks are in the business of risk. Many of these risks are of a traditional sort: credit risk, interest rate risk, and liquidity risk. However, numerous risks are more recent, such as regulatory risk, currency risk, and human resources risk. The past couple of decades have seen dramatic losses, in the global as well as local in the banking industry.

Credit risk defines as (Lagat, Mugo, & Otuya, 2013) increasing profitability is a priority for all managers in financial institutions. For SACCO's managers, credit risk management is equally very important. On the one hand SACCO's managers need to reduce the risk of loan default because the institutions financial viability is weakened by the loss of principal and interest, yet on the other hand SACCOS's operate under objectives of maximizing benefits to members which include the social role of providing loans to help members achieve their standard of living goals. This social roles conflict with financial viability of SACCOS if managers become less stringent in the lending practices to assess and monitor the credit risk of member borrowers. This calls for the need to conduct more research on credit risk management practices in SACCOS. The study is an attempt to close this gap by providing further insights and information on the effect of credit risk management practices on lending portfolios of SACCOS.

The risk defines as likelihood of losses resulting from events such as changes in market price and other variables. (Thapa & Rana, 2016) Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Banks should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization. (Paudel, 2012)

Cooperative concepts have ample prospects of contributing to poverty reduction, mutual growth, financial stability, and the overall development of an economy. Nepalese cooperative movement began with the objective of uplifting the socio economic status of the underprivileged rural people. Mainly, poor and illiterate people from rural areas become members in a cooperative society, and thereafter, they obtained access to capital markets with benefit sharing (Bharadwaj, 2012).

Mushrooming growth of cooperatives took place after the restoration of democracy in 1990. In 1992, a new cooperative act was enacted and the democratic government of

Nepal adopted liberal economic policies. At the end of fiscal year 2015/16, there were 5,100,370 members who collaborated in 32,663 cooperatives. (MOCPA, Statistics of Cooperative, 2015) Currently, some highly recognized businesses have also joined cooperatives, which have become a wonderful business model in urban areas. Although, performance of enterprising cooperatives has increased due to capital access, risk sharing, and community support, it has also increased caution for unethical issues such as adverse selection problems, a lack of transparency, the misuse of funds, and poor governance systems. Therefore, some large, reputable cooperatives have recently failed.

## 17. Research Methodology

### 17.1 Research design

This study will be based on exploratory and descriptive research design, accomplish with only secondary data. To achieve the specific objectives of the study descriptive and analytical research has been carried out in term of credit risk management of cooperative**.**

### 17.2 Population and Sample

The total 32336 cooperatives will be constituted as the population of the study and 3 saving and credit cooperatives as the sample for the purpose of research paper. So among the various cooperatives in Nepal, the intervening sample is Bardiya with Biwassilo Saving and Credit Cooperatives Ltd., Pragati Saving and Credit Cooperatives Ltd., Sirjana Saving and Credit Cooperatives Ltd. will be taken as sample for the study.

### 17.3 Sources of Data

This study will be based in secondary in nature because the study requires the information about the credit risk management of cooperatives which can be obtained through the annual report issued by cooperatives.

### 17.4 Data Collection and processing procedure

The collected data will be presented in tabulated form with various heads and statistical analysis will be carried out to enlighten the study.

### 17.5 Data analysis tools and techniques

For the analysis of the research study, the following financial and statistical tools will be used.

1. Financial ratios

2. Assets management ratios
3. Profitability ratios
4. Lending efficiency ratios

## 18. Chapter plan

**Research Work Schedule**

| S.N. | Particulars | Month | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | July 3 | July 20 | July 30 | Aug . 10 | Aug . 20 | Oct. 29 | Nov . 1 | Nov . 8 |
| 1. | Proposal writing and submission | √ | | | | | | | |
| 2. | Approval of proposal | | √ | | | | | | |
| 3. | Thesis writing | | √ | √ | √ | √ | √ | √ | √ |
| 4. | Introduction | | | √ | | | | | |
| 5. | Literature review | | | √ | | | | | |
| 6. | Research methodology | | | √ | | | | | |
| 7. | Collecting data | | | | √ | | | | |
| 8. | Analyzing data | | | | √ | √ | | | |
| 9. | Analysis and interpretation | | | | √ | √ | | | |
| 10. | Conclusion and recommendation | | | | √ | √ | | | |
| 11. | Submission of thesis | | | | | | √ | | |
| 12. | Defending of thesis | | | | | | | √ | |
| 13. | Thesis approval | | | | | | | | √ |

## REFRENCES


Bharadwaj, B. (2012). "Roles of Cooperatives in Poverty Reduction: A Case of Nepal". *Administration and Management Review, Vol. 24, No. 1, January, 2012*, p.120-139.

Djan, G. O., Stephen, F., Bawuah, J., Halidu, O. B., & Kuuto, P. K. (2015). Credit Risk Management and Its Impact on Financial Performance of Listed Banks in Ghana. *International Journal of Financial Markets, Vol. 2, No. 2, 2015*, p.24-32.

Fujo, K. G., & Ali, A. I. (2016). Factors Affecting Financial Performance of Savings and Credit. *The International Journal of Business Managemtent, Kenya*, p.7.

International Cooperative Alliance (ICA). (1995). *The Statement of Cooperative Identity*. Geneva: ICA.

Kipngetich , S., & Muturi, W. (2015). Effect of Credit risk Management on Financial Performance of Savings and Credit Cooperative Society in Kenya. *The Strategic Journal of Business and Change Management, Vol. 2 (44), May 21, 2015*, p. 900-915.

Lagat, F. K., Mugo, R., & Otuya, R. (2013). Effect of Credit Risk Management Practices on Lending Portfolio Among Savings and Credit Cooperatives in Kenya. *European Journal of Business and Management, Vol.5, No.19*, p. 93-105.

MOCPA. (2015). *Statistics of Cooperative.* Kathmandu: Ministry of Cooperative and Poverty Alleviation.

Mukherjee, D. (2014, February). *Credit Management, Risk analysis & Decision making* (8th ed ed.). (A. I. Kennedy Garama Fujo, Ed.) Snow White Publications Pvt ltd.

Ndiege, B. O., Mataba, L., Msonganzila, M., & Nzilano, K. L. (2016, February). The link between financial performance and loan. *African Journal of Business Management, Vol. 10(4), p. 89-97*, 89-97.

NEFSCUN. (2017). *Introduction of Cooperative*. Retrieved from http://nefscun.org.np.

Pant, P. R. (2012). *Social Science Research and Thesis Writing* (Sixth Edition ed.). Kathmandu: Buddha Publication.

Paudel, G. P. (2012). Credit Risk Management in Nepalese coopreratives. *An Unpublished PhD Thesis proposal*. Pacheri Bari-jhunjhunu, India: Singhania University.

Sunar, D. (2015). Credit Management of National Cooperative Bank Ltd. *An Unpublished Thesis*. Kathmandu: Tribhuvan University.

Thapa, K., & Rana, S. B. (2016). *Investment Management.* Kathmandu: Asmita books Publishers & Distributors (P) Ltd