CHAPTER ONE

INTRODUCTION

1.1 Background of Study:

A cooperative is an autonomous association of people united voluntary to meet their common economic, social and culture needs and aspiration through a jointly owned and democratically controlled enterprises. It is a business owned and controlled equally by the people who use its service or who work at it.

Although cooperative as a form of individual and societal behavior is intrinsic to human organization, the history of modern cooperative forms of organization dates back to Agriculture and Industrial Revolution of the 18th and 19th centuries. The first cooperative is under some dispute, but there were various milestones. However, the Rochdale Society of Equitable Pioneers, founded in 1844, is usually considered the first successful cooperative enterprises. A group of 28 weavers in Rochdale, England set up the society to open their own store selling food items.

Cooperative in Nepal has been started from the remote past. We had the use of Dharmabhakari and Dhikuri especially in the Thakalis, Mang in Newar communities, Parmo among the farmers in the villages, Guthi in the social-cultural practices and so on. In 1953 (2010 B.S.) the cooperative department was first established for the promotion of cooperatives, which started organized cooperative movement in Nepal. In 1956 (2013 B.S.) formally organized cooperative were established in Chitwan district by issuing executive order by the government. After the cooperative Act 2048 B.S. many cooperatives have been established in Nepal.

Recently there are 10230 primary cooperatives in different sector having 72 subject specific district level cooperative, 49 district cooperative unions, 5 central cooperative unions and 1 national cooperative bank. The National

Cooperative Federation is the apex level representative body of all the cooperatives at the national level. Among the 5 central level cooperative unions, there is one each for dairy, coffee, fruits and vegetables, consumers and saving and credit.

1.2 Focus of Study:

In the least developing countries like Nepal, cooperative organization plays an important role. The Nepalese economy is rural based. Most of the people are settled in rural areas. Large scale participation of rural people in cooperative activities provides an important potential for income generation and equity in rural areas. The entrepreneurial skills of rural cooperatives' member needs to be developed in order to transform their cooperatives into successful market oriented small scale rural enterprises involved in production, processing and other value-added activities with reliable chain of demand and supply mechanism. So, cooperative could be effective instrument to uplift the economy.

The study of portfolio analysis of the cooperative organization occupies an important role. An investor's objective is to make maximum return from his/her fund investing at the lower risk. By investing in single assets, investor may achieve his/her desire return but there will be much more risk. So it will be beneficiary to invest in the different assets than in single assets. Portfolio analysis considers the determination of future risks and returns in holding various blends of securities. Hence the study is concerned with analysis of portfolio.

1.3 Statement of Problem:

In today's context, cooperative has been emerging as mushroom. Recently more than 10,000 cooperatives are working in Nepal. Among them 2500 are multipurpose cooperative. As per the government report, the income and saving of the people is being lower than before whereas the competition has been much more. Per capital earning of the average Nepalese is $250 only. But still we find

emergence of the local saving in the form of cooperative and others. They are able to make their investment in various sectors for their sustainability.

However, only limited cooperative has success. The amounts of deposits of most of the cooperative are low. And the investments of such cooperative are also small. Few investments have been made on different cooperative banks and others. So the study tries to find out the answer of following questions:

- What is the portfolio state of the cooperative?
- Are the investment made safe to make the cooperative sustain?
- Where the investment has been made?
- What is the performance of the cooperative?

1.4 Objective of the study:

Despite the diminishing economy, more cooperative organization has been established. So the study is conducted to know the saving and deposit and their investment pattern. As per the above stated problems the followings are the objective of the study.

- To examine the portfolio state of the cooperatives.
- To find out the investment pattern of the cooperatives.
- To analyze the risk and return of the investment.
- To examine the performance of the cooperatives.
- To make comparison of the investment of selected cooperatives.

1.5 Limitation of the study:

The limitations of the study are as follows.

- The study is mainly based on portfolio analysis of the cooperative only.
- The study covers only selected number of multipurpose and saving and credit cooperative.
- Only 5 yrs data have been taken for the analysis.
- The research is based on information provided by the organization.

1.6 Statement of Hypothesis:

The hypothesis of this proposal is as follows:

Null Hypothesis: The investments made by the cooperative are safe.

Alternative Hypothesis: The investments made by the cooperative are not safe.

1.7 Research Methodology:

It deals with the methodology that is used to obtain the answer the objectives of the study. It includes research design, source of information and analytical procedure used in this study.

1.7.1 Research Design:

Research design refers to the plan and strategy that helps to get the answer to the above research objectives. It provides the methods and procedure for acquiring the needed information. It serves as a framework for the study, guiding the collection and analysis of the data, the research instruments to be utilized, and the sampling plans to be followed.

The study is made to analyze the risk and return of the cooperative for the investment. So, the research design is primarily related to plans and methods related to acquire the information on the risk and return on investing in the cooperative sector.

1.7.2 Source of Information:

The study is mainly based on secondary data. The major source is the annual publication report of the multipurpose cooperative and saving and credit cooperative. Another source is the official website of government i.e. www.deoc.gov.np. Besides this, the other sources of data are secondary data published by government and non-government organization.

1.7.3 Analytical Procedure:

Analytical procedure helps to find out the target objectives. It refers to the procedure of using the analytical statistical tools. There are not any specific tools that can be used to find out the desired outcome. For the study following tools will be used

- Charts: Different types of chart such as pie chart, bar diagram, etc.
- Ratio Analysis: Different types of analysis are done as per requirement of study.
- Other appropriate tools: For the analysis of the risk and return of the investment made by cooperative PEARLS System has been used. A brief description of the PEARLS system and some of the key ratios are
- ***P – Protection:*** It refers to the adequate protection of assets. Protection is measured by comparing the adequacy of the provision for loan losses against the amount of delinquent loans.
- ***E – Effective financial structure:*** It determines growth potential, earnings capacity, and overall financial strength. Ratios measure assets, liabilities, and capital, and their associative targets constitute an ideal structure for credit unions.
- ***A – Asset quality:*** It measures the impact of assets that do not generate income.
- ***R – Rate of return and cost:*** It disaggregates the essential components of net earnings (by investment) to help management calculate investment yields and evaluate operating expenses. The results more clearly indicate weather the credit unions is earning or paying market rate on its assets liabilities and capital.

- ***L – Liquidity:*** It reveals if the credit union is administrating its cash to meet deposit withdrawal requests and liquidity reserve requirements, while minimizing the amount of ideal funds.

- ***S – Sign of growth:*** It measures both financial and Membership growth. By comparing assets growth to other key areas, it is possible to detect change in the balance sheet structure that could have a positive or negative impact on earnings. Growth of institutional capital is the best indicator of profitability and success, particularly if it is proportionately greater than the growth in assets.

1.8 Scheme of the study:

The study will have 5 chapters as follows:

- ✓ Introduction
- ✓ Review of Literature
- ✓ Research Methodology
- ✓ Data Presentation and Analysis
- ✓ Summary, Conclusion and Recommendation

CHAPTER TWO

REVIEW OF LITERATURE

This chapter consist the conceptual framework and research review and relevant theories for the analysis of the study. The former section revealed the relevant aspects of the study and later one deal with research article in the related topics published in different national and international journals and review of dissertations studies by different authors.

2.1 Conceptual Review

This section comprises of general concept of MFI, concept of cooperative and its principle, historical background of Cooperative and its development in Nepal, organizational structure of cooperative and its existing situation, types of cooperative society, concept of performance analysis, description of multi-cooperative and saving and credit cooperative and theoretical prescription of PEARLS. Review of research article includes the application of PEARLS tools to analyze the performance by different institutions in international scenario and the review of dissertation.

2.1.1 Concept of Micro-finance

Micro-finance plays a significant role in uplifting the economic condition of economically backward people living in the country. It is primarily concerned with credit and saving. Although, in recent times different allied services such as insurance, leasing, payment transfers and remittances are being introduced to mix, finance services have proved the powerful instrument for poverty reduction, which enables the poor to build assets, increase income level and reduce their vulnerability to economic weaknesses. It is estimated that, as a region, South Asia has about 45 percent of all the people in the world who use micro-finance services in order to raise their living standards. (Patel, 2007).

However, with nearly one billion people are still lacking access to basic financial services, especially the very poor, the challenge of providing financial services to them. The goal of Micro Credit Summit Campaign (MCSC) is to reach 100 million of the

world's poorest families with credit for self-employment and other financial and business services by 2005. According to MCSC authorized data in December 2003, the access of Micro Credit by 3164, Micro Credit Institutions have reached to 92,270,289 clients, among these people 66,614,871 were poorest people. (Harris, 2007).

2.1.2 Meaning and Definition of Cooperative

The word "Cooperative" has been derived from the Latin word "Cooperate" which means in its ordinary sense working together but in broad sense, it means the system of people voluntarily associated working together in terms of equality to eliminate their economic exploitation by middlemen in respect to any exploitation.

Cooperative exists by live and let live. Cooperative is associated with human being in every stages of life. It may be compared with the company of birds, beats and insects. It teaches everyone to maintain discipline life and coordination among each other. A cooperative organization is more guided by the service. It has render to the members than by the profit motive. It is completely different from other business organizations.

Bidhe has defined "Cooperative represents itself as a happy means between the forces of extreme individualism on one hand and Socialism and Communism on the other. It stands for individual rights tampered by consideration of justice, equality and fair dealing between man and man and its one great aims is to prevent the exploitation the weakens by the stronger party. (Bhide, 1930)

Calvart has defined cooperative as "A form of organization whereas the person voluntarily associate together for a common economic need to lift themselves and others out of weakness into strength through business organization, conducted for the common benefit of all who joint it." (Dahal, 1989)

The International Cooperative Alliances (ICA) Continental meeting held at Manchester, England in 1995 defined "A cooperative is an autonomous economic, social and cultural needs and aspiration through a jointly owned and democratically controlled enterprise." (Sahakari Prababa, 053/054)

By the definition of International Labour Organization (ILO), its covered most of the principles of cooperative as such can be considered to the most comprehensive one. Cooperative society is "An association of the economically weak who voluntarily associating on the basis of equal right and equal responsibility transfer to an undertaking one for several of their functions, corresponding to one of their economic needs which are common to them all but which each of them is unable fully to satisfy by his own individual efforts and manage and use such undertakings in mutual collaboration to their common material and moral advantage." (Shrestha, 1984).

According to Maldenal, "They are association of persons, small producers or consumers who have come together voluntarily to achieve some common purpose by a reciprocal exchange of service through a collective economic enterprises working at their common risk and with resources to which all con but." (Mathema, 1969).

The progress of cooperative movement has been slow and in the some countries it is exceeding slow. In the constitution of Nepal, it has been resolved to secure to all the citizens of Nepali justice, social, economic and political. As such cooperative societies have been given an important place in the constitution.

Economic development and social change are equally vital elements in the reconstruction of Nepal's socio-economic structure. Cooperation is one of the principle means for bringing about charges of a fundamental nature in the country. As such cooperative development has got priorities and various efforts have been made by the government through various economic plans to propagate the idea of cooperative in the country.

Financial cooperatives are non-profit making organizations established for the mutual benefit of the members. They are registered under the cooperative Act, 1992 at the respective District Cooperative Offices under the Department of Cooperative, Ministry of Agriculture and Cooperative and are allowed to accept deposits from and advance loans to their members only. They are authorized to carry on limited banking transactions among their members with prior approval of Nepal Rastra Bank (NRB).

Hence, the above given discussion concluded that cooperative is a form of organization specially of the weak and powerless people where in actual users of certain goods and services voluntarily associate together as human beings, on the basis of equality for the promotion of their economic interest by honest means. Cooperative is the superior philosophy of life besides of a form of business organization.

2.1.3 Principle of Cooperative

Principles of cooperative refer to the guidelines to give the concrete form to the norms and values of cooperative organization. In other words cooperative principles are the set of rules and regulations to regulate and govern the activities of cooperative enterprise. The principles of cooperative are sociability and mutual aids the progress of organic life the improvement of the organism and the strengthening of the species, which become utterly incomprehensible.

There have been three types of cooperative systems, which are Rochdale System, Raifferson System and Schulze System. The first system was concerned with consumer, the second with the farmers and the third with traders. Here, the principles have been generalized and taken from the Rochdale pioneers as the guideline principles for all kinds of cooperative activities for the attainment of predetermined goals.

The principles of cooperative have been given new dimensions from time to time to suit the changing environment and situation in order to make the cooperative movement more meaningful and purposeful. Due to rapid changes in the economy of the world, the need for review of the principle of cooperative was increasingly felt. In 1963, the International Cooperative Alliance had reviewed the existing principles. In 1995 September, the ICA General Committee Meeting enunciated the following as the principle of cooperative. (Cooperative Training Center, 2062). Those principles have been commonly adopted all over the world.

1. **Voluntary and Open Membership:**

   Cooperative organization is a voluntary organization. The membership of a cooperative society is open to all. It does not discriminate and show disparity to

any on the basis of caste, sex, politics and religious beliefs. Every body has the chance for free entry and exit to the members, which is set by cooperative acts.

2. **Democratic Member Control:**

   Cooperatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary cooperatives members have equal voting rights (one member, one vote) and cooperatives at other levels are also organized in a democratic manner.

3. **Member Economic Participation**:

   There is legal and equal economic participation of the members in this organization. They possess a common capital. A cooperative organization makes provision for reserve fund, dividend fund, patronage dividend fund, employees bonus fund, cooperative education fund and loss compensation fund. The members of cooperative have opportunities to participate in economic activities. In this way, we find two kinds economic participation of members in cooperative organization.

4. **Autonomous and Independence:**

   Cooperative organization is an autonomous, independent and an organization controlled by its members. It is free from direct control of government and it does not make any agreement with the government or any other parties losing its autonomy democratic control.

5. **Education, Training and Information:**

   Cooperative launches training to its members, elected representatives and staff members. Cooperative education is necessary to make the members acquainted with the basic principles of cooperative otherwise cooperative may die. For the qualitative management and development of cooperative organization, it should provide cooperative education, training and information to the members based on cooperative values and norms.

6. **Cooperation among Cooperative:**

   Cooperative among the cooperative is necessary for the smooth operation and all round progress of the cooperative movement. Mutual understanding and interdependence among cooperative help to the progress of development of cooperatives. Cooperation develops closeness. Cooperatives are organized to each other to make the cooperative mission strong at the Local, Regional, National and International.

7. **Concern for Community:**

   Cooperatives work for the sustainable development of their community through policies approved by their members.

2.1.4 Historical Background

2.1.4.1. Global Prospective

Although cooperative as a form of individual and societal behaviour is intrinsic to human organization, the history of modern cooperative forms of organizing dates back to the Agricultural and Industrial Revolutions of the 18th and 19th centuries. The 'first co-operative' is under some dispute but there were various milestones.

In 1761, the Fenwick Weavers' Society was formed in Fenwick, East Ayrshire, Scotland to sell discounted oatmeal to local workers. Its services expanded to include assistance with saving and loans, emigration and education. In 1810, social reformer Robert Owen and his partners purchased New Lanark mill from Owen's father-in-law and proceeded to introduce better labour standards including discounted retail shops where profits were passed on to his employees. Owen left New Lanark to pursue other forms of cooperative organization and develop co-op ideas through writing and lecture. Cooperative communities were set up in Glasgow, Indiana and Hampshire, although ultimately unsuccessful. In 1828, William King set up a newspaper, *The Cooperator*, to promote Owen's thinking having already set up a cooperative store in Brighton.

The Rochdale Society of Equitable Pioneers, founded in 1844, is usually considered the first successful cooperative enterprise, used as a model for modern co-ops, following the 'Rochdale Principles'. Rochdele principles of co-operative discussed in cooperative literature through out the world are:

1. Open membership
2. Democratic control
3. Distribution of surplus in proportion to purchase limited interest on capital
4. Religious and political neutrality
5. Cash trading and promotion education.(Hajeta, 1978).

A group of 28 weavers and other events such as the founding of a friendly society by the Tolpuddle Martyrs in 1832 were key occasions in the creations of organized labour and consumer movements.

2.1.4.2. History and Development of Cooperative in Nepal

The word "Cooperative" and its concept is not a new. Everyone has already familiar for about its concept and principles. Self-help, mutual help and cooperative are in practice among the people from the very ancient times. Concept of cooperative is developed with the development of human civilization. Getting together with a view to helping each other or social occasions like marriage, shradha and other performing agricultural activities like plugging, sowing, crop protection, harvesting is a traditional of doing thinks in the rural mountainous and even the growing urban areas of Nepal. The different types of cooperative societies DHARMA BHAKARI, DHIKURI, PRAMA, GUTHI and MANKAKHAL are used in practice in Nepal from the ancient time.

DHARMA BHAKARI means a religious store, which is a kind of grain bank. Each family in the village puts aside certain quantities of grain after the end of the harvest season. At the time of scarcity, the quality of grains is distributed on advance to farmers.

Loan is advanced from the grain bank only to the villagers who have contributed to the bank and agree to pay the loan in kind with interest.

DHUKURI is another type of rural cooperative, which is the best example of voluntary cooperative of the Thakali society. It is formed by a group of people with a specific work. It is one of the important and popular forms of cooperation in Nepal. This system of cooperative is also utilized in all part of the country. In this system, the members prepare the rules and regulation. Every member is required to contribute certain amount of capital toward its fund. The fund is to be contributed on the basis of financial requirement of the members.

PARMA is still a type of traditional rural cooperative operation. Historically, it is the first form of cooperative in Nepal. It is a socio-economic organization in which farmers, neighbors, friends and relatives work with cooperative operation promote their economic and social interests.

MANKU GUTHI is practices as group farming is Kathmandu valley. Each group is called MANKAKHAL and the head of that group is called THAKULI, which means the chairman of that group. Informal groups of farmers are formed for doing agricultural operations like cultivation, sowing and harvesting.

In this way, the concept of cooperative in Nepal is not a new one. It is familiar from those days when people had the knowledge to live together in a society or community. But we can't ascertain the actual date when the cooperative movement was started in Nepal. Many types of informal cooperative were running in different parts of Nepal but those are not in a position to take formal slope of cooperative. If, we turnover the history of cooperative movement of Nepal, the organized history can be traced back to about 54 years old. Formally, the history of Nepal has been started after the establishment of cooperative development in the year 1953 under the Ministry of Agriculture for the promotion, supervision and evaluation of cooperative societies.

In the beginning, cooperative movement was agreed up with the establishment of 13 credit cooperative societies in 1956 as part of the resettlement program for the flood stricken people of Rapti Dum Besi under the active support of United State Agency for

International Development (USAID) on experimental basis. These cooperatives were previously registered under an executive order of government of Nepal.

The history of cooperative society dates back to 1956 A.D. in which year then the government incorporated Bhakhan Saving and Credit Cooperative Ltd. In Rapti Valley, Chitwan by issuing executing order for its legal validity. (Baral, 2005). The thirty-year Panchayat Regime also attempted to promote cooperatives by enforcing the cooperative Act, 1959 (2016 B.S.) and Cooperative Regulation, 1961 (2018 B.S.).

However, cooperative became burdensome to the government due to the weak management, want of autonomy and unscientific accounting system of saving and credit. After the restoration of democracy in 1990 (2047 B.S.), then the government considered cooperative as a means of poverty alleviation.

Table 2.1 Major Events of Cooperative Movement in Nepal.

Year	No of Activities	Events of Cooperative Movement
2010 (1953)	1.	Establishment Department of Cooperative under the Ministry of Plan Development and Agriculture.
2013 (1956)	1.	Issue of executive order for the legal recognition of Cooperative Society in Chitwan District.
	2.	Credit Cooperative Society for the first time, was established in Chitwan District.
2015 (1958)	1.	The district level staff of DOC under the administrative control of Rural Development Block carried out cooperative activities.
2016 (1959)	1.	DOC was kept under the Ministry of Food, Agriculture and Forestry
	2.	Cooperative Society Act, 2016, came into effect.
2018 (1961)	1.	Cooperative Society Rules, 2018, came into effect.

	2.	The first amendment of Cooperative Society Act, 2016
	3.	Establishment of Cooperative Development Fund
	4.	Establishment of Sajha Society (Sajha Central Office)
2019 (1962)	1.	Establishment of Cooperative Training Center
	2.	Establishment of Credit and Marketing Cooperative Union.
	3.	Cooperative Bank Act, 2019, came into effective
	4.	DOC was transferred to the Ministry of Panchayat
2020 (1963)	1.	Establishment of Cooperative Bank
	2.	Conversion of Rural Development Blocks into District Panchayat & Cooperative section was kept under the District Panchayat
2021 (1964)	1.	Initiation of Agriculture Re-organization Programme
	2.	Initiation of Supervised Credit System
	3.	Transfer of Staff members in Cooperative activities to the Land Reforms programme
	4.	Publication of "Sahakarita" (Cooperation).
2023 (1966)	1.	DOC was kept under the Ministry of Land Reforms, Agriculture and Food.
2024 (1967)	1.	Formation of Central Investigation Committee on cooperatives
	2.	Emphasis on 'Sajha Management' in the 7th point in the Back to the Village National Campaign
	3.	Conversion of Cooperative Bank into Agricultural Development Bank (ADB)
2025 (1968)	1.	Transfer of administrative and developmental works being carried out by DOC to the Department of Land Reforms.

2026 (1969)	1.	DOC was kept under the control of the Ministry of Land Reform.
	2.	Implementation of the Coordinated Agricultural Development Programme
	3.	For the first time, Compulsory Saving (Anibarya Bachat) converted into shares in Bhaktapur
	4.	Credit and Marketing Cooperative Union was converted into District Cooperative Union
	5.	Return of Cooperative promotional and strengthening of activities undertaken by the Department of Land Reform to DOC
	6.	Introduction of guided cooperative programme emphasizing qualitative growth through reorganization and amalgamation.
2027 (1970)	1.	The second amendment of the Cooperative Society Act, 2016.
	2.	Introduction of Cooperative Strengthening Programme.
	3.	Establishment of Central Cooperative Strengthening Committee.
	4.	Establishment of District Cooperative Strengthening Committee.
	5.	Transfer of management of Cooperatives to ADB.
2028 (1971)	1.	The first amendment of Cooperative Societies Rules, 1961
2030 (1973)	1.	Implementation of Cooperative Education Programme regularly
2033 (1976)	1.	Integration of Population Education with Sajha
	2.	Implementation of Sajha Programme emphasizing Sajha in a wider scale
	3.	The second amendment of Cooperative Society Rules, 2018

	4.	Compulsory Savings was converted into the share capital of Sajha Society
2034 (1977)	1.	Introduction of Sajha Society Administrative and Financial Regulation, 2034
2035 (1978)	1.	Transfer of Sajha Societies' Management handled by ADB to the managing committee of cooperatives.
	2.	Introduction of Sajha Society Financial and Administrative Regulation, 2035
	3.	More emphasis on the qualitative growth of Sajha Societies than on quantitative growth
2037 (1980)	1.	Implementation of Small Farmer Cooperatives
	2.	Introduction of Sajha Society Financial and Administrative Regulation, 1980
	3.	Special focus on co-operative system in the Constitution of Nepal.
2041 (1984)	1.	Enactment of Sajha Society Act, 2041, for making the cooperative development campaign effective
2042 (1985)	1.	Conversion of DOC into Sajha Development Department
	2.	Conversion of Cooperative Training Center into Sajha Development Training Center
	3.	Conversion of the Regional Cooperative Office into Regional Sajha Development Office
	4.	Conversion of the Cooperative Section into Sajha Development Section
2043 (1986)	1.	Announcement of Sajha Sanstha Rules, 2043
2044 (1987)	1.	Formation of a 17-member 'High Level Central Coordination Commission for making the Sajha campaign more strong and effective
	2.	Sajha Development Department was transferred to the

		Ministry of Agriculture
2045 (1988)	1.	Announcement of compulsory savings to be refunded to the depositors
2047 (1990)	1.	Remittance was announced by Government of Nepal up to the interest and compensation exceeding the principle amount in case of a full payment of principal paid by debtors within July, 1991.
	2.	Formation of an *ad hoc* committee for National Sajha Cooperative
2048 (1991)	1.	Formation of a seven-member National Cooperative Federation Consultative Committee for submitting its opinion in order to strengthen the Sajha campaign and make it effective. The report presented by the Committee.
	2.	Dissolution of Sajha Central Office
	3.	Formation of a 11-member National Cooperative Development Board for the preparation of policy based norms, organizational structure its mobilization system, activities of cooperative movement for the preparation of necessary rules, bye-laws and other infrastructure in order to establish organizations from village level to central level.
2049 (1992)	1.	Enactment of Cooperative Act, 1992.
	2.	Formation of District Cooperative Implementation Committee and an *interim* steering committee for continuation of cooperatives until January,1992
	3.	Conversion of Sajha Development Department into DOC.
	4.	Conversion of Sajha Development Training Center into CTC.
	5.	Conversion of Regional Sajha Development Office into Regional Cooperative Office

	6.	Conversion of Sajha Development Section into District Cooperative Office.
2050 (1993)	1.	Enactment of Cooperative Society Rules, 2050
	2.	Dissolution of Regional Cooperative Office
	3.	Nationwide election of cooperative societies/unions.
	4.	Establishment of National Cooperative Federation
	5.	Establishment of Central Consumer Cooperative Union.
	6.	Establishment of Central Milk Producers Cooperative Union.
	7.	Formation of a large number of Single-purpose Cooperatives such as Consumers Cooperatives, Milk Producers Cooperatives, Saving and Credit Cooperatives throughout the country.
2051 (1994)	1.	Publication of "Sahakari Sandesh" (Co-operative Message).
2052 (1995)	1.	Distribution of Rs. 31.8 million to the old cooperative employees by NCF as benefits received from Government of Nepal for only one time.
2054 (1997)	1.	Reception of the membership from the International Cooperative Alliance (ICA).
	2.	Initiative taken by NCF for observance of International Cooperative Day.
2055 (1998)	1.	Nepal (NCF/N) was elected for the post of Vice-Chairman of the Agriculture Committee for ICA, Asia and the Pacific Region.
2057 (2000)	1.	Nepal (NCF/N) was elected for the post of Chairman of the Agriculture Committee for ICA, Asia and the Pacific Region.
	2.	Conversion of Ministry of Agriculture into the Ministry of Agriculture and Cooperatives.

	3.	Establishment of the National Cooperative Award by NCF.
	4.	Formation of the National Cooperative Development Advisory Working Team and submission of report.
	5.	The first amendment in the Section 26 of the Cooperative Act, 2049
2058 (2001)	1.	Announcement of observance of International Cooperative Day by the Government.
	2.	Republication of "Sahakari Sandesh " weekly.
2059 (2002)	1.	Cooperative Ministers' Conference hosted by Nepal organized by International Cooperative Alliance, Regional Office for Asia and the Pacific, New Delhi in collaboration with National Cooperative Federation of Nepal.
	2.	The Ministry of Agriculture and Cooperatives has issued a circular, saying that there is no restriction for the eligibility of 'civil servant' as shareholder of cooperative although the Sec. 14 of the Anti-corruption Act refers to civil servant not eligible to become the shareholder of cooperatives.
	3.	Nepal elected for the member of ICA ROAP Standing Committee.
2060 (2003)	1.	Establishment of National Cooperative Bank Ltd.
	2.	Seventh General Assembly of Network for Development of Agricultural Cooperatives' (NEDAC) was held in Nepal from 29th Oct. to 1st Nov. In which Nepal was elected as Co-Chairman for two years.
2061 (2004)	1.	National Cooperative Federation of Nepal established "National Cooperative Development Fund, NCDF
	2.	Nepal Government constituted a high level cooperative sector improvement consultative committee under convenorship of the Minister of Agriculture and Cooperatives submitted its

		report to the Government of Nepal.
	3.	Ministry of Finance constituted to study the legal frame work and institutional development of the savings and credit cooperative society and National Cooperative Bank under the conveniorship of then Member of Ghanashaym Khatiwada submitted it's report to the Ministry of Finance.
	4.	Government of Nepal announced the policy of GOAN-GOANMA SAHAKARI GHAR GHAR GHAR MA ROJGARI through it's budget of the current fiscal year 2061-62
2062 (2005)	1.	Completion of Second National Women Cooperative Congress held at Kathmandu.
	2.	Change of Name of MOAC.
	3.	Change of name of CTC into Central Cooperative Training Centre.
	4.	Change of name of District Cooperative Office into Division Cooperative Office.
	5.	Establishment of Regional Level Cooperative Training Office combining with Division Cooperative Office in Kailali, Surkhet, Kaski and Chitawan.
	6.	Grant of the sum Rs. 1. Million by Government of Nepal to NCF as a token for NCDF
2063 (2006)	1.	Change of Agriculture Policy Unit into Agriculture and Cooperative Policy Unit in MOAC for coordination and establishing contact about cooperative policy-making.
	2.	Election of Nepal as Standing Committee Member of ICA/AP.

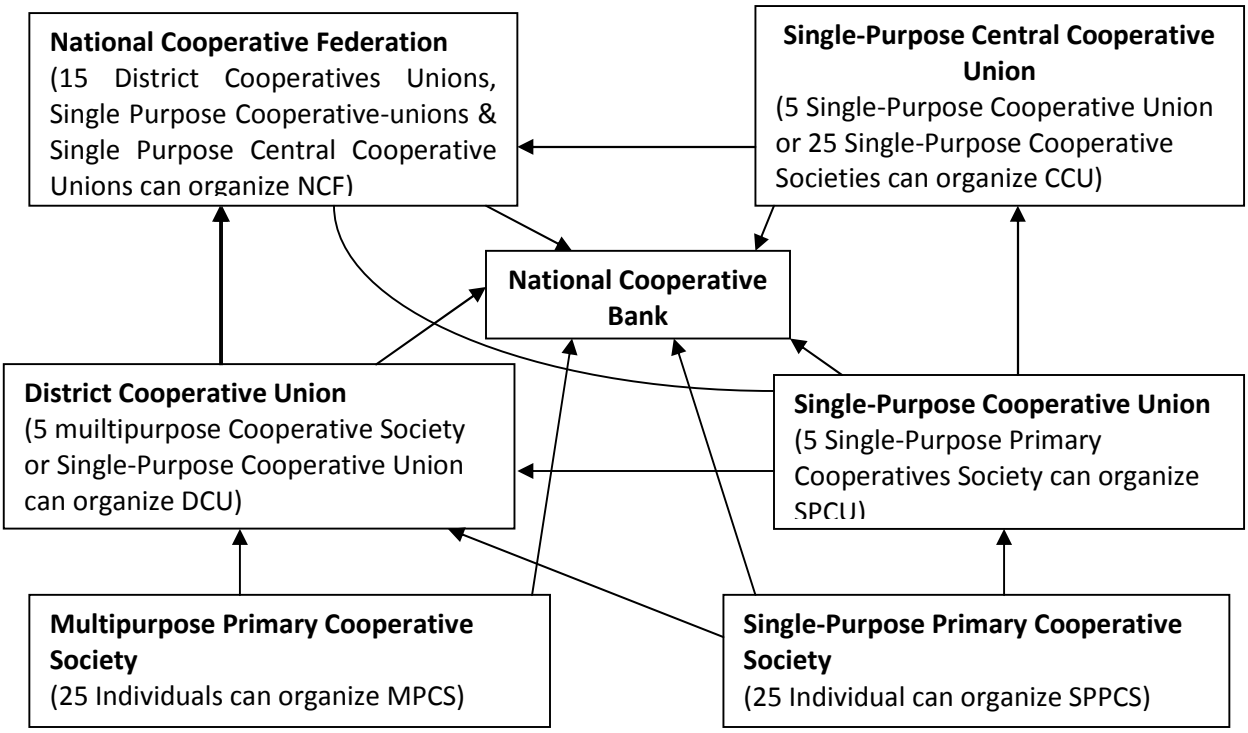
	3.	Establishment of Central Coffee Producers Cooperative Union
	4.	Establishment of Central Fruits and Vegetables producers Cooperative Union.
	5.	Election of Nepal as Vice-chairman of Housing Cooperative Foundation.
	6.	Beginning of Cooperative Golden Jubilee 2063/64 throughout the country for full year.
2064 (2007)	1.	Completion of Cooperative Golden Jubilee 2063/64 with four special cooperative publications.

Source: National Cooperative Federation of Nepal (NCF/N)

The above activities during last 53 years in the history of cooperative movement in Nepal are enough to say that cooperative development passed through many managerial ups and downs causing a high inconsistency. The cooperative movement remained affected by the political changes in the nation that brought the situation among the people not to believe readily in the philosophy of cooperative in practice. Moral objectives, social obligation, service to members, good quality, cheap pricing, reasonable profit, cooperative principle have been the major challenges for cooperative organization in the present context of competitive market.

2.1.5. Organizational Structure of Cooperatives

The cooperative movement of Nepal has a three-tier system e.g. primary, secondary and national level in terms of multi-purpose cooperatives and a four-tier system e.g. primary, secondary, tertiary and national level in terms of single-purpose cooperative. Multi-purpose cooperatives and single-purpose cooperatives at all levels have vertically and horizontally linkages. Cooperatives at all levels are with NCF/N, CCU and DCUs. The Organizational Structure of the Nepalese Cooperative Movement is as follows:

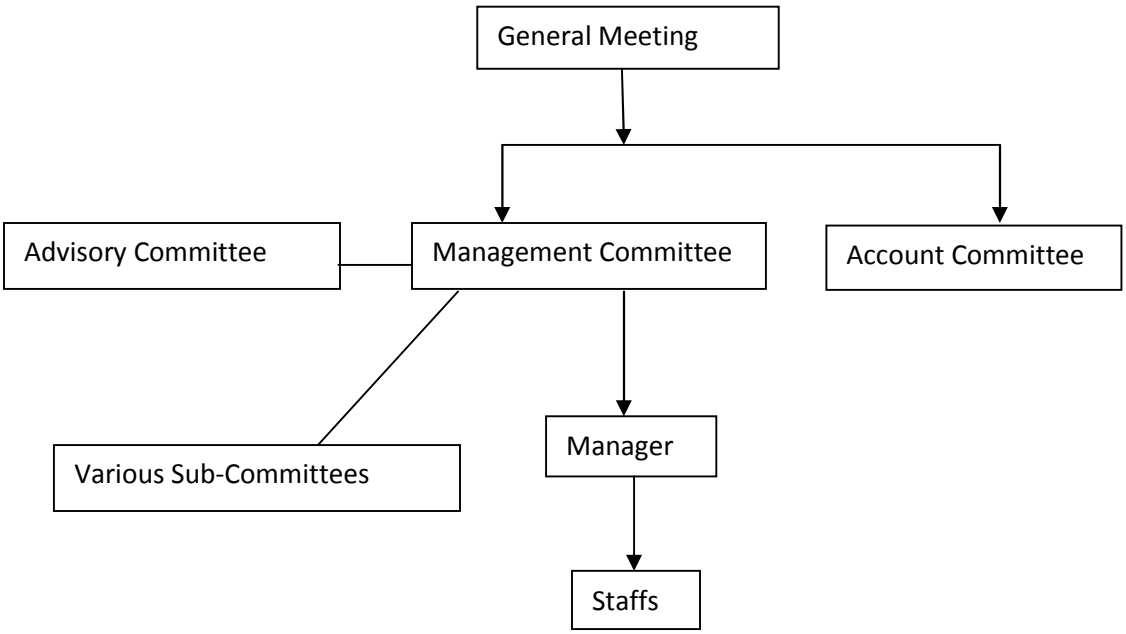


The major functions of the primary cooperative societies is to benefit the members by providing necessary services and helps in the development of the members socio-economic conditions and the community by providing services in group and community basis as well as provide other services for the betterment of members. It is formed with 25 members where as secondary level or district level union is the secondary tier formed with the affiliation of at least 5 primary cooperative societies. It provides necessary services needed by the members by coordinating its member's societies. Central cooperative union is a central level union of the commodity based primary societies or and district unions, which is responsible for promotion education, cooperation and training activities for its members. Central cooperative union can be formed with the affiliation of at least 25 single purpose cooperative societies or 5 district cooperative unions of the same nature.

The last and the higher tier of the cooperative is the National Cooperative Federation, which is a national level organization of all types of cooperatives. It is formed

with the affiliation of all unions with the minimum number of 15 unions. Besides this, any types of cooperatives, society, unions and federations can be the member of the National Cooperative bank. This bank helps to the societies, unions and cooperative by providing different services like accepting deposits and lending loans at the time of needed.

The organizational structure of the cooperatives is as follows:



Existing Situation of Cooperative

The existing situation of cooperative in Nepal (up to 2064) is as follows:

1. Division Cooperative Office - 49

2. Cooperative Societies Operation District - 75

3. National Cooperative Federation - 1

4. Subject-wise Cooperative Central Union - 5

5. National Cooperative Bank - 1

6. District Cooperative Union - 49

7. Subject-wise Cooperative District Union - 83

8. Primary Cooperative Societies - 9720

Source: National Cooperative Federation of Nepal (NCF/N)

Table 2.2: District Cooperative Union (Lalitpur District)

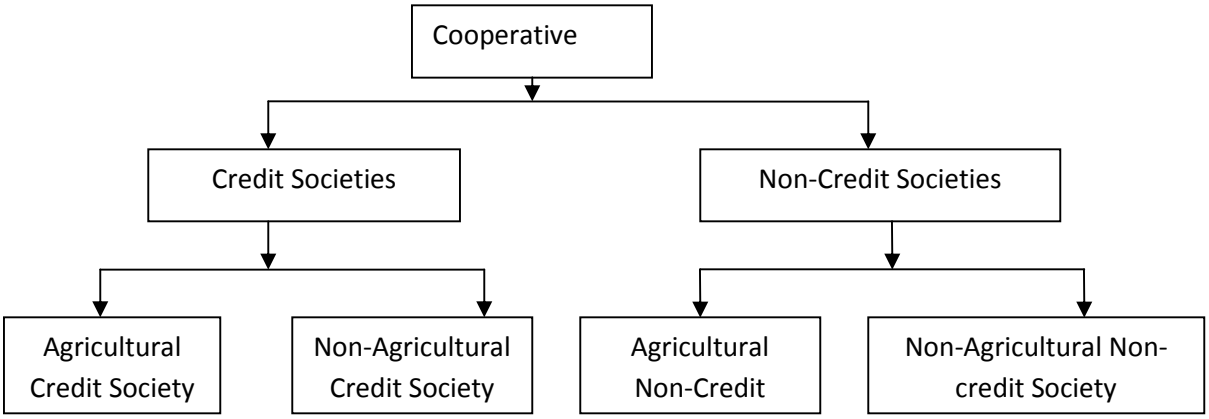
S No.	Particular	No. of Cooperative	Share Capital ('000)	No. of Person
1.	Multipurpose	149	381150	18077
2.	Saving & Credit	191	143514.4	22978
3.	Dairy	42	216	1202
4.	Agriculture	54	1906	2056
5.	Consumer	3	364	55
6.	Others	16	6624	479

Source: Cooperative Department (www.doec.org.np)

2.1.6. Types of Cooperative Societies

Now a days, Cooperative has its wide coverage in many economic activities of human life. It has been considered as a life style under which people work together for common economic & human interest. Cooperative has different types as per its purpose. Mainly all the cooperative are categorized into two types. They are: Cooperative Credit Societies and Cooperative Non-credit Societies. Cooperative credit societies are further classified into agricultural credit societies and non agricultural credit societies. Non-credit societies

are classified into agricultural non-credit societies and non-agricultural non-credit societies. This can be clearly shown from the following chart.



The Agricultural Credit Society is formed in the rural area among the farmers to avail short-term loan to farmers and promote their savings where as the Non-Agricultural Credit Societies are formed in the urban areas. Urban banks, life insurance societies, salary earner's societies, fisherman's societies, consumer's cooperative societies, industrial cooperative societies and cooperative housing societies are the prominent non-agricultural credit societies.

Agricultural Non-Credit Societies include cooperative purchase and sale societies, cooperative marketing societies, better farming societies, cooperative irrigation societies, cattle insurance societies, crop protection societies, cattle breeding societies, cooperative farming societies and cooperative better living societies. Similarly, Non Agricultural Non-Credit Societies include consumer's cooperative societies, producer's cooperative societies, cooperative farming societies, cooperative processing societies, cooperative marketing societies, industrial cooperative, etc.

The Major Types of Cooperatives in Nepal are as Follows:

1. **Multipurpose Cooperative Societies:** Multipurpose Cooperative Societies render their services through different channels in different fields and their aim is an all

round economic development. There are 2681 multipurpose cooperative societies in Nepal up to 2064.

2. **Saving & Credit Cooperative Societies:** Saving & Credit Cooperative work for promoting the savings of the people, collecting such saving and granting loan to the members for different productive business at low rate of interest. In Nepal, where people have low income level, spendthrift and suffer from the exploitation of private lenders, such cooperative are very important for the uplifting the economic condition and life style of those people. After the enactment of Cooperative Act 2048, a number of credit & saving cooperatives have been established and they are increasing day by day. The no. of saving credit cooperatives has reached 3664 up to 2064 in Nepal.

3. **Milk Producer's Societies (Dairy Cooperatives):** Being a mountainous country with grassy land, Nepal has a high prospect of dairy products. In this context, milk producer's societies or dairy cooperatives can play the vital role for material development by helping the milk producers in their business. There are 1563 no. of dairy cooperatives in Nepal up to 2064.

4. **Consumer's Cooperatives:** Consumer's Cooperative eliminate the exploitation of middlemen upon consumers. Consumers cooperatives are established by consumers not to suffer from the problems like under weighting adulating of foodstuffs, artificial boosting up of prices of commodities, etc. Such societies have been very common in Nepal. The no. of such consumer societies had reached 108 up to 2064

5. **Agriculture Cooperative Societies:** Agriculture is the backbone of economic development in Nepal. To develop the economic condition in Nepal, aggregate scientific agricultural system should be conducted. Agriculture Cooperative Societies have objective to provide the agricultural instruments & tools, improved seeds, fertilizer to the farmers at reasonable price. Now, the no. of agriculture cooperative has reached 1255 up to 2064.

6. **Cooperative Marketing Societies:** The Cooperative Marketing Societies encourage farmers to produce more and help them for marketing their products at reasonable prices. They save farmers from the exploitation of private profiteers. In Nepal, though there are some cooperatives working but they are suffering from transport facilities, scarcity of capital & lack of trained persons.

7. **Cottage Industrial Societies:** Cottage Industrial Societies play significant role for economic development in the country. These societies are established for facilitating the cottage industries for raw materials, equipments, marketing & so on. Such cottage industrial societies are organized in different parts of country e.g. Tansen, Dhankuta, Ilam, Patan, Banepa, Birgunj, Pokhara, etc.

8. **Others:** There are other cooperatives of different kinds in different sectors such as poultry farming societies, Tea & Coffee, Herbal, Science & Technology, Women's Cooperative, Small farmers, Electricity, Health, etc.

2.1.7 Portfolio Analysis of Cooperative

Portfolio refers to investment in more than one asset to minimize the risk. An investor wants to minimize the risk and of investment and maximize return but it is not possible through investment in a single assets. He/She needs to invest in two or more securities. This collection of securities is called portfolio. The basic assumption of portfolio theory is that an investor want maximize the return from the investment for a given for a given level of risk. It also assumes that investors are basically risk averse, meaning that, given a choice between two assets equal rates of return they will select the assets with the lower level of risk. Risk is the deviation of actual returns from the expected return. The more the deviation, the more will be the risk. To minimize the deviation, we need to diversify our fund into different assets.

Portfolio analysis considers the determination of future risks and returns in holding various blends of securities or assets. The objective of portfolio analysis is to develop a portfolio that has the maximum return at whatever level of risk the investor

deems appropriate. Diversification of portfolio helps to minimize risk and different diversification techniques have been developed for reducing portfolio's risk.

Portfolio analysis of cooperative is useful to know if the investment made by the cooperative is safe or not. The analysis helps to find out how much amount is investment in which factor and if there is return as per the risk taken by the cooperative or not. Here I have used PEARLS analysis tools to identify the risk of the cooperative. Different factors like protection, efficiency, assets quality, rate of return, liquidity and sign of growth have been used to analyze the current position of the cooperative and to know where it secure or not. With the help of these analytical tools we can know if the cooperative are performing effective or not.

2.1.8. Brief Description of Cooperatives:

2.1.8.1. Manasalu Multipurpose Cooperative Society Ltd:

Manasalu Multipurpose Cooperative Society Ltd was established in 29th Mangsir 2056 according to the Nepal Government Cooperative Act 2048 at Pulchowk, Lalitpur, Nepal. Currently there are 478 members in this Cooperative including 174 male and 304 female till fiscal year 2063/64. The current paid up capital of this cooperative is 1,457,800 till fiscal year 2063/64 which has been increased by 25.38% with comparison to the previous year. The main objective of this cooperative is to develop social economic, socio-cultural development and provide smooth operational facilities following the rules of cooperative Act of Nepal.

2.1.8.2. Scope Cooperative Society Ltd:

Scope Cooperative Society Ltd was established in 22th Bhadra 2050 according to the Nepal Government Cooperative Act 2048 at Patan Dhoka, Lalitpur, Nepal. Currently there are 1289 members in this Cooperative including 697 male and 592 female till fiscal year 2063/64. The current paid up capital of this cooperative is 5,672,900 till fiscal year 2063/64 which has been increased by 9.43% with comparison to the previous year. The main objective of this cooperative is to develop social economic, socio-cultural development and provide smooth operational facilities following the rules of cooperative Act of Nepal.

2.1.8.3. Padmavati Saving and Credit Cooperative Society Ltd:

Padmavati Saving and Credit Cooperative Society Ltd was established in 30th Mangsir 2050 according to the Nepal Government Cooperative Act 2048 at Na Bahal, Lalitpur, Nepal. Currently there are 1365 members in this Cooperative including 651 male and 714 female till fiscal year 2063/64. The current paid up capital of this cooperative is 8,999,100 till fiscal year 2063/64 which has been increased by 69.65% with comparison to the previous year.

2.1.9 Theoretical Prescription of PEARLS Framework

PEARLS is a system of 39 financial ratios which the World council of Credit Unions (WOCCU) employs to provide a detailed picture of credit union operations. Standing for **Protection, Effective Financial Structure, Assets Quality, Rate of Return, Liquidity, and Signs of Growth**, the PEARLS system was originally designed and implemented with Guatemalan credit unions in the late 1980s. WOCCU now uses it worldwide to monitor the performance of credit unions, to create a universal language that each credit union can speak and understand, to generate comparative credit union rankings, and to provide the framework for a supervisory unit at the second tier. Also, PEARLS presents financial variables upon which credit unions can base their business planning.

Initially, WOCCU staff tried to adapt the US CAMEL ranking system to the credit unions in Guatemala, but found that several modifications were needed. CAMEL is a supervisory tool in the U.S. Its ratios intend to protect the solvency of institutions and the safety of member deposits. Beyond supervision, WOCCU was looking for a tool that would evaluate the financial structure of the balance sheet, critical to Guatemalan credit unions undergoing a major restructuring of assets, liabilities and capital. In addition, credit union mangers needed to monitor growth of total assets, seen as key to addressing the problems resulting from monetary devaluations and runaway inflation. In essence, PEARLS was designed first as a management tool, and later became an effective supervisory mechanism. (Evans, 2007).

Drawing on the results of using PEARLS in Guatemala, WOCCU adopted a new approach to credit union development in 1994. In the ***new model credit union***, market pricing for products and services facilitates local savings mobilization. With PEARLS, WOCCU has set international financial standards for credit union performance. Key rations within the PEARLS are summarized below:

2.1.9.1. Protection (P)

Protection means to safeguard the members from losing their amount of savings made at the institution. In cooperative every client should be the member. Anybody else can open the account and borrow the money only after receiving membership of the cooperative. But unless and until potential member do not feel safe to the deposit, they do not deposit their saving. On the other hand, while providing loan to its members, there may be loan delinquencies. It will put the institutions to an operating trauma and losses the credibility among the members. For that allowances for loan losses are essential since delinquency signals that loans pare at risk. Thus the institutions must set aside earnings to cover these possible losses to protect the member saving.

According to the WOCCU model, protection against loan losses is deemed adequate if a cooperative has sufficient provision to cover 100 percent of all loans delinquent for more than 12 months and 35 percent of all loans delinquent for 1-12 months. (Richardson, 2007). In Nepal, cooperative licensed for limited banking services: collection of saving and lending the money should have 1 percent of Pass loan (Loan & advances not past due and past due for maximum 3 months), 25 percent of Substandard loan (Loans & advances past due 3 months to 9 months), 50 percent of Doubtful debt (Loans & advances past due more than 1 year) for loan loss provision. (N.R.Bank, 2002). But thousands of Saving and Credit Cooperatives are out of the jurisdiction of NRB. So, most of the cooperatives do not have loan loss provision as per the directive.

Inadequate loan loss provision results in two undesirable results: inflated assets value and fictitious earning. Loan loss provision is deducted from gross loan portfolio for accounting reporting. So, inadequate loan provision means deduction of less loan loss provision expenses form gross loan portfolio and overstatement of the value of assets in

the balance sheet. Loan loss provision expense is charged off to profit and loss account. Less loan loss provision expense charge to profit and loss account means the reported net income is overstated. This inadequate loan loss provision inflates the assets value, overstates the earnings and risks the savings of members. In brief, saving is inadequately protected if loan provision in inadequate.

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.

2.1.9.2. Effective Financial Structure (E)

The Effective Financial Structure determines growth potential, earnings capacity and overall financial strength of MFIs. In general, financial structure refers to the composition of different sources of resources. It includes short-term debt and long-term debt as well as shareholders equity. The evaluation of financial structure of the balance sheet is a critical area of concern in many countries since the modernization implies a major restructuring of financial institution's assets, liabilities and capital. Balance sheet structure has a direct impact on efficiency and profitability and these areas are critically important for effective and sustainable MFI operations in a competitive environment.

PEARLS monitoring system measures the effective financial structure focus in both financing of resources and effective use of the resources like loans, investments, deposits, shares and institutional capital of MFIs. An institution has an effective financial structure when assets financed by saving deposits, generate sufficient income to pay market rates on savings, cover operating cost and maintain capital adequacy. (Evans & Brian, 2007).

Institutional capital, all legal reserve and surplus created either form the accumulation of net income or from capital donations, are the second line of defense to absorb unexpected losses. Institutional capital can be invested to expand products and

services. The indicators in this section measure the composition of the most important accounts on the balance sheet.

The PEARLS monitoring system measures assets, liabilities and capital and thereby recommends an ideal structure for CUs. The indicators under effective financial structure help to optimize institutional solvency, profitability and liquidity. It encourages community loans to members, community savings from either rich or poor members and capital accumulation through earnings instead of member's shares.

According to PEARLS system, investment in net loan, liquid assets, financial assets and non-financial investment should be in the range of 70 to 80 percent, 20 percent, 10 percent and zero percent of total assets respectively. This implies that MFIs should not invest in non-financial assets such as supermarkets, pharmacies, residential housing development, etc. financial of total assets with saving deposits, borrowed funds and member share capital should not exceed 80 percent, 5 percent, and 20 percent of total assets respectively. Institutional capital should not be at least 10 percent of total assets of MFIs. (Richardson, 2007).

Institutional capital comprises of regulatory resources, other resources, monetary donations and grants and undivided earnings. In the case of cooperative, ownership share capital is not included in the institutional capital. Share capital can be withdrawal upon the termination of the membership and in some cases it is used to secure the loan. The ratio of institutional capital to total assets measures the capital adequacy of MFIs. It should not come down at least below 10 percent of total assets. (WOCCU, 2007). But, in our country (Nepal), capital adequacy is measured in terms of percent of core capital and total capital on risk adjusted assets of cooperatives. (N.R.Bank, 2002).

2.1.9.3. Assets Quality

Assets Quality is the main variable that affects institutional profitability. Assets quality means the capacity of assets that generate income as well as recoverability of the principal amount as per their prescribed terms and condition. The quality of assets would depend largely on the risk management system of institution. An excess of defaulted or

delayed repayment of loans and high percentage of other non-earning assets have negative effects on institution's earning because these assets are not earning income. Loan and advance dominate the assets side of the balance sheet of any financial institution. Moreover, the earning made from such loans and advances take up a major span in income statement of the institutions. Assets quality measures how effective an institution is at lending money to people who are willing and able to repay promptly from the income generating as a result of investing in the productive sectors.

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 system classified the institution's assets as either productive or non-productive. Loans, security investments, financial investments and other non-financial investments are regarded the productive assets whereas the investments made on fixed assets of institutions or cash on hand are termed as non-earning assets which do not generate income. Further, the loan which became past due for more than 1 year is regarded the non-productive assets. The institutions cannot recover its principal loan amount with interest rate from such delinquent loan and the debtor shows inability to repay it.

PEARLS use these three indicators: delinquency ratio, percent of non-earning ratio and financing of non-earning assets to identify the impact of non-earning assets. (Richardson, 2007). Delinquency ratio measures the delinquency rate of the total loan portfolio. It is commonly referred to as portfolio at risk, is the total outstanding balance of loan delinquent greater than 30 days. It is the most important indicator of the quantity of assets. This ratio is a measurement of institutional weakness because its delinquency is higher then other key areas of institution operations could be weak. Institution depends upon investing the saving deposits in the quality of assets, which inherently possess risk though it generates a higher income compared with other investment. The higher delinquency ratio implies more severity in the financial condition and presence of higher

risk to the member-client savings. This ratio should not exceed 5 percent of the total gross loan portfolio.

The non-earning assets are those assets, which do not generate income. These non-earning assets are cash at hand, non-interest bearing monetary checking accounts, account receivable, assets in liquidation, fixed assets (Land, Building, Equipment, etc) and prepaid expenses and other deferrals. The assets quality measures the percentages of investment of MFIs in non-earning assets. Sometimes, MFIs have to invest their funds in such assets to improve their physical image and attract more new member-clients, increase the member share capital and saving deposits, and finally increase the total assets. Institution needs to reduce the percentage of non-earning assets through considered level of retaining the fixed assets. Institutions may face another acute problem when they finance in the purchases of fixed assets with member shares. All these result, in the low percent of investment in non-earning assets should be temporary. The higher the ratio, the more difficult generating sufficient earnings to cover the operating cost of MFIs and distribute the dividend to their members. So, MFIs should maintain the minimum level of their investment in non-earning assets. Total investment in non-earning assets of MFIs should not exceed 5 percent of their total assets.

As started earlier, increase in non-earning assets deteriorates the earning power of MFIs. In order to neutralize the negative effect of such assets on the profitability through weak earning power, they should be financed with explicit net zero cost funds such as institutional capital, transitory capital and non-interest bearing liabilities. So, MFIs should finance 100 percent of non-earning assets to do away the negative effect on their profitability.

Traditionally, CU uses member share capital to finance the purchase of fixed assets. Under the WOCCU model, the objective is to finance 100 percent of all non-earning assets with CUs institutional capital. It can be also finance with other liabilities that bears no explicit financial cost. The institution earnings are less affected by using such capital to finance the purchase of fixed assets.

2.1.9.4. Rates of Return and Costs (R)

The Rates of Return and Costs indicators monitor the return earned on each type of assets and the cost of each type of liability. On the assets side, one can determine what types of assets earn the highest returns. On the liability side, it can determine what the least and most expensive sources of funds are.

Yield and Costs directly affect the growth rates of an institution. PEARLS system segregates the different components of yield on investment and evaluates the efficiency of management in terms of investment by comparing the yields on different components of the investments and identifies the problem area of operational cost of MFIs.

Yield is computed in four main areas: loan portfolio, liquid investment, financial investments and other non-financial investments. And the cost is broken down into three main areas: financial intermediation costs, administrative costs and unrecoverable loan costs.

PEARLS calculate yields on the basis of actual investments outstanding. This system also disaggregates the essential components on net earning, distinguishing return on the loan portfolio, liquid investments and financial and non-financial investments to help management calculate investment yields and evaluate operating expenses. The results more clearly indicate whether the credit union is earning and paying market rates on its assets, liabilities and capital.

The ‘R’ category also measures operational costs including financial cost paid on deposit saving, share saving and internal loans. The target recommended by the PEARLS system is to maintain operating expenses between 3 to 10 percent of average total assets. The income ratios identify income form loan portfolio, liquid investment, financial investment and non-financial investments. These indicators, which generate income, are to be considered under the rate of return. These indicators help to optimize the balance between portfolio yields, saving deposit yields, dividend on shares, operating efficiency and the capitalization of net earning.

In general, the WOCCU model compares the calculated returns to the entrepreneurial returns and market rate of returns. In the same vein, cost of the funds like cost of the funds raised from the saving deposit, external credit, cost of member share capital also is compared with the market rates. Thus, this component evaluates the yields on the investment and financial cost paid on member savings, member shares and external loans. (Baral, 2006).

2.1.9.5. Liquidity (L)

Managing liquidity is an essential component of administering saving institutions. It is necessary to respond to member-client withdrawal and disbursement demands. The institution should manage the availability of liquidity reserve as the member shares are illiquidity and most external loans have a longer payback period. 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 yields nothing at all. Therefore, MFIs should maintain proper balance between the liquidity and profitability.

Traditionally, liquidity is viewed in terms of cash available to lend in a financial institution. Lending in a financial institution is a variable under the control of the management of an FI. But bringing about the withdrawal saving deposits in an FI has added the new dimension to the concept of the liquidity. In this perspective, liquidity implies the cash required for possible withdrawals of saving deposits. This variable stress that cash required for possible withdrawals of saving deposits is beyond the control of the management of MFIs. So, the management of liquidity has turned out more complicated in MFIs. It should maintain adequate liquidity resources for its sound financial health. The PEARLS system analyses the liquidity of MFIs from two prospective: total liquidity reserve and idle liquid funds.

In the first perspective, the adequacy of cash reserves to satisfy deposit withdrawal requests is measured. Cash reserve after paying the total short-term payables less than 30 days should not be less than 15 percent of the total saving. In the second

perspective, liquidity is measured to analyze whether MFIs have complied with the reserve requirement of regulatory authority. PEARLS system uses two ratios: liquidity reserve to saving deposits and non-earning liquid assets to total assets.

According to WOCCU model, MFIs should maintain 10 percent liquidity reserve of the saving deposit and have non-earning liquid assets less than 1 percent of total assets.

2.1.9.6. Sign of Growth (S)

Sign of Growth reflect the member-client satisfaction, appropriateness of product offerings and financial strength. Growth of assets accompanied with sustained profitability is to the successful MFIs. PEARLS 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 deposit, 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. Annual growth rate should be more than inflation rate.

Loan portfolio, is another important assets of FIs. Growth in total loan should keep the same pace of the growth in the total assets. Lower growth in total assets implies the investment of funds in less profitable assets and conversely the higher growth in loan portfolio signals good probability of maintenance of profitability. Growth in saving deposit affects the growth in loan portfolio and total assets. It affects other key areas of MFIs positively. But high growth in saving deposit may be turned out burdensome if MFIs is not able to mobilize the deposits to profitable investment. The WOCCU model is de-emphasizing the member share capital. But some credit unions may not be able to promote the saving deposits. Such unions are highly dependent on member share capital. So, high growth rate in share capital reflects the weak marketing program.

Growth in institutional capital reflects the profitability of MFIs. It is difficult in adding to institutional capital for an MFI with low earnings. Constant growth rate or declining growth rate indicates a problem with earnings. Sustainable institutional capital

growth rate which is usually greater than the growth in total assets shows the robustness of an MFI. In this section, the different 11 indicators measure the percentage of growth.

2.2 Research Review

This section deals with the review of articles published by different authors in international scenario and review of dissertation written by different authors. The articles and case study in PEARLS are extracted from the official websites of WOCCU Inc., ABCUL Credit Unions, Banking with the poor (BWTP), the Micro Banking Bulletin (MBB) and the BASIS Collaborative Research Support Program (CRSP). The review of dissertation is made by with respect to various authors for their master degree course visiting in Central Library, Kirtipur, Kathmandu.

2.2.1 Review of Articles

Almeyada and Branch carried out a case study on measuring sustainability: Financial and Operational Performance of two CUs namely: Union Popular (UP) and Union Progresista Amatitaneca (UPA) based on PEARLS monitoring system for the periods 1994, 1995 and 1996. (Almeyada & Brian, 2007). They applied 25 indicators as a monitoring tool under PEARLS to monitor the comparison of these two CUs. The study focused in building the institutional base and growth of total assets with reliance in saving and deposits. In addition to it, the provisioning of allowance against the loss assets was also the attention they had paid for. The study exhibited that the UPA was able to generate more institutional capital than UP, a part of strategy to build a more solid capital base. But, contrary to the PEARLS standard, UPA heavily relied on member share rather on saving deposits, which UP was strictly adhering. In conclusion, the study revealed that the application of tools helped the both institution to build a stronger base for their performance.

Branch and Richardson undertook a monograph work in Ecuador credit union micro-enterprise innovation project. The ongoing project was designed to be a technical assistance and training program. The WOCCU worked with 19 CUs and this monograph evaluated the project's impact in four areas CU's membership, CU financial supervision

and governance policies, CU's saving deposits and lending services and CU's financial performance. (Branch & Richardson, 2007).

The project's goal was to expand the CU's micro-enterprises financial services and in turn to increase their assets and income. In terms of CU's financial performance, they applied the PEARLS tools to determine the performance of CU's delinquent loans provisions, how close CU's were to international capital structure standards, the excess CU non-performing assets, the CU's income and cost yields, the CU's management's cash administrative abilities and the growth in key CU's operational areas.

Evans undertook a case study on strengthening WOCCU's partners in a time of crisis using PEARLS financial monitoring in Ecuador. (Evans, 2007). This monitoring system was applied as a tool to monitor and improve their performance. In this case, 12 indicators of PEARLS were applied to monitor the performance. However, the growth in membership and institutional capital with a prime focus in savings deposits was a goal of institution which it has to some extent, attained.

Sasuman undertook the case study on Rural Financial Institutions: Restructuring and Post Restructure Results while working in Credit Union Employment and Strengthening (CUES) Philippines. (Sasuman, 2007). CUES Philippines actively utilized the PEARLS Monitoring System's 46 financial ratios to enable Batch 1 partner cooperatives and monitor their overall financial position. His case study was based in reference to two years break i.e. 1998, 2000 and 2002 using PEARLS ratios. The goal of the project is to improve the performance of credit cooperatives and provide financial services to the segment of the population that do not have access to credit or any other financial services. It partnered and worked on the transformation of eleven credit cooperatives known as Batch 1 from Mindanao. The case study describes the CUES Philippines project, a combination of two methodologies: Model Credit Union Building and Saving and Credits with Education. The project's success in strengthening and empowering credit cooperatives shows that the two methodologies, when provided together, can increase member income and saving and empower women.

Winkworth applied the PEARLS technique in Portsmouth Savers Credit Union when it jointed first ABCUL/Barclays PEARLS Project. (Winkworth, 2007). With initial start up grant funding and a citywide common bond, the CU had one office with two members of staff and had gained nearly 1000 members. At this time the level of expenditure was seven times larger than the income in a year. Working with PEARLS led the staff and board of credit union to see that it was not competitive in the market place. They realized that they needed to make major changes to their policy to enable them to earn enough money to make the business viable when they start up finding came to an end. The CU introduced capacity based lending with focusing the members who apply for loans were now judged purely on their ability to repay the loan and not on their previous saving record with the CU. PEARLS revealed the CU that the satisfaction of savers was equally important. In the three years since PSCU started working with PEARLS, membership has more than tripled to over 2800 and saving were also trebling of the previous PEARLS figure. The CU has a loan portfolio more than four times the amount before the CU introduced the capacity based lending.

2.2.2 Review of Dissertations

Lamsal conducted a research with the objective of examining the financial variability of association whether they are financially sound or not with the help of secondary information as well as primary. (Lamsal, 2000). The major findings from his study were satisfactory assets liquidity position, inefficiency management, un-trend turnover ratio, unsound capital structure, unable to mobilize its funds in profitable sectors, unsatisfactory return on assets and capital employed, unable to utilize its assets capacity, inconsistent credit policy, negligible share capital in terms of financial standard limits. The overall financial performance of the association is very weak. He recommended that the association is required to improve the management and adopt the appropriate financial policy otherwise it may fall in crises.

Ale conducted a research with the objective of diagnosis the financial health of Paschimanchal Gramin Bikas Bank Ltd. in the framework of PEARLS with the help of secondary information using PEARLS tools. (Ale, 2007). the major finding from his

study were able to allocate the allowance for loan losses, maintaining non-earning liquid investments up to its standard, lower the operating expenses consecutively over the periods, the institutional capital has not been attained up to its norms. This is due to the poor assets, which have been fallen in high delinquency and able to attract more deposits so as to augment the total assets. The poor in savings to invest in quality loan portfolio and delinquency has resulted sternly from earning or significant level with respect to PEARLS standard. The institution in the event of focusing primarily in savings deposits to invest in quality loan portfolio will substantially add up the institutional capital as a result of yielding earning that shall eventually ensures the sound financial health of Paschimanchal GBB Ltd. He recommended that the institution to focus on the saving deposits as the main source of growth in total assets and develop an effective marketing program to attract more savings.

Ojha conducted research with the objective of examining the performance of micro-credit financed projects targeted to women with the help of both primary and secondary information. (Ojha, 2002). The major finding from his study is that the program was successful in lending to group members than individual member, training at different levels. This has exerted favorable impact on the execution of professional activities and majority of participating women were literate. He recommended that NGOs are not able to include all the targeted women and failed to meet the required criterion of loan repayment and amount of overdue remained high as compared to the required criterion.

B.K. has conducted the research on the Financial Performance Analysis of Nepalese Cooperative Societies with reference to District Cooperative Association Ltd. Benepa. (B.K., 1994). The objective of this study was to analyze the strength and weakness of the Association by the analyzing of financial statements.

He has concluded that the liquidity position of the Association was satisfactory but the association had investment its fund unnecessarily in current assets. It also meant that the association had not efficient strategic planning policy and management in working capital. The heavy amount of sundry debtors and larger investment in current

assets and loose and insufficient management of debtors clearly revealed that the assets utilization position of the association was not satisfactorily. The association had not maintained its appropriate leverage position due to its improper management of funds and sundry creditors. On an average there is an operating loss of 0.92 percent per year. It clearly shows that it is on operating loss because of heavy operating expenses. The financial performance of the association is found very weak. He has suggested that cooperative should maintain political neutrality. If managed and utilized properly, cooperative can be the back-bone of the economic development of the country. It is best way to mobilize the scattered savings of the small farmers and labors.

Pokhrel has conducted a research on the overall situation of the cooperative movement in Nepal. (Pokhrel, 1988). According to his study, all most all of the village of 30 district were covered by Sajha Societies upto 1988 by which 43 percent cooperatives were suffering from loss in 1983/84. Out of those societies 41.20 percent were of Terai region and 58.80 percent were off hilly region. The same position seems to have been existed in the proceeding years. It shows that the Sajha of Hilly region were poorer than that of Terai. The study concludes that the following problems being faced by the cooperatives in Nepal.

1. Lack of Cooperative education
2. Lack of spontaneity towards cooperation
3. Lack of fund
4. Lack of loyalty
5. Absence of lonely service
6. Lack of efficiency management
7. Political interference and public apathy
8. Lack of specific and stable policy and central level coordination
9. Absence of good process of loan disbursement and payment

This study emphasized on the role of Sajha Society for rural development in Nepal. The financial resources, utilization of funds and marketing activities reveal that there is a great need for revitalization in order to make the movement strong and stable.

Subedi conducted the research in 1991 on the Accounting Information System of Cooperative of Nepal. (Subedi, 1991). The study aimed to study the use and procedure of keeping accounts, its defects and difficulties in Nepalese cooperatives and the study has also given some suggestions against such problems.

He has conducted that a huge amount of economic resources has been mobilized through 881 cooperatives. Sources of fund in these cooperatives have remained loan from Agricultural Development Bank, Saving and deposits of the members and grants and subsidies from the government. But most of them were not in a position to provide goods and services to the people. And most of were under the unbearable and almost incapable loads of bank loan were always looking for the grants from the government but the government has not come forward for assistance.

He has also conducted that about 70 percent of the societies are running in loss. Apart from such factors as very little commission of AIC and NFC, misleading directions mismanagement, lack of support from government, unnecessary political pressure, lack of relevant accurate, timely understandable and cost affected. AIS of the societies themselves are responsible caused of the failure of cooperative institution of Nepal.

The study has suggested that remove the various problem of the cooperative movement of the country and for paying the due attention to the developmental activities and control the existing irregularities and weaknesses by establishing a sound accounting information system. The study commented that the major problems faced by the cooperative are lack of systematic, scientific complete and comprehensive system of collecting processing storing producing and communicating the accounting data and information. The concerned interested parties and general public does not properly identify such various problems of the cooperatives of our country yet.

Prem Sharma has conducted the research on the Financial Performance Analysis of Nepalese Cooperative Societies with reference to Bishal Cooperative Society Limited, Pokhara. (Sharma, 2008). The objective of this study was to analyze the financial performance including rate of return, financial and liquid investment and growth in loan portfolio.

He has concluded that the savings of the Cooperative was used satisfactorily. The loan to total assets ratio is in increasing term and it has also maintained the liquidity investment within the standard. It has managed to maintain net loan income to average loan portfolio ratio with the standard of PEARLS. It covers the cost of funds, cost of administration and operation, the cost of provisions and the cost of contribution with respect to its amount of investment in the loan portfolio. The growth in loans is harmony with the increase in total assets but not satisfactory as per the standard of PEARLS. The growth in liquid investment is near about the standard. He has suggested to readapt the policies and standards by competitive and worthwhile interest rates, amount to be granted, terms and purpose, leverage and security to increase the loan portfolio. It has also focus in the saving deposits offering an attractive with competitive interest rate and should build up its creditability to attract more depositors.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter deals with the research design, justification for the selected study unit, nature and source of data, data collection method, data processing and analysis PEARLS financial tools.

3.1 Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It is the plan structure and strategy on investigations conceived for obtaining answers to research questions and to control variances. To achieve the objective of this study, descriptive and analytical research designs have been used. To evaluate financial performance, the PEARLS monitoring is taken as a primary analysis tool for this study.

3.2 Source of Data

This study is conducted primarily on the basis of secondary data. The data relating to the investment, deposit, loan and advance and profit are directly obtained from the balance sheet and profit and loss account of annual closing documents. In some cases, the primary data are also taken for the accuracy of analysis. Supplementary data and information are collected from number of institutions and regulating authorities like Nepal Rastra Bank, Department of Cooperatives, Ministry of Finance, Budget Speech of different fiscal years, economic survey and National Planning Commission, etc.

According to the need and objectives, all the data are compiled, processed and tabulated in time series. In order to judge the reliability, they were compiled with the annual closing reports. Formal and informal talks were held with the manager and other staffs of different cooperatives to obtain the additional information of the related problem. Similarly, the supporting data and information are collected from the periodicals,

economic journals, economic magazines and other published and unpublished reports and documents form concerning sources.

3.3 Data Collection Process

As explained above, the main sources of secondary data are the yearly closing reports. In addition to that some of the relevant data are also collected from economic survey of Nepal Rastra Bank. A set of data collection template were also being developed for further related information collection process. Apart form them, extensive discussions were carried out with the managers and other staffs of different cooperatives.

3.4 Methods of Analysis

To achieve the objectives of the study, various financial and accounting tools have been used in this study. The analysis of data will be done according to pattern of data available. Different statistical tools including mean, standard deviation, coefficient of variation, etc have been used for the analysis of data. Apart from the available tools and resources, PEARLS monitoring system is primarily adopted in this study. Similarly some strong accounting tools such as ratio analysis have been used for financial analysis.

The various calculated results obtained through mentioned tools are tabulated under different headings. Then they are compared with each other to interpret the results.

3.4.1. The PEARLS Monitoring System

3.4.1.1. P=Protection

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

P1 Allowance for Loan Losses / Allowance Required for Loans Delinquent >Months

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

Accounts: a = Allowance for Loan Losses (Balance Sheet)

b = Percentage of allowances required for covering loans that are more than 12 months delinquent. WOCCU suggests use 100%, but a different percentage may be used in countries where local laws or regulations are different

c = Loan Balance of all loans delinquent more than 12 months

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

Goal: 100%

P2 Net Allowance for Loan Losses / Allowances Required for Loans Delinquent less than 12 months

Purpose: To measure the adequacy of the allowances for loan losses after deducting the allowances used to cover loan that are more than 12 months delinquent.

Accounts: a = Total Allowance for Loan Losses.

b = Allowances used for covering Loans that are more than 12 months delinquent

c = Percentage of allowances required for covering loans that are 1-12 months delinquent. WOCCU suggests using 35%, but a different percentage may be used in countries where local law or regulations are different.

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

e = Percentage of allowances required for non-delinquent loans. While WOCCU does not require may specific allowance for this category, some countries may require a specific percentage that is mandated by local law or regulations.

f = Total Balance of all Non-Delinquent Loans.

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

Goal: 100% of allowances required for all loans delinquent less than 12 months and for non-delinquent loans.

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

d = Gross loan portfolio (excluding allowances) as of Last year-end

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

Goal: Minimize

P5 Accumulated Recovery 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: To 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 Saving

h = Total Shares

Formula: $\frac{[(a-b)-(c+035(d)+e+f-g)]}{g+h}$

Goal: >100%

Note: The collected data does not have any written off records even if the delinquent loan crosses beyond 12 months. Therefore the method P3, P4 and P5 will not be used.

3.4.1.2. 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 investment 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 Investment / Total Assets

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

Account: a = Total Liquid Investment

b = Total Assets

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

Goal: Maximum 20%

E3 Financial Investment / Total Assets

Purpose: To measure the percentage of total assets investment 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 Saving Deposits / Total Assets

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

Accounts: a = Total Saving 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 Assets

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

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 Capital / 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 Institutional Capital

Purpose: To measure the real level of institutional capital, after adjusting the allowances for risk assets to meet the standards of P1 and 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: $\frac{[(a+b)-(c+035(d)+e)]}{f}$

Goal: Same as E8

Note: Because of the non policies for allowances of risk assets and no more expenditure regularly done on the allocated funds in transitory capitals in

above cooperatives, all the headings in transitory capital are also considered as institutional capital. Therefore, method E9 will not be used.

Institutional Capital is defined as all legal and non-distributable reserves, capital donations and the portion of the current year's surplus that will be retained as legal or non-distributable reserves. These reserves are not expended and no member may present and individual claim.

3.4.1.3. A = Assets 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 non-earning assets.

A1 Total Loan Delinquency / Total Loan Portfolio

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

Accounts: a = Sum of all Delinquent Loan Balance (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:

- Cash on hand
- Non-interest bearing monetary checking accounts

- Accounts receivable
- Assets in liquidation
- Fixed assets (Land, Building, equipment, etc)
- 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 those 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 200%

3.4.1.4. R = Rates of Return and 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.

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 deposit, etc)

Accounts: a = Total Liquid Investment Income during year

b = Total Liquid Investments as of Currents year-end

c = Total Liquid Investments as of Last year end

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

Goal: Highest rates possible without undue risk.

R3 Financial Investment Income / Average Financial Investments

Purpose: To measure the yield on all long term investments (i.e. Fixed Deposit, 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: $$\frac{a}{\left\{\frac{(b+c)}{2}\right\}}$$

Goal: Highest rates possible without undue risk

R4 Non-Financial Investment Income / Average Non- Financial Investments

Purpose: To measure the yield on all non-financial investment which do not belong to categories R1-R2. Typically, this is income from supermarkets, pharmacies, rental properties and residential housing developments.

Accounts: a = Total Non-Financial Investment Income

b = Total Non-Financial Investment as of Current year end

c = Total Non-Financial Investment as of Last year end

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

Goal: Rate greater than R1

R5 Financial Cost: Saving Deposits / Average Saving Deposits

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

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 Saving Deposit as of Last year end

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

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

R6 Financial Cost: Borrowing 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 Share / 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 Saving 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: $$\frac{(a+b...+e)-(f+g+h)}{\left\{\frac{(i+j)}{2}\right\}}$$

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. The 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 Provision 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 uncollectable account 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 Expenses 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: Enough to attain the goal of E9

3.4.1.5. 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} / Saving 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 Saving Deposits

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

Goal: Minimum 15%

L2 Liquidity Reserves / Saving 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 Assets)

c = Total Saving Deposits

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

Goal: 10%

L3 Non-Earning Liquid Assets / Total Assets

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

Accounts: a = Total Liquid Non-Earning Assets

b = Total Assets

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

Goal: <1%

3.4.1.6. 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: $\left(\frac{a}{b}\right)-1*100$

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

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

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

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 Saving Deposits

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

Accounts: a = Total Current Savings Deposits

b = Total Savings Deposits as of Last year end

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

Goal: To increase the percentage of Total Saving Deposits (E5), S5 must be greater than S11.

To maintain the percentage of Total Saving Deposits (E5), S5 must be equal to S11.

To decrease the percentage of Total Saving 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 the Last year end

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

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 the Last year end

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

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

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

Goal: To increase the percentage of Net Institutional Capital (E6), S6 must be greater than S11.

To maintain the percentage of Net Institutional Capital (E6), S6 must be equal to S11.

To decrease the percentage of Net Institutional Capital (E6), S6 must be less than S11.

S10 Growth in Membership

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

Accounts: a = Current Number of Members (Non-Bookkeeping Control)

b = Number of Members as of Last year end (Non-Bookkeeping Control)

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

Goal: >12%

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

Goal: Greater than the inflation rate.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

This chapter deals with the presentation and analysis of data collected from the different sources. As stated in the theoretical prescription, the financial performance analysis of the cooperatives are concerned in the six components, PEARLS: Protection, Effective financial structure, Assets quality, Rate of returns and costs, Liquidity and Sign of growth The data collected from different annual reports and office reports of cooperatives have been analyzed with the application of PEARLS. The major findings thereby have been emanated as derived from analysis of data.

4.1 PEARLS Presentation and Analysis

4.1.1. Protection (P)

Protection is measured by comparing the provision for loan losses beside the amount of delinquent loans. It is deemed adequate if an institution has sufficient provisions to cover 100 percent of all loans delinquent for more than 1 year. Institution should adequately provide for their loan losses as they frequently request the authority to charge off loans prior to the expiry of the period.

Generally, the loan receiver in prescribed time schedule should make protection against the loan loss that occurs due to un-repayment of principal loan amount. The provision for loan losses is a non-cash tax-deductible expense that is used to defend to any credit risk that falls due to failure in the repayment of loan and interest. It is the current period's allocation to the allowance for loan losses listed on the balance sheet. The item represents the institution prediction of loan at risk of default for the period.

As stated in research method, only the tools P1. And P2 has been calculated and analyzed under protection. The relevant data related data related to write-off delinquency loan, annual and accumulated loan write-off, accumulated loan recoveries and solvency were not available to calculated and analyze the P3, P4, P5 and P6.

4.1.1.1. Allowances for Loan Losses to Allowance Required for Loans Delinquent > 12 Months (P1)

This ratio measures the adequacy of the allowances for loan losses while compared to the allowances required for covering all loans delinquent more than 12 months.

Table 4.1 Allowances for Loan Losses to Allowance Required for Loans Delinquent > 12 Months

Year	P1					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	NA	-	332912.5	-	527242.5	-
2062	NA	-	524363	157.51	102164.5	19.38
2063	NA	-	702997	211.17	792158.5	150.25
2064	20000	-	721383	216.69	544059.6	103.19
2065	43435	217.17	1221383	366.88	113607.8	21.55
Mean	12687		700607.7		4115846.58	
S.D.	17215.1		295941.27		268403.81	
A.G.R	23.43		32.7		96.86	
C.V.	135.69		42.24		6.52	

Source: Annual Report of Cooperatives

The above data shows that the ratio of allowance for loan losses to allowances required for loan delinquent > 12 of Padmavati are in increasing trend. The ratio of Scope is in fluctuation. There is no loan loss provision in Manasalu for previous three years. But it has been increased more than 2 times greater than that of previous one.

4.1.1.2. Allowances for Loan Losses to Allowance Required for Loans Delinquent > 12 Months (P1)

This ratio measures the adequacy of the allowances for loan losses while compared to the allowances required for covering all loans delinquent less than 12 months.

Table 4.2 Allowances for Loan Losses to Allowance Required for Loans Delinquent < 12 Months

Year	P2					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	NA	-	332912.5	-	527242.5	-
2062	NA	-	524363	157.51	102164.5	19.38
2063	NA	-	702997	211.17	792158.5	150.25
2064	20000	-	721383	216.69	544059.6	103.19
2065	43435	217.17	1221383	366.88	113607.8	21.55
Mean	12687		700607.7		4115846.58	
S.D.	17215.1		295941.27		268403.81	
A.G.R	23.43		32.7		96.86	
C.V.	135.69		42.24		6.52	

Source: Annual Report of Cooperatives

The above data shows that the ratio of allowance for loan losses to allowances required for loan delinquent <12 of Padmavati are in increasing trend. The ratio of Scope is in fluctuation. There is no loan loss provision in Manasalu for previous three years. But it has been increased more than 2 times greater than that of previous one.

4.1.2 Effective Financial Structure (E)

Financial structure depicts on the effective management of sources and used of funds of MFIs. It is the single most important in determining growth potential, earnings capacity and overall financial strength of the institution. MFIs are encouraged to maximize earning assets as the means to achieve sufficient earnings. As stated in research methodology, the tools E1, E2, E3, E4, E5, E6, E7 and E8 have been calculated and analyzed under the Effective Financial Structure. The relevant data related to net institutional capital is not available to calculate and analyze E9.

4.1.2.1. Net Loans to Total Assets (E1)

This ratio measure the percentage of total assets invested in the loan portfolio. The net loan is loan after the deduction of total allowance for loan losses from the gross loan portfolio of the institution. According to CU model, setting different interest rates on loans with respect to its purpose, amount and terms and condition is of crucial need that institutions should strongly stand for. The income to institution is largely dependent upon the level of loans transaction and its quality. In the case of delinquency level, the institution has to allocate the adequate allowances for loan losses.

Table 4.3 Net Loans to Total Assets

Year	E1						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	70-80	68.08	-	74.01	-	79.78	-
2062	70-80	74.58	109.6	76.88	103.9	71.2	89.25
2063	70-80	76.42	112.3	76.52	103.4	70.84	88.79
2064	70-80	70.74	103.9	76.85	103.8	84.29	105.7
2065	70-80	75.01	110.2	82.57	111.6	80.72	101.2
Mean		72.97		77.34		77.34	
S.D.		3.08		2.81		5.4	
A.G.R.		2.12		2.26		0.7	
C.V.		4.22		3.63		6.98	

Source: Annual Report of Cooperatives.

In the above figure, the data shows that the ratio of net loan to total asses are in fluctuation trend. The mean of Manasalu, Padmavati and Scope are 72.97, 77.34 and 77.34. It shows that, in an average, the ratios are in PEARLS standard. In case of Manasalu, the standard has not been matched in the FY 2061. Padmavati seems to be more effective than others.

4.1.2.2. Liquid Investment to Total Assets (E2)

It measures the percentage of total assets invested in short-term investments. Excess liquidity is discouraged because the margins on liquid investments are significantly lower than those earned on the loan portfolio. In the event of high investments in this category, it invariably affects the gross spread and indirectly affects the loan portfolio and the institutional capital. The level of investments in short-term should be in relation to member's withdrawal.

Table 4.4 Liquid Investment to Total Assets

Year	E2						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	Max. 20	8.02	-	18.15	-	11.74	-
2062	Max. 20	9.49	118.66	16.63	91.63	18.16	154.59
2063	Max. 20	7.46	93.02	16.53	91.07	12.94	110.16
2064	Max. 20	11.95	149	12.3	67.77	6.65	56.61
2065	Max. 20	9.9	123.44	13.38	73.72	6.72	57.21
Mean		9.36		15.4		11.24	
S.D.		1.58		2.19		4.3	
A.G.R.		7.99		-5.17		-4.34	
C.V.		16.88		14.22		38.26	

Source: Annual Report of Cooperatives.

The above data shows that the ratio of liquid investment to total assets of the cooperatives. The data of Manasalu and Padmavati are in fluctuation trend. The data of Scope is in decreasing trend. The mean ratios of the cooperative are as per the PEARLS standard. The data shows that the investment made in liquid is higher in Padmavati than that of other two ratios.

4.1.2.3. Financial Investment to Total Assets (E3)

It measures the percentage of total financial invested in shares and bank balance. It measures the percentage of total assets invested in long-term investments.

Table 4.5 Financial Investment to Total Assets

Year	E3						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	Max 10	N/A		2.53		1.77	
2062	Max 10	N/A		2.01	79.45	4.59	259.32
2063	Max 10	0.13		2.14	84.58	12.12	684.75
2064	Max 10	0.23	176.92	6.6	260.87	5.68	320.91
2065	Max 10	0.153	117.69	3.21	126.88	9.87	557.63
Mean		0.1026		3.3		6.81	
S.D.		0.09		1.7		3.72	
A.G.R.		8.69		28.59		68.8	
C.V.		87.72		51.52		54.53	

Source: Annual Report of Cooperatives.

The above data shows the ratio of financial investment to total assets of the cooperatives. The data of Padmavati and Scope are in fluctuation trend. The data of Manasalu is in decreasing trend. The data of Manasalu of previously two years is not available. The mean ratios of the cooperative are as per the PEARLS standard. The data shows that the investment made in financial is higher in Scope than that of other two ratios.

4.1.2.4. Non-Financial Investment to Total Assets (E4)

It measures the percentage of total non-financial invested of cooperatives. It measures the percentage of total assets invested in fixed assets and other assets.

Table 4.6 Non-Financial Investment to Total Assets

Year	E4						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	0	12.03		5.3		6.71	
2062	0	15.93	132.42	4.49	84.72	6.13	91.36
2063	0	13.92	115.71	4.82	90.94	4.09	60.95
2064	0	10.94	90.94	4.26	80.38	3.39	50.52
2065	0	9.5	78.97	3.65	68.87	2.69	40.09
Mean		12.46		4.5		4.5	
S.D.		2.25		0.55		1.6	
A.G.R.		-2.95		-6.77		-15.94	
C.V.		18.06		12.22		35.56	

Source: Annual Report of Cooperatives.

The above data shows the ratio of non-financial investment to total assets of the cooperatives. The data of Padmavati and Scope are in fluctuation trend. The data of Manasalu is in decreasing trend. The mean ratios of the cooperative are not as per the PEARLS standard. The data shows that the investment made in non-financial is higher in Manasalu than that of other two ratios.

4.1.2.5. Saving Deposit to Total Assets (E5)

It measures the percentage of total assets financed by savings deposits. The heavy deposit savings indicate that the institution has developed effective marketing programs and achieved financial independence. Saving deposit is affected by the interest rates of the institution offers to the depositors. According to CU model, setting saving rates within the market average is a mandatory. But, attempting to pay more than the market rate may hinder a problem. Such interest charges should be below the loan rates charged.

Table 4.7 Saving Deposit to Total Assets

Year	E5						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	70-80	80.59	-	87.08	-	84.94	-
2062	70-80	87.15	108.14	86.54	99.38	83.12	97.86
2063	70-80	82.45	102.31	85.38	98.05	85.77	100.39
2064	70-80	83.15	103.18	82.78	95.06	83.43	98.22
2065	70-80	76.47	94.89	84.36	96.88	82.38	96.99
Mean		81.96		85.23		83.83	
S.D.		3.48		1.54		11.02	
A.G.R.		-0.089		-0.62		-0.59	
C.V.		4.25		1.81		13.15	

Source: Annual Report of Cooperatives.

The above data shows the ratio of saving deposit to total assets of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean ratios of the cooperative are not as per the PEARLS standard. The mean data of cooperative must between 70-80 percentages. But the data of all three cooperatives are more than standard. Manasalu seems to be near to standard than that of other two cooperatives.

4.1.2.6. Borrowed Funds to Total Assets (E6)

It measures the percentage of total assets financed by borrowed funds. Borrowed fund refers to the external borrowing i.e. debt obligation with other financial institutions outside of the credit union.

Table 4.8 Borrowed Funds to Total Assets

Year	E6						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	Max. 5	0		0		0	
2062	Max. 5	0		0		0	
2063	Max. 5	0		0		0	
2064	Max. 5	0		0		6.21	
2065	Max. 5	0		0		1.15	18.52
Mean						1.47	
S.D.						2.41	
A.G.R.						-16.3	
C.V.						163.95	

Source: Annual Report of Cooperatives.

The above data shows the ratio of borrowed funds to total assets of the cooperatives. No borrowing has been made by Manasalu and Padmavati within the 5 years period. At the 4th year of analysis, Scope has borrowed some amount. The average mean of borrowed amount as per the standard of PEARLS.

4.1.2.7. Member Share Capital to Total Assets (E7)

It measures the percentage of total assets financed by member share capital. The more share capital indicates that the institution has strong with its paid-up capital.

Table 4.9 Member Share Capital to Total Assets

Year	E7						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	Max 20	7.25		5.5		7.21	
2062	Max 20	4.22	58.21	6.03	109.64	8.39	116.37
2063	Max 20	9.42	129.93	7.12	129.45	6.74	93.48
2064	Max 20	7.69	106.07	9.59	174.36	5.75	79.75
2065	Max 20	7.44	102.62	8.97	163.09	6.14	85.16
Mean		7.15		7.44		6.85	
S.D.		1.87		1.6		0.92	
A.G.R.		11.96		11.19		-2.24	
C.V.		26.15		21.51		13.43	

Source: Annual Report of Cooperatives.

The above data shows the ratio of member share capital to total assets of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean ratios of the entire cooperative are as per the PEARLS standard. However, the member share of Padmavati is higher than others.

4.1.2.8. Institutional Capital to Total Assets (E8)

It measures the percentage of total assets financed by institutional capital. Since institutional capital has no explicit interest cost, it will generate 100 percent return to the institutions investing to the productive assets. According to CU, focus on epidemic is a crucial that institution should pay observe in its operation. Institution need to strengthen its institutional capital so that it can withstand losses associated with epidemic.

Table 4.10 Institutional Capital to Total Assets

Year	E8						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	Min. 10	9.84	-	3.09	-	5.9	-
2062	Min. 10	6.89	70.02	4.16	134.63	5.44	92.2
2063	Min. 10	12.68	128.86	4.21	136.25	5.99	101.53
2064	Min. 10	10.02	101.83	4.57	147.9	5.52	93.56
2065	Min. 10	10.2	103.66	3.8	122.98	4.09	69.32
Mean		9.93		3.97		5.39	
S.D.		1.84		0.5		0.68	
A.G.R.		6.97		5.51		-5.28	
C.V.		18.53		12.59		12.61	

Source: Annual Report of Cooperatives.

The above data shows the ratio of institutional capital to total assets of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean ratios of the cooperative are not as per the PEARLS standard. But the data of all three cooperatives are less than standard. Manasalu seems to be near to standard than that of other two cooperatives.

4.1.3. Assets Quality (A)

Assets Quality indicators measure the impact of assets which do not generate income such as loan delinquency non-earning assets. The delinquency ratio is the most important measurement of institutional weakness. Delinquency is measured using the portfolio at risk method, which defines as delinquent the entire outstanding balance of any loan affected by amount overdue. The higher ratio of non-earning assets indicate the most difficult to generate sufficient earnings.

4.1.3.1. Total Loan Delinquency to Total Loan Portfolio (A1)

It measures the total percentage of delinquency in the loan portfolio, using the criterion of outstanding delinquent loan balances instead of accumulated delinquent loan payments. The poor credit analysis put the institution into a serious problem in collection of loans on timely fashion. The institution in the event of the loan delinquency should surcharge of certain percent a month to mitigate the problem that might arise in its operation.

Table 4.11 Total Loan Delinquency to Total Loan Portfolio

Year	A1						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	≤ 5	0		0		1.54	-
2062	≤ 5	0		0		4.24	275.32
2063	≤ 5	0		0		5.16	335.06
2064	≤ 5	0		0		4.01	260.39
2065	≤ 5	0		0		3.05	198.05
Mean						3.6	
S.D.						1.23	
A.G.R.						30.16	
C.V.						34.17	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total loan delinquency to total loan portfolio of the cooperatives. There is no loan delinquency against loan portfolio in Manasalu and Padmavati within the 5 years period. Scope has loan delinquency and the mean ratio is as per the PEARLS standard. Though Scope has loan delinquency it's satisfactory.

4.1.3.2. Non-Earning Assets to Total Assets (A2)

It measures the percentage of the total assets, which do not produce income. Monitoring the ratio of non-earning assets to total assets comes at hand and ensured that savings deposits or member shares do not finance these non-earning assets. The non-earning assets includes cash, fixed assets, advance and prepaid expenses, dues and other assets.

Table 4.12 Non-Earning Assets to Total Assets

Year	A2						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	≤ 5	22.81	-	8.04	-	9.25	-
2062	≤ 5	17.63	77.29	5.03	62.56	8.85	95.68
2063	≤ 5	15.17	66.51	5.48	68.16	6.03	65.19
2064	≤ 5	15.38	67.43	4.98	61.94	5.18	56
2065	≤ 5	12.57	55.11	4.47	55.60	4.77	51.57
Mean		16.71		5.6		6.82	
S.D.		3.44		1.26		1.87	
A.G.R.		-10.71		-9.57		-11.64	
C.V.		20.59		22.5		27.42	

Source: Annual Report of Cooperatives.

The above data shows the ratio of non-earning assets to total assets of the cooperatives. The data of Manasalu & Padmavati are in fluctuation trend. The data of Scope is in decreasing trend. The mean ratios of the entire cooperative are not as per the PEARLS standard. Padmavati and Scope tries to maintain the PEARLS standard. However, Manasalu shows that the institution has high amount of non-earning assets.

4.1.3.2. Net Zero Funds to Total Non-Earning Assets (A3)

It measures the percentage of non-earning assets with zero cost funds. 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 show deterioration of assets quality and vice versa. It should not come down below 200 percent of total non-earning assets of cooperative.

Table 4.13 Net Zero Funds to Total Non-Earning Assets

Year	A3						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	≥ 200	87.17	-	83.12	-	68.36	-
2062	≥ 200	72.9	83.63	147.78	177.79	72.33	105.81
2063	≥ 200	115.68	132.71	136.87	164.67	127.75	186.88
2064	≥ 200	113.02	129.65	153.47	184.24	152.88	223.64
2065	≥ 200	111.92	128.39	149.23	179.54	161.31	235.97
Mean		100.13		134.1		116.54	
S.D.		17.06		26.07		39.31	
A.G.R.		7.81		15.95		21.52	
C.V.		17.04		19.44		33.73	

Source: Annual Report of Cooperatives.

The above data shows the ratio of net zero funds to total non-earning assets of the cooperatives. The data of Manasalu & Padmavati are in fluctuation trend. The data of Scope is in increasing trend. The mean ratios of the entire cooperative are not as per the PEARLS standard.

4.1.4 Rate of Return and Cost (R)

Earning and costs are determined by dividing all interest income, delinquent interest penalties and commission from lending operations by the total loan portfolio to give the return on loans. This is compared to the return on financial investments, income from bank savings accounts and liquidity reserves divided by the amount invested in those

areas. This indicator measures the average income yield for each of the most productive assets. In addition, they measure the average yield for each of the most important liability and capital account. The indicators of returns and costs monitor the return earned on each type of assets and costs on each type of liabilities. Under rate of return and costs, the tools R1, R2, R5, R6, R7, R8 and R9 have been calculated and analyzed. The relevant data related to financial, non-financial income and external credit, provision for loan losses, non-recurring income or expenses and net income were not available to calculate and analyze.

4.1.4.1. Net Loan Income to Average Loan Portfolio (R1)

It measures the yield on the loan portfolio during last year. The purpose of this ratio is the loan prices to be set at entrepreneurial rates. The entrepreneurial rate needs to cover the cost of funds, the cost of operations and administration, the cost of provisions and the cost of contributions to increase capital at least 10 percent. The loan income also includes commission, fees and delinquent interest penalties. When institution falls in a high loan delinquency, it encounters a problem in earning that cover all the costs.

Table 4.14 Net Loan Income to Average Loan Portfolio

Year	R1					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	19.57	-	13.47	-	14.57	-
2062	18.69	95.5	12.64	93.84	13.21	90.67
2063	16.28	83.19	12.34	91.61	13.08	89.77
2064	23.81	121.67	11.53	85.6	11.97	82.16
2065	16.21	82.83	10.32	76.61	11.25	77.21
Mean	18.91		12.06		12.82	
S.D.	2.78		1.07		1.14	
A.G.R.	-0.61		-5.12		-4.96	
C.V.	14.71		8.88		8.89	

Source: Annual Report of Cooperatives.

The above data shows the ratio of net loan income to average loan portfolio of the cooperatives. The data of Manasalu is in fluctuation trend. Though the amount of cooperative are quite high, the data of Scope and Padmavati is in decreasing trend.

4.1.4.2. Total Liquid Investment Income to Average Liquid Investment (R2)

It measures the yield on short-term investment i.e. cash transaction. The ratio depends upon market rate.

Table 4.15 Total Liquid Investment Income to Average Liquid Investment

Year	R2					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	0	-	3.64	-	3.47	-
2062	0	-	4.93	135.44	2.24	64.55
2063	0	-	6.76	185.71	3.01	86.74
2064	0	-	5.47	150.27	4.7	135.45
2065	0	-	7.43	204.12	12.75	367.44
Mean	-		5.65		5.23	
S.D.	-		1.34		3.84	
A.G.R.	-		17.86		45.27	
C.V.	-		23.72		73.43	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total liquid investment income to average liquid investment of the cooperatives. The data related to total liquid investment income in Manasalu within the 5 years period is not clear. The data of Padmavati is in fluctuation trend. The data of Scope is in increasing trend. The ratio is dependent upon the market rate. Comparing the mean data of Padmavati and Scope, Padmavati is higher than Scope.

4.1.4.3. Total Interest Cost on Saving Deposits to Average Saving Deposits (R5)

It measures the yield (cost) of saving deposits. The total interest and premium paid on saving deposits and taxes paid by MFI on saving deposits interest are included in the cost. The ratio is most affected by the quality of assets and the overall income generated by the institution. Quality assets yield high earnings. Most of the times, institutions can offer a competitive interest rate to the deposits in the financial market.

Table 4.16 Total Interest Cost on Saving Deposits to Average Savings Deposits

Year	R5					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	2.6	-	6.27	-	7.36	-
2062	9.6	369.23	3.58	57.1	6.43	87.36
2063	7.39	284.23	5.43	86.6	5.78	78.53
2064	8.59	330.38	8.76	139.71	5.75	78.13
2065	7.18	276.15	5.18	82.62	6.33	86.01
Mean	7.07		5.84		6.33	
S.D.	2.4		1.7		0.58	
A.G.R.	49.21		5.85		-2.64	
C.V.	33.94		29.11		9.16	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total interest cost on saving deposits to average saving deposits of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The PEARLS standard suggests maintaining the market rate above inflation rate so as to increase the savings of member client. Manasalu shows that the institution has high amount of total interest cost than remaining two.

4.1.4.4. Total Cost of Borrowed Fund to Average Borrowed Fund (R6)

It measures the yield (cost) of total borrowing from the external source. The borrowing is made to maintain internal balance of cash and investment transaction. The borrowing increase the total cost expenses due to interest rate which is quite higher.

Table 4.17 Total Cost of Borrowed Fund to Average Borrowed Fund

Year	R6						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	≤R5	0	-	0	-	0	-
2062	≤R5	0	-	0	-	0	-
2063	≤R5	0	-	0	-	0	-
2064	≤R5	0	-	0	-	6.21	-
2065	≤R5	0	-	0	-	1.15	18.52
Mean		-		-		1.47	
S.D.		-		-		2.41	
A.G.R.		-		-		-16.3	
C.V.		-		-		163.95	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total cost of borrowed fund to average borrowed fund of the cooperatives. No external borrowing has been made by Manasalu and Padmavati. Scope has made some borrowing in 4^{th} and 5^{th} year. The ratio is as per the PEARLS std.

4.1.4.5. Total Interest (Dividend) Cost on Share to Average Member Shares (R7)

It measures the yield (cost) of member shares. The total dividend and premium paid on shares are included in the yield (cost). This ratio is most affected by the quality of assets and the overall income generated by the institutions. Quality assets yield high earnings.

Table 4.18 Total Interest (Dividend) Cost on Share to Average Member Shares

Year	R7						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	≥ R5	6.04	-	10	-	10	-
2062	≥ R5	9.98	165.23	15	150	10	10
2063	≥ R5	3.72	61.59	12	120	11	110
2064	≥ R5	2.11	34.93	15	150	12	120
2065	≥ R5	3.53	58.44	12	120	0	0
Mean		5.076		12.8		8.6	
S.D.		25.76		1.94		4.36	
A.G.R.		5.31		7		-16.18	
C.V.		54.37		15.16		50.70	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total interest cost on share to average member share of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean data of Padmavati and Scope are as per the standard of PEARLS. The mean data of Manasalu is less than standard.

4.1.4.6. Total Gross Margin to Average Total Assets (R8)

It measures the gross income margin generated, expressed as yield on all assets before subtracting operating expenses, provisions for loan losses and other extraordinary items. This indicator provides the institutions in yield of an adequate income to cover all operating expenses and allowances for loan losses and provide for adequate increases in institutional capital. It is affected by income from loan, level of delinquency loan, non-earning assets, liquidity and the financial costs. Adequate support of liquidity, a higher delinquency loans, non-earning assets and heavy incurrence of financial costs hold back the earnings, which determines the sustainability of institution. Minimizing the operating

expenses and augmenting the earning level from both recurring the non-recurring activities significantly give rise to increase this ratio.

Table 4.19 Total Gross Margin to Average Total Assets

Year	R8					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	12.75	-	4.58	-	5.94	-
2062	6.16	48.31	3.914	85.37	3.87	65.15
2063	7.25	56.86	4.04	88.21	3.89	65.49
2064	11.31	88.71	2.7	58.95	4.03	67.85
2065	7.37	57.8	2.83	61.79	3.38	56.9
Mean	8.97		3.61		4.22	
S.D.	2.58		0.73		0.87	
A.G.R.	-2.57		-7.93		-9.37	
C.V.	28.76		20.22		20.62	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total gross margin to average total assets of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. Higher the margin, the more efficient is the cooperative. Here, Manasalu is seems to be efficient than remaining two.

4.1.4.7. Total Operating Expenses to Average Total Assets (R9)

It measures the cost associated with the management of institution overall assets. This cost is measured as a percentage of total assets and indicates the degree of operational efficiency or inefficiency. These costs include the both office management cost and staff salary. For survival of institution, a careful review in administrative structure is dire to determine the need for each position and to readjust salaries. Operating expenses should not be incurred over the allocation of budget. Most of the times, institutions do not use budget as a tool for the authorization of expenses. A sound resource only ensures the

institution that it can spend but with a thorough analysis in the allocation of resources for expenses.

Table 4.20 Total Operating Expenses to Average Total Assets

Year	R9						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	≤10	17.25	-	4.24	-	3.29	-
2062	≤10	12.01	69.62	2.95	68.58	3.71	112.77
2063	≤10	7	40.58	3.12	73.58	3	91.19
2064	≤10	12.67	73.45	3.16	74.52	3.4	103.34
2065	≤10	8.17	47.36	3.41	80.42	3.13	94.15
Mean		11.42		3.38		3.31	
S.D.		3.63		0.46		0.24	
A.G.R.		-5.32		-3.09		-0.2	
C.V.		31.79		13.61		7.25	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total operating expenses to average total assets of the cooperatives. The data of Manasalu and Scope are in fluctuation trend. The data of Padmavati is in increasing trend. The mean data of Padmavati and Scope are as per the standard of PEARLS. The mean data of Manasalu is more than standard. It will be risky in case of high expenses.

4.1.5. Liquidity (L)

Liquidity indicators measures if an institution is administering its cash to meet deposit withdrawal request and liquidity reserve requirements while, at the same time minimizing the amount of idle funds that earn no interest income. Depositors' confidence will be destroyed if an institution is not able to serve client withdrawals. The "ideal" target is to maintain an average of 15 percent of deposit saving in liquid account, after paying all

immediate obligations less than 30 days. The idle liquid funds ratio should be as close to zero percent as possible. Under liquidity, the tools L1 and L2 have been calculated.

4.1.5.1. Total Liquidity to Average Saving Deposits (L1)

It measures the adequacy of the liquid cash reserve to satisfy deposit withdrawal requests after paying all immediate obligations. It includes total liquidity assets investment and total non earning liquidity assets less total short term payable.

Table 4.21 Total Liquidity to Average Saving Deposits

Year	L1						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	≥15	4.86	-	16.73	-	10.65	-
2062	≥15	15.489	318.52	17.72	105.92	23.72	147.79
2063	≥15	12.95	266.46	17.1	102.21	25.89	161.31
2064	≥15	17.27	355.35	12.21	72.98	8.52	53.08
2065	≥15	9.59	197.33	15.62	93.37	11.51	71.71
Mean		12.03		15.88		17.14	
S.D.		4.42		1.96		6.74	
A.G.R.		38.21		0.35		4.99	
C.V.		36.74		12.34		39.32	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total liquidity to average saving deposits of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean data of Padmavati and Scope are as per the standard of PEARLS. The mean data of Manasalu is less than standard. In case of less liquidity, there may be problem to meet deposits withdrawal request. However, the excess portion of liquidity leads to institution negativity in earning more interest.

4.1.5.2. Liquidity Reserve to Total Saving Deposits (L2)

It measures he compliance with obligatory of CU or other liquidity reserve deposit requirements. An excess support of liquidity reserves encumbers institution from generating income. As the interest margin on depository institutions or other commercial banks is significantly low than investing them in productive assets, such deposition in liquidity reserves is discouraged to institutions. The heavy portion of liquidity leads to institution negatively in earning and institution needs to assess the level of liquidity to maintain to offset the unexpected demand from member's saving accounts.

Table 4.22 Total Reserve to Total Saving Deposits

Year	L2						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	10	8.2	-	2.73	-	2.85	-
2062	10	9.49	115.73	0.54	19.78	2.82	98.95
2063	10	7.58	92.44	0.67	24.54	0.97	34.04
2064	10	11.95	145.73	0.73	26.74	0.99	34.74
2065	10	9.9	120.73	0.81	29.67	0.91	31.93
Mean		9.42		1.1		1.71	
S.D.		1.52		0.82		0.92	
A.G.R.		7.22		-7.25		-14.53	
C.V.		16.14		74.55		53.80	

Source: Annual Report of Cooperatives.

The above data shows the ratio of total reserve to total saving deposits of the cooperatives. The data of Manasalu and Scope are in fluctuation trend. The data of Padmavati is in increasing trend. The mean data of Padmavati and Scope are less than standard of PEARLS. The mean data of Manasalu is near about standard of PEARLS. Less Reserve always does not mean inefficiency unless it can meet the deposit withdrawal request.

4.1.6. Sign of Growth (S)

Growth is measured by inflation-adjusted real growth, which is the key to long-term viability. By comparing the growth in total assets to other key areas, it is possible to detect changes in the balance sheet structure, which have an impact on earnings. The loan portfolio is the most important and profitable institution's assets. The growth of total assets depends on the growth of savings. Growth of institutional capital, which consists almost entirely of retained surpluses, is the best indicator of profitability within the MFIs. One sign of success for a MFI is sustained growth of institutional capital, usually faster than the growth of total assets. PEARLS, the indicators measure both financial and membership growth. Under sign of growth, the indicators enables balance sheet account comparisons between structure and yield, while simultaneously trying to achieve real growth. Under sign of growth, the tools S1, S2, S5, S6, S7, S8, S10 and S11 have been calculated and analyzed.

4.1.6.1. Growth in Gross Loan (S1)

It measures the growth of loan portfolio year-to-date. The likelihood of portfolio is possible if growth in total loans keeps pace with growth in total assets. It is important to know various investment opportunities for income. Loan portfolio is profitable for institution and emphasis should be set in such areas. The earning from loans and the provision of allowances for loan delinquency greatly affect in the growth in loans. A prompt collection of loan in a specified time schedule helps institution from falling in bracket of loan delinquency. When delinquency do not occur, the earning of institution increases and can further be re-invested in productive assets, which yields income. This ratio is affected by R1 and R10. According to PEARLS standard, if institution needs to increase the percentage of total loans outstanding (E1), the growth in loans (S1) should be greater than growth in total assets (S11).

Table 4.23 Growth in Gross Loan

Year	S1					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	31.81	-	31.28	-	67.76	-
2062	52.11	163.82	31.05	99.26	14.99	22.12
2063	36.03	113.27	30.76	98.34	38.16	56.32
2064	29.84	93.81	26.45	84.56	52.54	77.54
2065	45.54	143.16	37.9	121.16	23.5	34.68
Mean	39.07		31.49		39.39	
S.D.	8.47		3.67		19.12	
A.G.R.	13.68		5.52		11.82	
C.V.	21.68		11.65		48.54	

Source: Annual Report of Cooperatives.

The above data shows the ratio of growth in gross loan of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean data shows that Manasalu and Scope has been growing than Padmavati. But among them all, Manasalu is growing more rapidly. Here the growth of Manasalu and Scope seems to be satisfactory than Padmavati.

4.1.6.2. Growth in Liquid Investment (S2)

It measures the growth of liquid investment year-to-date. Generally, excess investments in the liquid assets are discouraged due to its low earning. A heavy investment in liquid assets impeded the institution from investing in productive assets. According to PEARLS standard, if institution needs to increase the percentage of total loans outstanding (E2), the growth in loans (S2), should be greater than growth in total assets (S11).

Table 4.24 Growth in Liquid Investment

Year	S2					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	72.71	-	147.89	-	246.22	-
2062	56.86	78.2	15.55	10.51	98.77	40.11
2063	17.95	24.69	30.57	20.67	-0.79	-0.32
2064	59.44	81.75	-6.13	-4.27	-34.15	-13.87
2065	30.34	41.73	44.53	30.11	30.4	12.35
Mean	47.46		46.48		68.09	
S.D.	20.17		53.42		99.28	
A.G.R.	18.39		-183.85		774.62	
C.V.	42.50		114.93		145.81	

Source: Annual Report of Cooperatives.

The above data shows the ratio of growth in liquid investment of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean data shows that Manasalu and Scope has been growing than Padmavati. But among them all, Scope is growing more rapidly.

4.1.6.3. Growth in Saving Deposits (S5)

It measures the year-to-date growth of savings deposits. Saving deposits are the cornerstones of institution growth. Its growth largely governs the change in total assets if mobilized properly. The growth of total assets is dependent on the growth of savings. The skill in marketing program will help in accumulating the saving deposits, which affects growth in other key areas. The growth is dependent on E5.

Table 4.25 Growth in Saving Deposits

Year	S5					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	35.54	-	60.67	-	85.98	-
2062	51.75	145.61	25.37	41.82	26.09	30.34
2063	30.72	86.44	29.61	48.81	42.45	49.37
2064	35.6	100.17	22.08	36.39	25.43	29.58
2065	37.16	104.56	35.41	58.36	27.34	31.8
Mean	38.15		34.63		41.46	
S.D.	7.13		13.76		23.14	
A.G.R.	5.05		-1.31		-7.91	
C.V.	18.69		39.74		55.81	

Source: Annual Report of Cooperatives.

The above data shows the ratio of growth in saving deposits of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean data shows that Manasalu and Scope has been growing than Padmavati. But among them all, Scope is growing more rapidly. Since the saving deposits to total assets are about within in the range, the growth in saving deposits is also satisfactory with in standard.

4.1.6.4 Growth in Borrowed Funds (S6)

It measures the year-to-date growth of borrowing funds from the external source. The external funds are borrowed to meet the internal cash requirement at the time of needed. However, the borrowing increases the interest cost of the cooperatives.

Table 4.26 Growth in Borrowed Funds

Year	S6					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	0	-	0	-	0	-
2062	0	-	0	-	0	-
2063	0	-	0	-	0	-
2064	0	-	0	-	100	-
2065	0	-	0	-	66.67	66.67
Mean	-		-		33.34	
S.D.	-		-		42.16	
A.G.R.	-		-		-6.67	
C.V.	-		-		126.45	

Source: Annual Report of Cooperatives.

The above data shows the ratio of growth in borrowed funds of the cooperatives. There is no borrowing in Manasalu and Padmavati within the 5 years period. However, Scope has borrowed some amount at the beginning of 4^{th} year. And it is in decreasing trend. According to PEARLS standard, if institution needs to increase the percentage of total borrowed funds (S6), it should be less than growth in total assets (S11).

4.1.6.5. Growth in Members Share Capital (S7)

It measures the year-to-date growth of members share capital. The growth of member shares is dependent on the growth of institutional earning. The more the growth in member share, the more efficient is the cooperative. High earnings indicate the high dividend pay out ratio and vice versa.

Table 4.27 Growth in Member Share Capital

Year	S7					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	15.73	-	6.04	-	51.56	-
2062	10.05	63.89	38.11	630.96	50.09	96.98
2063	70.64	449.08	54.9	980.94	11.49	22.08
2064	20.24	128.67	69.65	1153.15	9.43	18.26
2065	40.5	257.47	24.37	403.48	37.81	73.2
Mean	31.43		38.61		32.08	
S.D.	22.13		22.33		18.3	
A.G.R.	119.11		107.37		40.67	
C.V.	70.41		57.84		57.04	

Source: Annual Report of Cooperatives.

The above data shows the ratio of growth in member share capital of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean data shows that Padmavati has more share capital than other cooperatives. Since the member share capital to total assets are about within in the range, the growth in share capital is also satisfactory with in standard.

4.1.6.6. Growth in Institutional Capital (S8)

It measures the growth of institutional capital year-to-date. Usually, growth in institutional capital should be greater than the growth of total assets. Static or declining growth tends in institutional capital usually indicates a problem with earnings. Earnings are necessary of a strong institutional reserve. Institutional capital reserve is of essential and it should be added to get earnings. The problem may arise in the addition of institutional capital reserve if earnings are low. The growth is dependent on E8.

Table 4.28 Growth in Institutional Capital

Year	S8					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	9.84	-	19.65	-	37.62	-
2062	6.89	70.02	69.73	354.86	38.33	101.89
2063	12.68	128.86	33.02	168.04	31.28	83.15
2064	10.02	101.28	36.64	186.46	26.79	72.21
2065	10.2	103.66	10.46	53.23	25.54	67.89
Mean	9.93		33.9		31.91	
S.D.	1.84		20.22		5.31	
A.G.R.	6.97		28.35		-7.11	
C.V.	18.53		59.65		16.64	

Source: Annual Report of Cooperatives.

The above data shows the ratio of growth in institutional capital of the cooperatives. The data of Manasalu and Padmavati are in fluctuation trend. The ratio of Scope is in decreasing trend. The mean data shows that Padmavati has more institutional capital than other cooperatives.

4.1.6.7. Growth in General Member (S10)

It measures the growth of general member year-to-date. Usually, membership growth ratio shows the trend of increasing or decreasing number of general members in the prescribed rules and regulations of the institution in terms of membership.

Table 4.29 Growth in General Member

Year	S10						
	PEARLS Std. (%)	Manasalu	Index	Padmavati	Index	Scope	Index
2061	>12	-	-	11.45	-	14.18	-
2062	>12	56.58	-	9.96	86.99	18	126.94
2063	>12	20.49	36.21	18.38	160.52	19.53	137.73
2064	>12	6.07	10.73	8.68	75.81	14.39	101.48
2065	>12	33.15	58.59	7.18	62.71	11.02	77.72
Mean		23.26		11.13		15.42	
S.D.		20.26		3.89		3.02	
A.G.R.		62.39		0.29		-2.86	
C.V.		87.10		34.95		19.59	

Source: Annual Report of Cooperatives.

The above data shows the ratio of growth in general member of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean data shows that Manasalu has more general member than other cooperatives. The ratio of Manasalu and Scope is as per PEARLS standard. The ratio of Padmavati is near about standard.

4.1.6.8. Growth in Total Assets (S11)

It measures the year-to-date growth of total assets. Total assets growth is one of the most important ratios. Strong and consistent growth in total assets improve many of the PEARLS ratios. By comparing the growth in total assets to other key areas, it is possible to detect changes in the balance sheet structure, which could have a positive or negative impact on earning. The greater the total asset is, the more powerful is the organization.

Table 4.30 Growth in Total Assets

Year	S11					
	Manasalu	Index	Padmavati	Index	Scope	Index
2061	34.73	-	55.23	-	80.67	-
2062	47.51	136.8	26.16	47.37	28.86	35.78
2063	34.45	99.19	31.37	56.8	38.85	48.16
2064	35.05	100.9	25.91	46.914	28.2	34.96
2065	42.25	121.7	32.87	59.51	28.97	35.91
Mean	38.8		34.31		41.11	
S.D.	5.24		10.82		20.17	
A.G.R.	6.32		-4.65		-10.9	
C.V.	13.51		31.54		49.06	

Source: Annual Report of Cooperatives.

The above data shows the ratio of growth in total assets of the cooperatives. The data of Manasalu, Padmavati and Scope are in fluctuation trend. The mean data shows that Scope has more total assets than other cooperatives. Generally the ratio or the mean data of the cooperative should be at least or more than inflation rate.

4.2. Correlation Analysis of PEARLS

4.2.1. Correlation of Effective financial structure of Manasalu

Table No. 4.31

	E1	E2	E3	E4	E5	E6	E7	E8
E1	-	-	-	-	-	-	-	-
E2	-0.3	-	-	-	-	-	-	-
E3	-0.2	-0.65	-	-	-	-	-	-
E4	-0.1	0.6	-0.15	-	-	-	-	-
E5	0.1	-0.1	-0.15	0.7	-	-	-	-
E6	0	0.5	0	0.5	0	-	-	-
E7	-0.5	0.1	0.55	-0.3	-0.2	0	-	-
E8	-0.7	0.2	0.55	-0.4	-0.5	0	0.9	-

Source: Annual Report of Cooperatives.

Table 4.31 shows the relationships between different elements of financial structure of Manasalu cooperative. The figures in the table reveal that the relationship pattern between the different elements of financial structure is not predictable. Highest positive correlation has been found between E7 and E8 (r = 0.9) whereas the highest negative correlation exists between E1 and E8 (r = - 0.7).

4.2.2. Correlation of Assets Quality of Manasalu

Table No. 4.32

	A1	A2	A3
A1	-	-	-
A2	0.5	-	-
A3	0.5	0.6	-

Source: Annual Reports of Manasalu

Table 4.32 shows the relationships between different elements of assets quality of Manasalu cooperative. The figures in the table reveal that the relationship pattern between the different elements of assets quality is predictable. Highest positive correlation has been found between A2 and A3 (r = 0.6).

4.2.3. Correlation of Rate of Return of Manasalu

Table No. 4.33

	R1	R2	R5	R6	R7	R8	R9
R1	-	-	-	-	-	-	-
R2	0	-	-	-	-	-	-
R5	0.2	0	-	-	-	-	-
R6	0	0	0	-	-	-	-
R7	-0.1	0	0.1	0	-	-	-
R8	0.5	0	-0.7	0	-0.4	-	-
R9	0.8	0	-0.2	0	0.1	0.7	-

Source: Annual Reports of Manasalu

Table 4.33 shows the relationships between different elements of rate of return of Manasalu cooperative. The figures in the table reveal that the relationship pattern between the different elements of rate of return is not predictable. Highest positive correlation has been found between R1 and R9 (r = 0.8) whereas the highest negative correlation exists between R5 and R8 (r = - 0.7). There is no correlation exists between R2 and R5.

4.2.4. Correlation of Liquidity of Manasalu

Table No. 4.34

	L1	L2
L1	-	-
L2	0.5	-

Source: Annual Reports of Manasalu

Table 4.34 shows the relationships between different elements of Liquidity of Manasalu cooperative. The figures in the table reveal that the relationship pattern between L1 and L2 is positive (r = 0.5).

4.2.5. Correlation of Sign of Growth of Manasalu

Table No. 4.35

	S1	S2	S3	S6	S7	S8	S10	S11
S1	-	-	-	-	-	-	-	-
S2	-0.5	-	-	-	-	-	-	-
S3	-0.4	0.2	-	-	-	-	-	-
S6	0	0	0	-	-	-	-	-
S7	-0.2	-0.7	0.2	0	-	-	-	-
S8	-0.4	-0.7	0.2	0	1	-	-	-
S10	0.9	-0.6	-0.1	0	-0.1	-0.1	-	-
S11	0.6	0.1	-0.1	0	-0.6	-0.6	0.7	-

Source: Annual Report of Manasalu

Table 4.35 shows the relationships between different elements of sign of growth of Manasalu cooperative. The figures in the table reveal that the relationship pattern between the different elements of growth is not predictable. Highest positive correlation has been found between S1 and S10 (r = 0.9) whereas the highest negative correlation exists between S2 & S7 and S2 & S8 (r = - 0.7). There is no correlation exists between S6.

4.2.6. Correlation of Effective Financial Structure of Padmavati

Table No. 4.36

	E1	E2	E3	E4	E5	E6	E7	E8
E1	-	-	-	-	-	-	-	-
E2	-0.5	-	-	-	-	-	-	-
E3	0.1	-0.7	-	-	-	-	-	-
E4	-0.9	0.8	-0.5	-	-	-	-	-
E5	-0.5	1	-0.7	0.8	-	-	-	-
E6	0	0	0	0	0	-	-	-
E7	0.5	-1	-1	-0.8	-1	0	-	-
E8	-0.3	-0.4	-0.4	0.1	-0.4	0	0.4	-

Source: Annual Report of Padmavati

Table 4.36 shows the relationships between different elements of effective financial structure of Padmavati cooperative. The figures in the table reveal that the relationship pattern between the different elements of growth is not predictable. Highest positive correlation has been found between E2 and E5 (r = 1) whereas the highest negative correlation exists between E2 & E7, E3 & E7 and E5 & E7 (r = - 1). There is no correlation exists between E6.

4.2.7. Correlation of Assets Quality of Padmavati

Table No. 4.37

	A1	A2	A3
A1	-	-	-
A2	0	-	-
A3	0	-0.9	-

Source: Annual Report of Padmavati

Table 4.37 shows the relationships between different elements of assets quality of Padmavati cooperative. The figures in the table reveal that the relationship pattern between the different elements of assets quality is not predictable. Highest negative correlation has been found between A2 and A3 (r = -0.9).

4.2.8. Correlation of Rate of Return of Padmavati

Table No. 4.38

	R1	R2	R5	R6	R7	R8	R9
R1	-	-	-	-	-	-	-
R2	-0.9	-	-	-	-	-	-
R5	0	-0.2	-	-	-	-	-
R6	0	0	0	-	-	-	-
R7	-0.3	-0.1	-0.15	0.05	-	-	-
R8	0.8	-0.5	-0.1	0	-0.7	-	-
R9	0	-0.1	0.5	0	-0.7	0.2	-

Source: Annual Report of Padmavati

Table 4.38 shows the relationships between different elements of rate of return of Padmavati cooperative. The figures in the table reveal that the relationship pattern between the different elements of rate of return is not predictable. Highest positive correlation has been found between R1 and R8 (r = 0.8) whereas the highest negative correlation exists between R1 and R2 (r = - 0.9).

4.2.9. Correlation of Liquidity of Padmavati

Table No. 4.39

	L1	L2
L1	-	-
L2	-0.6	-

Source: Annual Report of Padmavati

Table 4.39 shows the relationships between different elements of Liquidity of Padmavati cooperative. The figures in the table reveal that the relationship pattern between L1 and L2 is negative (r = -0.6).

4.2.10. Correlation of Sign of Growth of Padmavati

Table No. 4.40

	S1	S2	S3	S6	S7	S8	S10	S11
S1	-	-	-	-	-	-	-	-
S2	0.8	-	-	-	-	-	-	-
S3	-0.9	-0.5	-	-	-	-	-	-
S6	0	0	0	-	-	-	-	-
S7	-0.9	-0.9	0.7	0	-	-	-	-
S8	-0.7	-0.8	0.4	0	0.6	-	-	-
S10	-0.3	0.2	0.4	0	0	0.2	-	-
S11	0.8	1	-0.5	0	-0.9	-0.8	0.2	-

Source: Annual Report of Padmavati

Table 4.40 shows the relationships between different elements of sign of growth of Padmavati cooperative. The figures in the table reveal that the relationship pattern between the different elements of growth is not predictable. Highest positive correlation has been found between S2 and S11 (r = 1) whereas the highest negative correlation exists between S1 & S7, S7 & S11 and S2 & S7 (r = - 0.9).

4.2.11. Correlation of Effective Financial Structure of Scope

Table No. 4.41

	E1	E2	E3	E4	E5	E6	E7	E8
E1	-	-	-	-	-	-	-	-
E2	-0.9	-	-	-	-	-	-	-
E3	-0.2	-0.1	-	-	-	-	-	-
E4	-0.7	0.6	-0.7	-	-	-	-	-
E5	0.9	0.2	0.1	0.5	-	-	-	-
E6	0.8	-0.8	0.2	-0.7	-0.4	-	-	-
E7	-0.7	0.9	-0.5	0.8	0.1	-0.8	-	-
E8	-0.5	0.2	0.1	0.5	1	-0.4	0.1	-

Source: Annual Report of Scope

Table 4.41 shows the relationships between different elements of effective financial structure of Scope cooperative. The figures in the table reveal that the relationship pattern between the different elements of growth is not predictable. Highest positive correlation has been found between E5 and E8 (r = 1) whereas the highest negative correlation exists between E1 & E2 (r = - 0.9).

4.2.12. Correlation of Assets Quality of Scope

Table No. 4.42

	A1	A2	A3
A1	-	-	-
A2	-0.1	-	-
A3	0.1	1	-

Source: Annual Report of Scope

Table 4.42 shows the relationships between different elements of assets quality of Scope cooperative. The figures in the table reveal that the relationship pattern between the different elements of assets quality is not predictable. Highest positive correlation has been found between A2 and A3 (r = 1) whereas the highest negative correlation exists between A1 & A2 (r = - 0.1).

4.2.13. Correlation of Rate of Return of Scope

Table No. 4.43

	R1	R2	R5	R6	R7	R8	R9
R1	-	-	-	-	-	-	-
R2	-0.7	-	-	-	-	-	-
R5	0.7	-0.3	-	-	-	-	-
R6	-0.7	0.7	-0.6	-	-	-	-
R7	0.05	-0.2	-0.65	0.2	-	-	-
R8	0.6	-0.1	0.1	-0.35	0.55	-	-
R9	0.3	-0.3	0.2	0.2	0.1	0.1	-

Source: Annual Report of Scope

Table 4.43 shows the relationships between different elements of rate of return of Scope cooperative. The figures in the table reveal that the relationship pattern between the different elements of rate of return is not predictable. Highest positive correlation has been found between R1 & R5 and R2 & R6 (r = 0.7) whereas the highest negative correlation exists between R1 & R2 and R1 & R6 (r = - 0.7).

4.2.14. Correlation of Liquidity of Scope

Table No. 4.44

	L1	L2
L1	-	-
L2	-0.3	-

Source: Annual Report of Scope

Table 4.39 shows the relationships between different elements of Liquidity of Scope cooperative. The figures in the table reveal that the relationship pattern between L1 and L2 is negative (r = -0.3).

4.2.15 Correlation of Sign of Growth of Scope

Table No. 4.45

	S1	S2	S3	S6	S7	S8	S10	S11
S1	-	-	-	-	-	-	-	-
S2	0	-	-	-	-	-	-	-
S3	-0.7	-0.3	-	-	-	-	-	-
S6	0.1	-0.6	-0.3	-	-	-	-	-
S7	0	1	-0.3	-0.6	-	-	-	-
S8	-0.1	0.6	0.1	-0.7	0.6	-	-	-
S10	-0.2	-0.3	0.7	-0.4	-0.3	0.5	-	-
S11	0.4	0.6	-0.1	-0.6	0.6	0.2	-0.1	-

Source: Annual Report of Scope

Table 4.45 shows the relationships between different elements of sign of growth of Scope cooperative. The figures in the table reveal that the relationship pattern between the different elements of growth is not predictable. Highest positive correlation has been found between S2 and S7 (r = 1) whereas the highest negative correlation exists between S1 & S3 and S6 & S8 (r = - 0.7).

4.3. Major Findings of the Study

4.3.1. Over the five-year period, Padmavati and Scope has been able to maintain provision for the delinquent loans. However, Manasalu has not maintained loan loss provision for the beginning three years and able to make provision for remaining last two years.

4.3.2. The ratio of net allowance for loan losses to delinquent of Padmavati and Scope has been maintained within the PEARLS standard. There is no loan loss provision in Manasalu for the previous three years. It indicates that allocation of allowances of loan losses is inconsistent with loan delinquency.

4.3.3. All three cooperatives Manasalu, Padmavati, and Scope have consistently maintained the ratio of net loans to total assets. The highest ratio has been observed in Scope.

4.3.4. The ratio of liquid investment to total assets of Manasalu, Padmavati and Scope over the five studies periods are as per the standard of PEARLS. The ratio of Manasalu and Padmavati are in fluctuation trend. But the ratio of Scope is in decreasing trend.

4.3.5. The mean ratio of financial investment to total assets of Manasalu is as per the standard. There is no data of FY 2061 and 2062 of Manasalu. The ratio of Padmavati is as per the standard of PEARLS. The ratio of Scope is also as per the standard except FY 2063, which is higher than the standard of PEARLS.

4.3.6. The mean ratio of non-financial investment to total assets of Manasalu, Padmavati and Scope over the five year studies are not as per the standard of PEARLS. The ratios are in fluctuation trend. The ratios of all three cooperatives are higher than the standard.

4.3.7. The ratio of saving to total assets of Manasalu, Padmavati and Scope has not been maintained. The ratios of those cooperatives are higher than that of standard of

PEARLS. However Manasalu has maintained the PEARLS standard in the FY 2065.

4.3.8. There is no borrowed fund of Manasalu and Padmavati. The Scope cooperative has borrowed the external funds in FY 2064 and 2065. The borrowing made by the Scope in FY 2064 is higher than that of the standard of PEARLS (Max 5 percent).

4.3.9. The ratio of member share capital to total assets of Manasalu, Padmavati and Scope over the five studies period is as per the PEARLS standard (Max. 20). The mean ratios of those three cooperative is less than standard. The ratios are in fluctuation trend.

4.3.10. Manasalu has maintained the ratio of institutional capital to total assets within the period of first two years (min 10 percent). The ratio of last three years of Manasalu is higher than that of PEARLS standard. The ratios of Padmavati and Scope has not maintained within the standard. They are higher than standard.

4.3.11. Manasalu and Padmavati has maintained the ratio of total loan delinquent to total loan portfolio with the PEARLS standard (less than or equal to 5 percent). The ratios of Scope are also as per the standard of PEARLS except FY 2063.

4.3.12. The ratio of non-earning assets to total assets of Manasalu, Padmavati and Scope over the five studies period is not as per the PEARLS standard (less than or equal to 5 percent). The mean ratios of those three cooperative is more than standard. The ratios of Padmavati and Scope are near about standard of PEARLS.

4.3.13. The ratio of net zero cost funds to non-earning assets of Manasalu, Padmavati and Scope over the five studies period is not within the PEARLS standard (greater than 200 percent). The mean ratios of those three cooperative is less than standard. The ratio of Scope is in increasing trend.

4.3.14. Over the five year studies period, Manasalu, Padmavati and Scope has managed to maintain net loan income to average loan portfolio ratio to cover the cost of

funds, operating expenses, etc. The highest ratio has been observed in Manasalu and the lowest ratio has been Padmavati.

4.3.15. The ratios of liquid investment income to average liquid investment ratio of Manasalu has not been calculated. The ratio of Padmavati is in fluctuation trend. The liquid investment has been increasing in Scope. The highest ratio has been observed in Scope.

4.3.16. Over the five year studies period, Manasalu, Padmavati and Scope has experienced the interest cost on saving deposit to average saving deposit in fluctuation trend. The highest ratio has been observed in Manasalu.

4.3.17. There is no borrowed fund of Manasalu and Padmavati. The Scope cooperative has borrowed the external funds in FY 2064 and 2065. The borrowing made by the Scope in FY 2064 is within that of the standard of PEARLS.

4.3.18. The mean ratio of dividend paid on shares to average member shares of Manasalu is lower within the PEARLS standard. The mean ratio of Padmavati and Scope is within the standard of PEARLS. There is no dividend payment by Scope in FY 2065.

4.3.19. The gross margin to average total assets ratio is in fluctuation trend over the five year study periods. The highest ratio has been observed in Manasalu in FY 2061 and the lowest has been observed in Padmavati in FY 2064.

4.3.20. Over the five fiscal period, Manasalu has not been able to maintained the ratio of operating expenses to average total assets within the standard (less than or equal to 10 percent). Padmavati and Scope has been able to maintain the standard of PEARLS.

4.3.21. Over the five fiscal period, Manasalu has not been able to maintained the ratio of total liquidity to average saving deposit within the standard (more than or equal to 15 percent). Padmavati and Scope has been able to maintain the standard of PEARLS. The highest ratio has been observed in Scope.

4.3.22. The ratio of total reserve to total saving deposit of Manasalu, Padmavati and Scope over the five studies period is within the PEARLS standard (less than or equal to 10 percent). The ratio of Manasalu is higher than standard of PEARLS.

4.3.23. Manasalu, Padmavati and Scope have experienced the growth of loans fluctuating over the five year study periods. The ratios of three cooperatives are in fluctuation trend. The highest growth has been shown by Scope in FY 2061.

4.3.24. The growth in liquid investment over the five study period is in fluctuation trend. The highest liquid investment has been observed in Scope in FY 2061 and the lowest liquid investment has also been observed in Scope in FY 2064.

4.3.25. The growth in saving deposits of Manasalu, Padmavati and Scope over the five study period is in fluctuating trend. The highest growth has been observed in Scope in FY 2061 and lowest growth has been observed by Padmavati in FY 2064. The higher growth in saving deposits shows that the institution has a potentiality to invest in loan portfolio, which significantly generates more income.

4.3.26. There is no borrowed fund of Manasalu and Padmavati. The Scope cooperative has borrowed the external funds in FY 2064 and 2065. The borrowing made by the Scope in FY 2065 is in decreasing trend.

4.3.27. The growth in member shares of Manasalu, Padmavati and Scope over the five study period is fluctuation trend. The highest growth ratio has been observed in Manasalu in FY 2063 and the lowest growth has been observed in Scope in FY 2064. The higher growth in member share capital shows that the institution is strong with paid-up capital and vice-versa.

4.3.28. The growth in institutional capital of Manasalu, Padmavati and Scope over the five study period is in fluctuation trend. The highest growth has been observed in Padmavati in FY 2062 and lowest growth has been observed in Manasalu in FY 2062. The ratio is fluctuation due to the earnings over the periods.

4.3.29. Over the five year study period, Manasalu, Padmavati and Scope has been able near about the PEARLS standard (more than 12 percent). The ratio of Manasalu is as per standard except in FY 2064. The ratio of Padmavati is less than that of standard. The data of Scope is within the standard except in FY 2065.

4.3.30. Over the five year study period, Manasalu, Padmavati and Scope have been able to maintain the growth in total assets. The ratios of three cooperatives are in fluctuation trend. The highest growth has been observed in Scope in FY 2061 and the lowest growth has been observed in Padmavati in FY 2064.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter consists with three parts – Summary, Conclusion and Recommendation. The first part deals with a summarization of the whole study, and second part presents the conclusion and the last part presents recommendation taking into considerations the major findings.

5.1. Summary

The study was conducted with the objective to analyze the portfolio of three different cooperative i.e. Manasalu, Padmavati and Scope in the framework of PEARLS over the five years study period from FY 2061 to 2065 following a descriptive as well as analytical research design. The study is based on secondary data. Annual reports and other financial statements are used for the analysis of the study of the cooperative as the major sources of data. The analysis of portfolio is done to obtain a better insight into a firm's position and performance. Various methodologies and tools have been applied to know the portfolio analysis of cooperative.

The major fundamental objective of the study was to analyze of portfolio analysis of the cooperatives, which deals with the specific objectives of the study to know the trend in the protection, level of effective financial structure, trend in assets quality, rates of returns and costs, liquidity position and sign of growth of institution over the five years period.

PEARLS is a performance monitoring system which determines the financial health of institution through the application of its indicators. The indicators of PEARLS were applied to find a better insight in terms of portfolio analysis of the cooperatives. These indicators were put forth to illustrate how change in one ratio has ramification for numerous other indicators. The portfolio analysis of the cooperatives has been analyzed on the basis of PEARLS tools.

The various resources were incorporated in order to upsurge the conceptual review and to apparent a way to its purpose of research work. The concept of micro-finance, meaning and definition of cooperative, principle of cooperative, historical background and development of cooperative, organizational structure of cooperative, types of cooperative, rational of financial performance analysis, historical background of Manasalu, Padmavati and Scope, theoretical prescription and interlocking concept of PEARLS- protection, concept of effective financial structure, concepts of assets, liabilities and institutional capital, concept of assets quality, concept of delinquency and its causes, implication and control, concept of non-earning assets and its financing, concept of rates of returns and costs, concept of loan portfolio, liquid and financial investments, concept of financial intermediation and administrative costs, concept of provision for loan losses, non-recurring income, concept of liquidity and concept of sign of growth were to a greater extent, embodied as conceptual review. On the other part, the review of articles and review of dissertations were included in the research review section.

The research study was undertaken with respect to time frame of five fiscal year from 2061 to 2065, to analyze the performance of Manasalu, Padmavati and Scope within the framework of descriptive as well as analytical research design and the analysis therein has been made in the same way. The required data and information were collected from the secondary sources. In addition, primary data were also used in this research work if possible, which was collected by using unstructured interview with the staffs of the institution. In this research work, PEARLS ratio has been thoroughly implied of the collected data and information to get the meaningful result.

Through the calculation of various ratios of Manasalu, Padmavati and Scope comparing with PEARLS standard, the analysis has been made. The institution has adequately protected the loan loss with the provision of allowance. Manasalu has not maintained the provision for the first three years. The ratio of net loans to total assets, liquid investment to total assets and financial investment to total assets are within the standard of PEARLS. The ratio of non-earning assets to total assets is slightly higher than PEARLS standard due to high cash amount and increase in the acquisition of fixed and other assets. The

saving deposit to total assets is slightly above the PEARLS standard. There are no borrowed funds in Manasalu and Padmavati. The Scope has borrowed external fund to meet the cash demand. The member share capital to total assets is as per the standard of PEARLS. The institutional capital to total assets is far below the standard of PEARLS. The total loan delinquency to total loan portfolio is within the standard of PEARLS. The non-earning assets to total assets are slightly above the standard of PEARLS. The net zero funds to total non-earning assets are far below the standard of PEARLS. It covers the cost of funds, cost of administration and operation, the cost of provisions and the cost of contribution with respect to its amount investment in the loan portfolio. The mean ratio of net loan income to average loan portfolio is higher in Manasalu. The total liquid investment income to average liquid investment of Manasalu is not available. The cost on saving deposit to average saving deposits is higher in Manasalu. The total cost of borrowed funds in Manasalu and Padmavati is zero. The cost of borrowed funds is within the standard of PEARLS. The mean ratio of cost of dividend to average share member is as per the standard of PEARLS. The ratio of gross margin to total assets is higher in Manasalu than other two. The total operating cost to average total assets of Manasalu is slightly higher than standard. The ratios of other two cooperatives are as per the standard. The ratio of total liquidity to average saving deposits of Manasalu is below the standard. The ratios of other two cooperatives are within the standard of PEARLS. The total reserve to total saving deposit is within the standard of PEARLS. The growth in loan has been satisfactory. The growth in liquid investment is satisfactory in Manasalu. But it has been in decreasing in Padmavati and Scope. The growth in saving deposits, member share capital, institutional capital and total assets of the cooperatives has been satisfactorily increased as compared to PEARLS ratio.

In brief, all three cooperatives i.e. Manasalu, Padmavati and Scope have a satisfactory performance. The ratio of most of the cooperatives has been found as per the standard of the PEARLS. It can be said that the portfolio and performance of the selected cooperative is running satisfactorily.

5.2. Conclusion

Based on the study of its findings, the following conclusions have been drawn as its final shape of the study on the financial analysis of Manasalu, Padmavati and Scope cooperatives within the PEARLS standard.

Protection (P)

The allowances for loan losses to allowance required for loan delinquent ratio reveals that the Padmavati and Scope has been maintaining its standard as per the PEARLS standards. In case of Manasalu, there is no delinquent loan losses provision as there are no delinquent loans. The loan loss provision has been maintained for the last two years. It indicates that institutions have allocated the adequate allowance in terms of loan delinquent and conducted the loan renewal policy against delinquent loan. It also indicates the institutions have adequate earnings to defend any future losses.

Effective Financial Structure (E)

The mean ratio of net loans to total assets is within the standard of PEARLS analysis. The growth in loan portfolio in consequent years shows that the institution has potentiality to earn the income in coming years. The mean ratio of liquid investment to total assets of the cooperatives is as per PEARLS standard. It shows that the cooperatives have managed the sources of funds effectively during the study period. The ratios of financial investment to total assets of the cooperatives have also maintained its position within its standard. No financial investment has been found in the Manasalu in the first two years. The mean ratio of non-financial investment to total assets is slightly higher than the PEARLS standard. The data shows that it has invested some portion of its assets in fixed and other assets. The mean ratio of saving deposits also is slightly higher than the PEARLS standard. It is said that institution has able to collect adequate saving deposits, which indicates its standard as per the PEARLS standard. Scope has also maintained the borrowed funds to total assets position within the standard. Manasalu and Padmavati have not borrowed any amount. The mean ratio of member share capital to total assets is partially within the PEARLS standard. The mean ratio of institutional capital to total

assets is falling below than the PEARLS standard. It shows that the institutional has less earning.

Assets Quality (A)

The mean ratio of total loan delinquency to total loan portfolio of Scope cooperative is within the PEARLS standard. There is no total loan delinquency in Manasalu and Padmavati. The ratio of non-earning assets to total assets is above the PEARLS standard. This is due to the investment in fixed assets and other assets including advance and prepaid expenses. Due to the lower net institutional capital, the mean ratio of net zero cost funds of the cooperatives are far below the PEARLS standard.

Rate of Return and Cost (R)

The cooperatives have maintained net loan income to average loan portfolio ratio within the standard of PEARLS. It covers the cost of funds, cost of administration and operation, the cost of provisions and the cost of contribution with respect to its amount of investment in the loan portfolio. The mean ratio of liquid investment income to average liquid investment is quite low. The ratio of liquid investment income to average liquid investment is not clear in case of Manasalu. The mean ratio of total interest cost on saving deposit to average saving deposit has been maintained well. The interest is quite above so as to increase the total member share of the cooperatives. The mean cost of the borrowing funds is within the standard of the PEARLS. Only Scope cooperative has borrowed some amount for two years to meet the current cash requirement. The mean ratio of total dividend cost on share of Padmavati and Scope is within the framework of PEARLS. The mean ratio of Manasalu is however less than the standard. The decreasing trend of gross spread ratio during the study period is due to increase of interest cost on saving deposit and dividend paid on share. The decreasing trend of gross spread indicates the institution has low earnings, it means low potentiality in future. In case of Manasalu, the gross spread is slightly higher in comparison with remaining two as the dividend payment is quite low than others. The operating expenses to average total assets ratio in an average is high with PEARLS standard in case of Manasalu. It means the institution is

paying over expenditure but decreasing trend of this ratio shows to reduce of over expenditure. The mean ratio of Padmavati and Scope are within the standard of PEARLS.

Liquidity (L)

The ratio of liquidity reserves to total deposits of Manasalu is slightly below the PEARLS standard. The mean ratio of Padmavati and Scope are as per the standard of PEARLS. The mean ratios of liquidity reserves to total saving is low than standard. It shows that the institution has not maintained the adequate amount of liquidity reserves with respect to total saving deposits, which affects the earning power of institution.

Sign of Growth (S)

The growth of loans is harmony with the increase in total assets and is not satisfactory as the ratio of net loans to total assets (E1). However, the growth of Manasalu is as per the standard. The growth in liquid investment is higher than the standard of PEARLS as dependent upon the ratio of liquid investment to total assets, E2. The growth in saving deposits shows that the cooperatives have been satisfactorily able to maintain the standard with respect to E5. It is able to attract more depositors. The borrowed fund of Scope is also within the standard. The growth in member shares which is in fluctuating trend over the study period, has maintained the standard with compared to E7. The growth in institutional capital has in fluctuation trend but the mean ratios are within the PEARLS standard. It depends with the institutional capital to total assets, which are below the PEARLS standard. The growth in membership of Manasalu and Scope are within the standard of PEARLS. The growth in membership of Padmavati is below the standard. The growth in total assets is within the PEARLS standard.

5.3. Recommendation

Based on the above conclusions of the study, the following recommendations have been made as a suggestion to come up over the weakness as faced by the cooperatives for its sound financial health.

Protection (P)

The allowances for loan losses to allowance required for loan delinquent greater than 12 months have been maintained as per PEARLS standard. Padmavati and Scope has allocated the adequate allowances in terms of loan delinquent and conducted the loan renewal policy against delinquent loan. The loan renewal policy against delinquent loan is the positive signal against delinquent loan. However the Manasalu has not maintained the loan loss allowance for first three years. So Manasalu is recommended to make provision for the loan losses as it has maintained in the last two years.

Effective Financial Structure (E)

The growth in loan portfolio in consequent years shows that the institution has potentiality to earn the income in coming years. The cooperatives are recommended to set optimal level of net loans to total assets in terms of liquid investments and the yield of this investment with regards to other investment alternatives. The liquid investment to total assets position is within its standard. It shows that the cooperatives have managed the sources of funds effectively during the study period. The ratio of saving deposits shows that institution has able to collect the adequate saving deposits. The investment on financial investment made by the cooperatives is also satisfactory. The cooperatives are recommended to maintain the ratio of liquid investment to total assets and saving deposit to total assets as per PEARLS standard. In terms of member share capital to total assets ratio, it is advisable to increase the member share capital as of total assets within the PEARLS standard. Highly below institutional capital to total assets shows that the institution has low earning. The cooperatives are recommended to increase the sufficient earnings and manage it as per the PEARLS standard.

Assets Quality (A)

There is no loan delinquency in Manasalu and Padmavati during the study period. The ratio of total loan delinquency to total loan portfolio of Scope is in control position within the PEARLS standard. The total loan delinquency has not been increased with respect to increase in total loan portfolio. In terms of non-earning assets to total assets ratio, it is

recommended to evaluate leasing alternatives against purchase or construction of fixed assets and establish depreciation and amortization policies in order to reduce the level of non-earning assets. In terms of zero cost funds to non-earning assets, it is advised to raise the institutional capital and control the non-earning assets to make it as the PEARLS standard.

Rate of Return and Cost (R)

The cooperatives have maintained net loan income to average loan portfolio ratio in terms of its cost recovery. It covers the cost of funds, cost of administration and operation, the cost of provisions and the cost of contribution with respect to its amount of investment in the portfolio. It is recommended to the institutions to increase the loan income with the set of different interest rates on loans according to their purpose, amount, term and risk. The ratio of liquid investment income to average liquid investment is quite low. The institutions needs to minimize the idle liquidity and liquidate non-earning assets and reinvest them in earnings assets. The liquidity investment of Manasalu is not clear. So it is recommended to make clear record of those invested in liquid. The trend of gross spread ratio during the study period is due to increase of interest cost and dividend paid on shares. The institutions have recommended that setting the interest rates and dividend rates with competitive on the financial market. It needs to increase the gross margin ratio by providing the quality assets that yield high earnings and control the loan portfolio from falling in delinquency. In terms of operating expenses to average total assets, the institutions need to eliminate unnecessary expenses and establish discipline in expenses of leadership and employee bodies.

Liquidity (L)

Manasalu has not maintained the adequate amount of liquidity reserves with respect to total saving deposits. Padmavati and Scope have maintained the as per the standard of PEARLS. The Manasalu is to suggest that maintain the proper liquidity reserve as PEARLS standard.

Sign of Growth (S)

The cooperatives are recommended to readapt the policies and standards by competitive and worthwhile interest rates, amount to be granted, terms and purpose, leverage and security to increase the loan portfolio. The institutions need to focus in this segment according to its needs. The institution is recommended to increase the saving deposits offering an attractive with competitive interest rate and should build up its credibility to attract more depositors. Scope is advisable to control the delinquency and focus on reinvestment in productive assets in order to increase the level of institutional capital. The cooperatives are recommended to focus on the saving deposits as the main source of growth in total assets and develop and effective marketing program to attract more savings. The total assets should be forcefully emphasized in the area where it contributes maximum gross spread.

BIBLIOGRAPHY

- Ale, H. B. (2007) "**Diagnosis of Financial Health of Paschimanchal Gramin Bikas Bank Ltd. in the Framework of PEARLS**." Master Level Dissertation., P.N. Campus, T.U.
- Alexander, G.J., Sharpe W. F., & Bailey, J. V. (2001) **Fundamentals of Investment**. New Delhi: Prentice Hall of India.
- Bhide, V.S. (1930) **The Place of Cooperative in National Life**, Bombay: Himalaya Publishing House.
- Cooperative Training Center. (2062) "**Sahakarita Ra Nepalma Yesko Bikas**", Sahakari Bibhag, Kathmandu.
- Dahal, P.C. (1989) "**A Text Book of Cooperative Management"**, Delhi: Konark Publisher Pvt. Ltd.
- Evans, Anna C. and Brian B. (2002) "**A Performance Monitoring System**", A Technical Guide to PEARLS", 24 August 2007 http://www.woccu.org/development/guide/PEARLS_techguide.pdf
- Harris, Sam D. (2005) "**State of Micro Credit Summit Campaign Report December 2005**", Micro Credit Summit Campaign, 15 August 2007 http://www.results.orgaization.au/information/state%20of%20th%20campian%20report%20.2005.pdf
- Mathema, Bhakta P.R. (1969) "**Agricultural Development in Nepal**", A paper presented in the Interaction of Agricultural Program organized by Agriculture Department, Kathmandu.
- Nepal Rastra Bank (2002) "**Directives to the Cooperatives Licensed for Limited Banking Services**" Kathmandu: NRB, Bank Supervision Department, Central Office.
- Ojha, N.R. (2002) "**Micro-finance in Practice: Loan Recovery Approach to the Performance Assessment of Micro-credit Project for Women in Pokhara**", Master Level Dissertation, T.U.

- Patel, Praful (2005) "**Microfinance in South Asia : Today and Tomorrow**", New Delhi: The World Bank Group, 12 August 2007 http://www.worldbank.org.np/WBSITE/EXTERNAL/Countries/Southasia.ext/Nepal.ext
- Pokhrel, B. B. (1988) "**A Study of the Cooperative Movement of Nepal**", Ph.D. Thesis, Bihar University.
- Richardson, D. C. "**PEARLS Monitoring System**", World Council of Credit Unions Tool kits series, no.4 (2002). 12 September 2007 <http: /www.woccu.org/pdf/pearls.pdf>
- Sahakari Bibhag (2062) "**Sahakari Bibhag Sanchhipta Parichaya**", Brochure, Kathmandu: Sahakari Bibhag.
- Sharma, G. R. (1999) "**A Comparative Study on the Financial Performance of Cooperative with Reference to SMCSL and NBCSL Kathmandu**". Master dissertation, T.U.
- Sharma, P. (2008) "**Financial Performance Analysis of Bishal Cooperative Society Limited in the Framework of PEARLS**" Masters Level Dissertation, P.N. Campus, T.U.
- Shrestha, B.P. (1984) "**An Introduction to Nepalese Economy**" Economic Review. Page : 115-117
- Subedi, B. P. (1991) "A **Study on the Accounting Information System of Cooperatives of Nepal**". Master Level Dissertation., T.U.
- WOCCU (2002) "**Development Best Practices in Credit Unions Supervision: Regulatory Standards**". 18 September 2007 http://www.woccu.org/best_practice/bp_files/10820386regulatory.pdf
- Wolff, H. K., & Pant P. R. (2005). "**Social Science Research and Thesis Writing"**. Nepal: Buddha Academic Enterprises Pvt. Ltd.