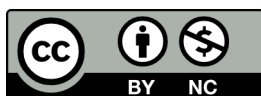


Financial Performance and Sustainability of Rural Cooperatives in Nepal: PEARLS Framework of Janahit Cooperative

Basanta Paudel ¹

¹Assistant Professor,
Janajyoti Multiple Campus
Lalbandi, Sarlahi (T.U.)
basantapaudel1987@gmail.com
ORCID ID: 0009-0007-4912-2614

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Abstract

Cooperatives play a vital role in economic development. This study investigates the PEARLS monitoring system. The study employed a quantitative method using data from FY 2077/78 to 2081/82. This study shows that the cooperative has strong position in the protection (P) indicators and also reveal that the structural weaknesses, especially in saving mobilization, capital formation, and external borrowings in terms of effective financial structure (E). While Asset quality (A) identifies poor efficiency in assets utilization but significant recovery in final year. The rate of return and cost (R) reflect good profitability and cost efficiency despite underutilization of total assets. Liquidity (L) remains sufficient despite high non-earning liquid assets. Also, Sign of Growth (G) indicates weak and fragile in enhancing the members and assets. Likewise, share capital (SC) demonstrates a strong, significantly positive correlation with loan investment (LI) ($r = .932$, $p = .021$) and moderate relation with total assets (TAs) ($r = 0.520$, $p = 0.369$), but relation is not significant.

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SC is negatively correlated with net income (NI) ($r = -0.095$, $p = 0.879$), which is not significant. TAs are positively correlated with LI ($r = 0.772$, $p = 0.126$), although relation is not significant. TAs are moderately negatively correlated with NI ($r = -0.588$, $p = 0.297$), but not significantly. Finally, LI is negatively correlated with NI ($r = -0.214$, $p = 0.729$), but correlation is insignificant. The study concludes that the cooperative requires a debt-funded expansion to internal equity mobilization for sustainability. This study offers new insight into how PEARLS affect financial condition along with different nexus of SC, TAs, LI, and NI; highlighting weaker relation of SC and LI with NI reflect some self-sufficiency gap. These findings imply that managers, policymakers, and regulators can integrate PEARLS to assess strength and weakness of cooperatives.

Keywords: financial performance, financial sustainability, janahit sacco, lalbandi municipality, rural co-operatives, self-sufficiency gap

Introduction

Cooperative is an association of voluntarily associated persons who are deprived of living economically and want to meet their common economic, social, and cultural needs and aspirations through their mutual ownership and democratic management. It enhances the saving habits and voluntarily mobilizes such savings for each other's welfare at the time of need at nominal interest rate (ICA, 2026). It has basic view "each for all and all for each" and "self-help for mutual help" and reflect unity is power and strength. It is the social spirit of the coordinating process that paves the path for social development working together for common benefit based on the principles like peacefulness, social justice and equality that has economical provision for social building (Paudel, 2013).

The informal system of self-help practices such as *Dhukuti*, *Parma*, *Dharma Bhakari* and *Guthi* have been the part of traditional cooperative movement in Nepal. However, in-depth research on these traditional practices have not been undertaken yet. Modern age was officially started in 2010 B.S. under the Department of Cooperatives (DOC). In 2013 B.S. Bakhani Multipurpose Cooperative Society was established to provide financial services for resettles, as the government of Nepal has insisted on the cooperative as the third pillar of the national economy. By the start of 2026 A.D., over 34,000 cooperatives are serving more than 7.3 million members (NEFSCUN, 2026).

As the expansion and growth of cooperative is increasing day by day there needs a systematic performance evaluation system to ensure the sustainability and member confidence. World Council of Credit Unions (WOCCU), as a world regulator and assist provider, has brought out its own financial performance mechanism, viz., PEARLS framework, so as to check the financial sustainability of all cooperative societies. PEARLS is an abbreviated form of Protection (P), Effective financial structure (E), Asset quality (A), Rates of return and costs (R), Liquidity (L), and Signs of growth (S). PEARLS was modified as a management tool to monitor the weaknesses and provide relevant solutions as same as CAMELS system in banks. It provides signs as a “prior warning system” that all managers point out problematic areas and ensure required adjustments before facing critical situations (Richardson, 2009). When comparing the “banking system performance system”, PEARLS framework sets more comparative standard for measuring the stability, sustainability and institutional responsibility.

Recent study by Paudel (2024) found that liquidity, leverage, and risk management have a considerable impact on the financial performance of cooperatives in Nepal. This framework offers standard for regulars to supervise the cooperatives. Also, helps to assess the financial performance for making current decision and formulating the strategies. Dawadi and Prasad (2025) highlighted that strong asset quality, sufficient liquidity, and enduring growth enhance cooperative resilience and long-term sustainability. Despite their considerable contribution to the advancement of community development, Savings and Credit Cooperative Organizations (SACCOs) in Nepal encounter formidable internal obstacles. A principal concern is the insufficiency of meticulous record-keeping and deficient financial management, which may obfuscate the actual financial status of the institution and undermine the trust of its members.

Numerous cooperatives grapple with a deficiency in transparency and an inadequacy of professional expertise, resulting in ineffective operational processes and an inability to safeguard the interests of their members (Simkhada, 2017). Moreover, elevated levels of loan delinquency in conjunction with the accumulation of non-productive assets frequently precipitate liquidity crises. Furthermore, members encounter various limitations, such as exorbitant interest rates and an inadequate provision of collateral, which inhibit their capacity to access the essential capital required for the enhancement of their socio-economic conditions (Richardson, 2009). In the absence of a thorough and standardized evaluative framework such as

PEARLS, cooperatives are at risk of entering a condition characterized by “fictitious earnings,” where losses may not be adequately acknowledged, thereby threatening long-term sustainability.

Although current empirical researches have primarily studied on inter/national, urban, or district-level entities, in-depth study using the PEARLS in the context of localized rural area like Raniganj, Lalbandi – 17 has not been adequately studied yet. Since, bank and financial institutions limiting their services in urban areas and there exists a significant gap. However in-depth study of localized area is remained underexplored (Mahato, 2025; Paudel, 2024). Based on the research gap, first, the primary objective is to describe the financial status of the sampled cooperative in terms of the PEARLS. This study addresses the question of whether the current financial condition of the cooperative described in terms of ‘PEARLS, and how PEARLS analysis show the financial performance and viability. Second, the study examines the multi-variable interrelationships. That means this investigates the interconnected nexus appeared among share capital, total assets, total loan investments, and net income.

This research contributes essential empirical data at academic level, policy level and institutional level. It offers expansion of existing knowledge, provides actionable insights and practical solution to all the stakeholders of cooperatives like managers, regulators, local government, policy makers, students and other researchers at expanding institutional sustainability. It also helps reform its own plan and policies that is consistent with internationally recognized standards to a rural Nepalese context for poverty alleviation. This study starts with introduction. The next section presents the literature review and conceptual framework. The third section explains the methodology. The fourth section shows the results and discussion. Finally, the last section covers the conclusion of the study.

Review

Empirical review

Sami Jaya Cooperatives with better financial structuring performed well than others, though both Sami Jaya and Adiguna Credit Cooperatives have similar weaknesses in asset quality and liquidity management. It is found that PEARLS framework is an effective tool but insufficient for situational analysis (Manafe et al., 2026).

Mahato (2025) highlighted the lower loan portfolio quality, inadequate reserves and systemic financial fragility with Jhapa Cooperatives. Although this research paper did not pay attention to any social and economic context, it was evaluated only the structural problems within organizations. This supports the argument that PEARLS alone is not enough for assessing the total sustainability of a cooperative, since it ignores human quality aspect which relates institutional sustainability coming from outside factors.

Claudia and Amin (2023) stated that the PEARLS method is necessary for institutional recovery and strategic planning in their research of the Indonesian organization KSP Kopkardios Ruteng. The authors studied financial stability of the cooperative since 2020 and concluded that, despite “good” assessments in some aspects, the cooperative struggles to adapt to global standards after the pandemic period. The researchers emphasized the importance of addressing human element of the matter – the necessity of changing the approach from mere survival to professional management. Through incorporation of non-financial measures such as member satisfaction and governance, PEARLS has helped improve the performance evaluation process. These findings clearly indicated that the PEARLS technique has been used extensively for financial evaluation purposes. However, the literature also stressed the need for hybrid methods due to cooperatives’ complicated socioeconomic environments; hence, use of PEARLS alone can lead to an insufficient evaluation process (De Fransu et al., 2023).

Paudel (2013) revealed that significant weaknesses in P, as both cooperatives failed to maintain adequate loan loss provisions due to ineffective delinquency management and loan renewal practices, exposing them to financial risk. Under E, although net loan-to-asset ratios were satisfactory, institutional capital remained below PEARLS standards, reflecting weak and fluctuating earnings. The A dimension revealed a high proportion of non-earning assets, primarily resulting from excessive investment in fixed assets, which reduced operational efficiency. While L indicators suggested adequate solvency; the presence of unproductive liquid assets indicated inefficient resource utilization. Furthermore, S showed that total assets grew above inflation; other indicators such as membership and institutional capital exhibited declining trends, highlighting unstable growth patterns. Additionally, the study emphasized structural and managerial inefficiencies within Nepalese cooperatives. However, sample size is limited and reliance on quantitative indicators only.

Baral (2006) examined the financial well-being of a cooperative through the PEARLS technique in Pokhara. Also, enough capital had not been set aside to enable accumulation of institutional capital in preparation for the unforeseen future by members' deposits. Generally, the financial health of the co-operative was poor, primarily owing to its inability to accumulate enough reserves in spite of paying for members' share capital.

Dawadi and Prasad (2025) analyzed PEARLS method using 149 cooperatives and found that E and S were crucial determinants for viability. From their findings, many cooperatives fail to adapt to the changes brought about by the dynamic environment because they lack sufficient institutional capital to hedge themselves from the effects of economic uncertainty. The researcher further stressed that any cooperative organization must take a professional approach for financial sustainability by empowering its stakeholders. Additionally, unique capital structure of cooperative organizations that is not captured by the CAMELS in banks. Richardson (2002) argues that in order to ensure the security and sustainability of cooperative organizations, P and E should precede profit maximization.

Maulana (2022) analyzed the financial condition of the Indonesian women's cooperative Trisula Sejahtera Bersatu with the help of their financial statements, 2017-2019, found that there was a paradox here: while the cooperative had excellent results in terms of net income (R12), the indicators of P and A were very low. This analysis shows a widespread trend among cooperatives all over the world, when the need for growth and service to members prevails over financial security requirements. The authors concluded that failing to provide the required levels of provisions according to PEARLS means, "even successful cooperatives will remain under high-risk levels".

Paudel (2024) examined the health status of cooperatives in Kathmandu in terms of their ability to control liquidity, leverage, and risks by using regression analysis on 10% of all cooperatives in the area under review. The study revealed that efficient liquidity control is associated with profitability (Return on Assets, Return on Equity). At the same time, this research highlighted an alarming problem called "Leverage Risk": the dependence of numerous Nepalese cooperatives on foreign loans instead of accumulating their equity capital. Such a situation adversely affects A and renders the organization susceptible during economic crisis.

Simkhada (2017) compared PEARLS with the CAMELS (Capital adequacy, Asset quality, Management capability, Earnings, Liquidity, and Sensitivity to

market risk) framework in order to criticize Nepal's use of international monitoring techniques. The researcher contended that although PEARLS is a great management tool for credit unions, but the lack of a robust second-tier regulating authority and a lack of technical skills among cooperative administrators sometimes hinder its adoption in Nepal. Moreover, professionalized audits and real-time A monitoring are necessary for rural and suburban cooperatives to establish sustainability and avoid the significant delinquency rates that currently affect the industry.

The researcher used PEARLS to assess organizations like Biswashilo and Pragati. According to the study, these institutions had low R because of a large amount of non-earning assets, even though they frequently maintained high liquidity (L1 and L2). According to this study, cooperatives in rural areas frequently put safety (cash on hand) ahead of efficiency (investment), which restricts their capacity to provide members with dividends and interest rates that are comparable with those of their metropolitan rivals (Upadhyay, 2018).

Although the PEARLS framework is a widely accepted and effective tool, several important gaps exist in the context of Nepalese cooperatives. First, most studies primarily focused on quantitative financial indicators only (Claudia & Amin, 2023; Mahato, 2025; Manafe et al., 2026). Second, studies emphasized only on urban areas that are geographically limited (Baral, 2006; Paudel, 2013; Paudel, 2024; Upadhyay, 2018), ignoring the relevance of socio-economic dynamics of the cooperatives operating in rural and semi-urban municipalities. Most of the studies focused on post COVID periods, while some studies lack of evidence regarding the relationship between sources of financial structure and net profitability in rural cooperatives. Therefore, this study focuses on fulfilling these gaps by providing an updated, comprehensive, and context-specific PEARLS and other variables adjusted study.

Conceptual Framework: The PEARLS Monitoring System

This study starts with a conceptual framework of PEARLS monitoring system developed by the World Council of Credit Unions (WOCCU). It is cooperative financial monitoring tool as "PEARLS" framework, a specialized set of financial ratios that evaluates the financial health and operational efficiency of co-operatives (Richardson, 2009). It contains 46 quantitative indicators including six critical areas: PEARLS. And this study employs only 19 key indicators to evaluate the financial performance of cooperatives (Mahato, 2025; Maulana, 2022; Richardson, 2009).

The operational matrices and variables, formulas and standard ratios used in this article are structured below:

Table 1

PEARLS Indicators and its Standard Ratios

Pillars/ Dimensions	Indicators	Operational definitions	Formula	WOCCU Standard Benchmark	Sources
Protection (P)	P1	Measures whether the cooperative has 100% coverage for the riskiest long-term delinquent loans i.e. Allowance for delinquent loan (>12 months)	Allowance for loan losses/ Delinquency>12 months	100%	(Richardson, 2009)
	P2	Measures the adequacy of provisions for mid-term or 1–12 months' delinquency after fully covering long-term defaults.	Net allowance for loan losses/ Total delinquency	35%	
	P3	Ensures the level of protection maintained for the healthy (non-delinquent) loan portfolio to ensure a buffer against unexpected future losses.	Total charge-off of delinquent loans (>12 months).	1%	
Effective financial structure (E)	E1	Assesses the percentage of assets invested in the productive loan portfolio.	Net loans/Total assets.	70-80%	(Mahato, 2025);
	E5	Calculates amount of assets financed by member savings, indicating financial independence.	Saving deposits/ Total Assets	70-80%	(Richardson, 2009)
	E6	Evaluates reliance on external borrowing from other financial institutions.	Borrowed Funds/ Total Assets	Max. 5%	
	E7	Finds out the portion of total assets financed by member shares.	Member shares/ Total assets	Max. 20%	
	E8	it ensures assets financed by undivided, legal, and non-distributable reserves.	Institutional capital/Total assets.	Min. 10%	

Asset Quality (A)	A1	It evaluates total credit risk of institution.	Total loan delinquency/ Total loan portfolio	≤ 5%	(Richardson, 2009)
	A2	shows the assets that do not generate income.	Non-earning assets/Total assets	≤ 5%	
Rates of return and costs	R1	The return on the primary income-generating assets is found out within the standard of Entrepreneurial Market Rate (covers all financial, operating, and provision costs).	Total loan income/Average net loan portfolio	Entrepreneurial Market Rate or Min. 10%	(Mahato, 2025); (Richardson, 2009)
	R5	It calculates the interest rate paid to members to protect the value of their savings.	Financial cost: savings deposits/ Average savings deposits	Market rate > Inflation rate	
	R7	It ensures how competitively the cooperative is paying the dividend or financial cost on member shares to their savings deposits.	Financial cost: Member shares/ Average member shares	Market Rates ≥ Interest Cost on Savings (R5)	
	R9	It assesses operational efficiency.	Operating expenses/ Average total assets	< 10%	
	R12	It evaluates the overall profitability and the capacity.	Net income / Average total assets	> 1%	
Liquidity (L)	L1	It takes measure of how adequacy of liquid reserves satisfies the withdrawals after paying obligations.	(Liquid investments (+) liquid assets (-) short term payables)/Saving deposits	Min. 15%	(Richardson, 2009)
	L3	It quantifies the amount of unused liquid funds that inflicts profitability.	Non-earning liquid assets/ Total assets	< 1%	
Signs of Growth (S)	S10	It tracks growth in members.	Growth in members	≥ 15%	(Richardson, 2009)
	S11	it tracks growth in total assets which establishes asset growth outpaces inflation to maintain the real value of the cooperative.	Growth in total assets	> Inflation rate + 10%	

Figure 1

Conceptual framework of PEARLS Analysis and Financial Condition or Soundness (Descriptive design)

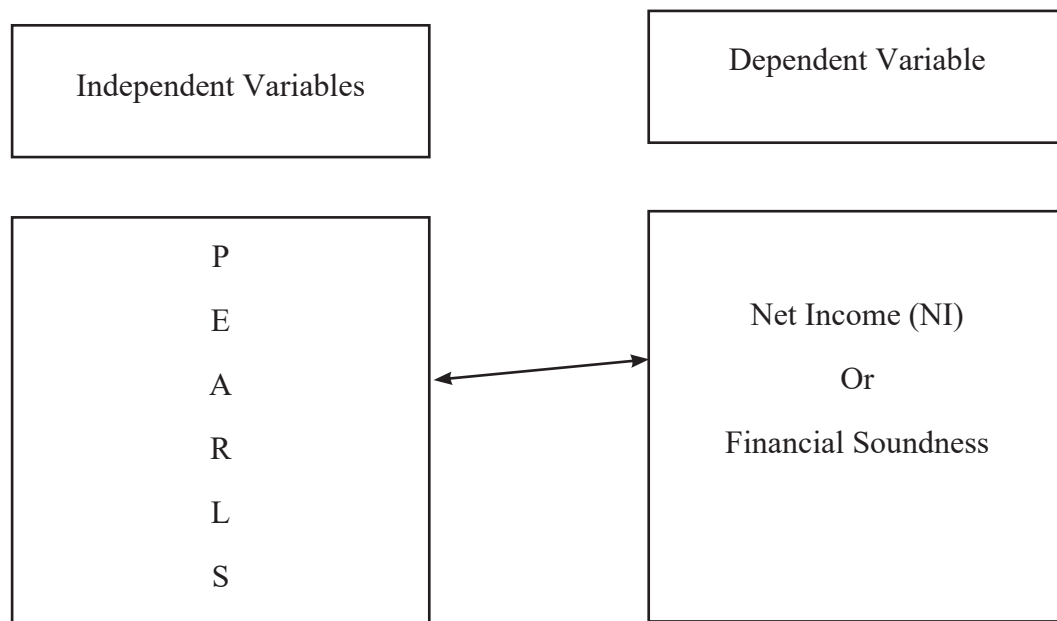
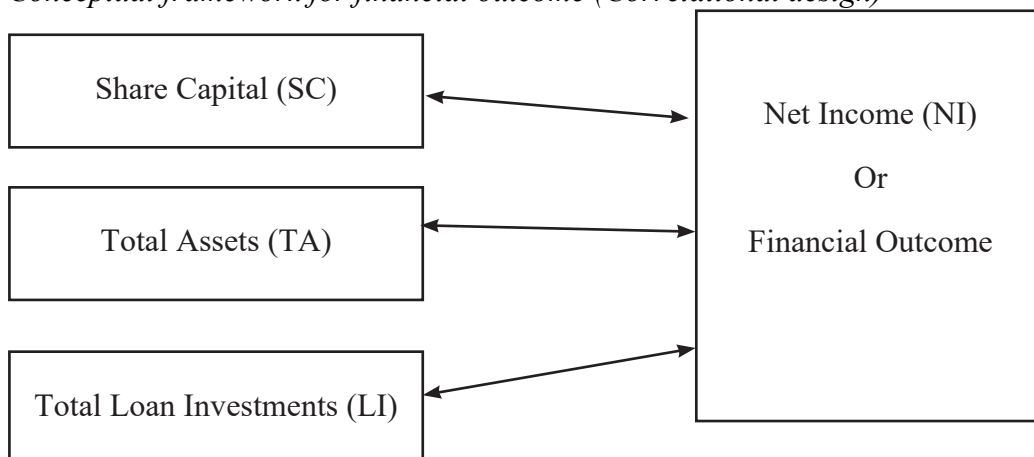


Figure 2

Conceptual framework for financial outcome (Correlational design)



The conceptual framework Figure 1 delivers the descriptive study on the PEARLS framework on the financial soundness of the cooperative. Figure 2 establishes the correlational design to assess the interaction between cooperative's

capital structure and net income. This study focuses intentionally on the multi-variable interconnectedness among assets, share capital loan investment and net income that they are dynamically influence each other. Since it is not linear regression analysis to find the cause-and-effect relationships. As a whole, these figures change the focus of the study from the general theoretical analysis of financial sustainability to a specific, empirical assessment of the capacity of Janahit SACCOS to persistent growth

Method

This study adopts a quantitative research approach, applying descriptive and correlational research design to measure the financial performance and sustainability of the cooperative. There are 99 cooperatives registered under the branch of cooperative in Lalbandi Municipality, where only two cooperatives are operating in Lalbandi-17 out of which Janahit SACCOS is selected following purposive sampling method. This study is based on the secondary data extracted from the audited annual reports and CAS software (cooperative data base system) that includes income statements and balance sheets for five-year periods from FY 2077/78 to 2081/82 B.S. This study derives the variables from the WOCCU's PEARLS technical monographs that has six pillars that includes 46 indicators, while 19 major indicators that are relevant for the study have been used. Each pillar reveals the financial soundness of its dimension.

A descriptive research design is used to measure mean, standard deviation to summarize the result as well as to describe the financial condition of cooperative through PEARLS standardized ratios, while correlational research design tests the multi-variable interrelationships and mutual co-movements across the balance sheet key figures such as total assets, share capital, total loan investment and net income. This study calculated inferential statistics using Pearson's correlation for measuring the relationship between above mentioned variables (Kothari, 2004). Furthermore, data processing was conducted and analyzed using Microsoft Excel for tabulation, and IBM SPSS statistics 27 for advanced statistical testing. The mean is calculated to show the financial soundness of cooperative using this formula:

$$\bar{X} = \frac{\sum X_i}{n} \dots\dots\dots \text{Equation 1}$$

Where, $\bar{X}$ = mean value

Σ = Summation of individual ith items or the annual ratios

n = Total numbers of observed items or years

In addition, standard deviation is calculated employing using this formula:

$$\sigma = \sqrt{\frac{\sum (X_i - \bar{X})^2}{n-1}} \dots\dots\dots \text{Equation 2}$$

Where, σ = standard deviation

Pearson's correlation coefficient (r) was employed to investigate the relationship between capital structure and financial outcomes by the formula

$$r = \frac{n \sum X_i Y_i - \sum X \sum Y}{\sqrt{n \sum X_i^2 - (\sum X)^2 \times n \sum Y_i^2 - (\sum Y)^2}} \dots\dots\dots \text{Equation 3}$$

Where, r = correlation coefficient

X_i, Y_i = i^{th} value of X and Y variable

The multi-variables like share capital, total loan investment, total assets and net income were taken for calculating mutual co-movements among them.

Result and Analysis

This section offers a comprehensive presentation of quantitative data that includes descriptive statistics, correlation analysis among share capital, total assets loan investment and net income and PEARLS indicators and its analysis from the Janahit SACCOS. Additionally, it considers the study's discussion and conclusion area.

Table 2

Descriptive Statistics of Janahit SACCOS

Variables	N	Mean	Std. Deviation
Share Capital (Rs.)	5	12482640.0000	210120.00857
Total Assets (Rs.)	5	137008830.8320	6070178.08128
Loan Investment (Rs.)	5	100030998.4000	10471556.08182
Net Income (Rs.)	5	1091563.8760	1510698.72809
Valid N (listwise)	5		

Source Annual Report of Janahit SACCOS using SPSS

Table 2 results showed that the mean share capital is Rs. 12,482,640, which is maintained with a relatively low standard deviation of Rs. 210,120. This indicated

that the share capital maintained by the cooperative is relatively consistent. The total assets indicate a relatively high mean value of Rs. 137,008,831, which is maintained with a standard deviation of Rs. 6,070,178. This indicates that different levels of total assets are maintained. The mean loan investment is Rs. 100,030,998, which is maintained with a standard deviation of Rs. 10,471,556. This indicates that lenders maintain different practices for making loan investments. The net income is maintained at a mean value of Rs. 1,091,564, which is maintained with a relatively high standard deviation of Rs. 1,510,699. This revealed that the institutions maintain different levels of net income. The share capital maintained by the institutions is similar, whereas the total assets, loan investments, and net incomes maintained by the institutions indicate different levels.

Table 3*Correlation Analysis*

Variables		Share Capital (Rs.)	Total Assets (Rs.)	Loan Investment (Rs.)	Net Income (Rs.)
Share Capital (Rs.)	Pearson Correlation	1	.520	.932*	-.095
	Sig. (2-tailed)		.369	.021	.879
	N	5	5	5	5
Total Assets (Rs.)	Pearson Correlation	.520	1	.772	-.588
	Sig. (2-tailed)	.369		.126	.297
	N	5	5	5	5
Loan Investment (Rs.)	Pearson Correlation	.932*	.772	1	-.214
	Sig. (2-tailed)	.021	.126		.729
	N	5	5	5	5
Net Income (Rs.)	Pearson Correlation	-.095	-.588	-.214	1
	Sig. (2-tailed)	.879	.297	.729	
	N	5	5	5	5

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Annual Report of Janahit SACCOS using SPSS

The correlation analysis shown in Table 3 illustrates the Pearson correlation coefficients among share capital, total assets, loan investment, and net income. The analysis reveals a strong positive and statistically significant relationship between share capital and loan investment ($r = .932$, $p = .021$), indicating that an increase in share capital is associated with a corresponding increase in loan investment. The relationship between share capital and total assets is positive and moderate in magnitude ($r = .520$); however, the p-value ($p = .369$) indicates that this relationship is not statistically significant. Likewise, share capital exhibits a very weak negative association with net income ($r = -.095$, $p = .879$), suggesting no meaningful statistical relationship between these variables. Similarly, total assets demonstrate a positive relationship with loan investment ($r = .772$), but the association does not reach statistical significance ($p = .126$). In contrast, total assets show a moderate negative relationship with net income ($r = -.588$), although this relationship is also statistically insignificant ($p = .297$). Furthermore, loan investment has a weak negative correlation with net income ($r = -.214$, $p = .729$), indicating the absence of a significant relationship between these two variables. Overall, among all the variables examined, only the association between share capital and loan investment is found to be statistically significant at the 5 percent level. Nevertheless, the interpretation of these findings should be made carefully because the analysis is based on a limited number of observations ($N = 5$), which may affect the statistical power and generalizability of the results.

Table 4*Protection Analysis table*

FY	P1	P1_std	Comment P1	P2	P2_std	Comment P2	P3	P3_std	Comment P3
2077/78	100.00	100.00	Better Provision	35	35	Better Provision	1	1	Better Provision
2078/79	100.00	100.00	Better Provision	35	35	Better Provision	1	1	Better Provision
2079/80	100.00	100.00	Better Provision	35	35	Better Provision	1	1	Better Provision
2080/81	100.00	100.00	Better Provision	35	35	Better Provision	1	1	Better Provision
2081/82	100.00	100.00	Better Provision	35	35	Better Provision	1	1	Better Provision

Source: Annual Report of Janahit SACCOS using SPSS

Table no. 4 demonstrates the protection analysis consistently strong in the financial protection status. The value of the P1 indicator is 100 percent for all fiscal years, which implies that there has been provision against possible losses of the loans, and this is a sign of high security in lending. The value of P2 is also constant at 35 percent that fulfills the standard requirement and revealing enough protection against delinquent loans. Likewise, P3 is constant at 1 percent over study periods this outlines that there is enough provision against delinquent loans. All ratios fully maintained their standard values without any variance. Hence, it reveals that cooperative has implemented sound risk management policies. Moreover, it emphasizes that cooperative has the strong commitment on maintaining secured provision against loan losses to protect its members' deposits.

Table 5

Report

	P1	P1_std	P2	P2_std	P3	P3_std
Mean	100.0000	100.0000	35.00	35.00	1.00	1.00
N	5	5	5	5	5	5
Std. Deviation	.00000	.00000	.000	.000	.000	.000

Source: Annual Report of Janahit SACCOS using SPSS

Table no. 5 shows the case processing summary and report of actual and standard of protection ratios. The total number of cases are 5 though number of observations are 6. The average value of 5 cases is 83.3% and rest 1 is 16.7% which reveal that most of the data is valid and useful for the study. Further, according to the report section, the average value of P1 amounts to 100.00, which is identical to its standard value of 100.00, signifying absolute adherence to the desired benchmark. Likewise, the average value of P2 amounts to 35.00, which also corresponds to its standard value of 35.00, implying satisfactory provision. Likewise, the average value of P3 amounts to 1.00, which is equivalent to its standard value of 1.00, indicating proper coverage. Moreover, N for all the variables is equal to 5, showing consistency with regard to the data set being analyzed. The standard deviation of P1 along with its standard equals to 0.00000, meaning there was no change in the values for the duration of the study. In addition, the standard deviation of P2 along with its standard equals to 0.000, depicting a completely steady value. The standard deviation of P3 along with its standard is equal to 0.000, showing zero fluctuations. Overall, the table demonstrates a completely consistent pattern where all the mean values coincide with their standards.

Table 6*Effective Financial Structure Analysis*

FY	E1	E1_std	Comment E1	E5	E5_std	Comment E5	E6	E6_std	Comment E6	E7	E7_std	Comment E7	E8	E8_std	Comment E8
2077/78	64	70 to 80	Not Good	63.83	70 to 80	Not Good	20.80	Max. 5	Weak	9.38	max 20	within limit	4.16	mini 10	Weak
2078/79	79	70 to 80	Best	62.02	70 to 80	Not Good	18.67	Max. 5	Weak	9.11	Max 20	within limit	5.37	Mini 10	Weak
2079/80	75	70 to 80	Best	64.86	70 to 80	Not Good	16.58	Max. 5	Weak	9.38	max 20	within limit	4.11	Mini 10	Weak
2080/81	74	70 to 80	Best	66.04	70 to 80	Not Good	13.56	Max. 5	Weak	9.17	max 20	within limit	4.72	mini 10	Weak
2081/82	74	70 to 80	Best	68.37	70 to 80	Not Good	14.57	Max. 5	Weak	8.56	max 20	within limit	12.27	mini 10	Good

Source: Annual Report of Janahit SACCOS using SPSS

In Table 6, the cooperative's financial situation during the study period is mixed, according to the examination of the Effective Financial Structure indicators (E1, E5, E6, E7, and E8). With the exception of the first year, when it was below the benchmark, the E1 ratio shows progress, staying within the optimal range of 70–80% in most years, suggesting effective usage of assets in income-generating activities. Nonetheless, E5 continuously stays below the recommended range, indicating insufficient member savings mobilization and restricted financial independence. In every year, E6 is far higher than the 5% statutory norm, indicating a strong reliance on outside funding that raises financial risk. Likewise, E7 shows a steady contribution from members and stays within the allowable limit over the course of the time. E8 is weak in the majority of years and stays below the minimal need of 10%, but it has improved in the last year. Overall, the inadequate institutional capital, poor savings mobilization, and efficient loan allocation are highlighted.

Table 7*Report*

	E1	E5	E6	E7	E8
Mean	73.36	65.0240	16.8360	9.1200	6.1260
N	5	5	5	5	5
Std. Deviation	5.701	2.38246	2.95843	.33593	3.47227

Source: Annual Report of Janahit SACCOS using SPSS

Table no. 7 exhibits that mean value of E1 (73.36) is within standard; thus, adequacy in loan structure exists, whilst values below benchmarks for E5 (65.02), E6 (16.84), E7 (9.12) and E8 (6.13); hence structural inefficiency exists. Standard deviations are also presented for variability among the results, with E1 (5.701) and E8 (3.472) exhibiting moderate variation thus indicating recent improvements, while E5 (2.38), E6 (2.96), and E7 (0.34) suggest relatively steady but consistently poor performance. The cooperative shows advancement in asset allocation but continues to experience challenges in savings mobilization, asset utilization and capital adequacy.

Table 8

Assets Quality Analysis

FY	A1	A1_std	Comment A1	A2	A2_std	Comment A2
2077/78	90.91	up to 5	Weak	5.32	up to 5	Weak
2078/79	62.62	up to 5	Weak	6.82	up to 5	Weak
2079/80	64.43	up to 5	Weak	6.42	up to 5	Weak
2080/81	68.59	up to 5	Weak	6.69	up to 5	Weak
2081/82	0.97	up to 5	Good	0.70	up to 5	Good

Source: Annual Report of Janahit SACCOS using SPSS

In Table 8, A1 and A2 shows mediocre in prior years with substantial improvement shown in most recent years. The value of A1 remained at a very high throughout the year, fluctuating between 62.62%-90.91%, and greatly exceeding the acceptable standard up to 5% as prescribed; indicating that the incremental loans were highly delinquent which exhibits lack of credit risk management. A2 also did not fall under the standard during past four periods, indicating asset inefficiency and a lack of financial discipline. But a significant progress can be seen in 2081/82 with both A1 (0.97%) & A2 (0.70%) that were able to fit within the acceptable limit, thus enabling them to earn “Good” category which indicates the recovery of asset quality and improvement in management practices.

Table 9

Report

	A1	A2
Mean	57.5040	5.1900
N	5	5
Std. Deviation	33.57490	2.57860

Source: Annual Report of Janahit SACCOS using SPSS

Through Table 9, the mean value of A1 (57.50) indicates a much higher than medium level, hence indicating overall asset quality has remained weak across the study period although recent improvement surpassed historical lows. In a similar fashion, the average of A2 (5.19) is slightly above acceptable levels and illustrates some minor inefficiencies in terms of asset utilization. The values for standard deviation reinforcement show a notable variation, especially for A1 (33.57), revealing that the quality of loans changes significantly over time. Similarly, A2 has a relatively high standard deviation (2.58), which indicates inconsistent performance as well. All summed up, although it is positive to see recent improvements, the cooperative has struggled with serious asset quality issues over a long period of time and will need strong credit risk management and monitoring systems for forward moving.

Table 10

Rate of Return and costs Analysis

FY	R1	R1_std_min	Comment R1	R5	R5_std = inflation rate*	Comment R5	R7	R7_std	Comment R7	R9	R9_std_max	Comment R9	R12	R12_std	Comment R12
2077/78	15.12	10	Good	10.21	3.60	Good	5.22	3.60%	Good	2.88	10	Good	1.43	> 1, E8 =minimum 10	Weak
2078/79	15.47	10	Good	12.39	6.40	Good	6.25	6.40%	Good	3.04	10	Good	1.46	> 1, E8 =minimum 10	Weak
2079/80	12.62	10	Good	11.94	7.70	Good	1.58	7.70%	Not good	2.84	10	Good	0.14	> 1, E8 =minimum 10	Weak
2080/81	15.75	10	Good	12.11	5.40	Good	7.35	5.40%	Good	2.95	10	Good	1.84	> 1, E8 =minimum 10	Weak
2081/82	12.56	10	Good	9.09	4.10	Good	11.63	4.10%	Good	2.55	10	Good	-0.76	> 1, E8 =minimum 10	Weak

Source: Annual Report of Janahit SACCOS using SPSS

Table 10 shows the composite analysis of the rate of return and cost indicators (R1, R5, R7, R9, and R12), generally showing a sound profitability position in each indicator except a weakness in R7 and all in R12. R1 should be higher than the minimum standard of 10% for all years, indicating effective income generation from lending activities. A similar conclusion can be drawn from R5, which exceeded the inflation rate (* = inflation rates retrieved from WorldData.info. (2026) in all years thus indicating that cooperative is able to provide competitive positive returns to its members. However, R7 was also on standard and in line or above benchmark, giving

indication of efficient fund used except one period. R9 stayed below the standard limit of 10% during the period, indicating efficient operation and effective administration of costs. Indeed, R12 was still all below standard during all the years and also even turned to negative value at year 2081/82, suggesting insufficient accumulation of capital and that those institutions may not be sustainable.

Table 11

Report

	R1	R5	R7	R9	R12
Mean	14.3040	11.1480	6.4060	2.8520	.8220
N	5	5	5	5	5
Std. Deviation	1.58064	1.43270	3.63671	.18512	1.09326

Source: Annual Report of Janahit SACCOS using SPSS

Table 11 shows that the mean values of R1 (14.30), R5 (11.15), R7 (6.41), and R9 (2.85) reached their standards, proving high overall profitability cost by valuation Table results across all categories of cost and revenue to confirm strong profitability; In this regard, however, the average of R12 (0.82) remains below the minimum cut-off point, suggesting weak institutional growth. Additionally, the moderate standard deviation of R7 (3.64) indicates variation in cost of funds; all other indicators reflect reasonable stability. So overall, the cooperative represents good but of not very strong earning capacity and good cost management however it has challenges and weaknesses in strengthening its capital base for long term sustainability.

Table 12

Liquidity analysis

FY	L1	L1_std	Comment L1	L3	L3_std	Comment L3
2077/78	45.91	minimum 15	Good	0.81	<1	Good
2078/79	16.32	minimum 15	Good	0.66	<1	Good
2079/80	23.29	minimum 15	Good	1.02	<1	Weak
2080/81	23.22	minimum 15	Good	1.16	<1	Weak
2081/82	27.20	minimum 15	Good	2.52	<1	Weak

Source: Annual Report of Janahit SACCOS using SPSS

As shown in table 12, L1 was consistently above the minimum standard of 15% for all years, ranging from 16.32% to 45.91%, indicating adequate ability of the cooperative to meet its obligations in the short term. This implies that the institution

kept adequate liquidity buffers during the entire period of time covered by this study. But L3 is trending down in terms of performance. Although the ratio was below 1 in the first two years, therefore was within the limit; its value was above this rate from 2079/80 onwards and reached up to 2.52 in the year of 2081/82 depicting an inefficient use of liquid resources where continuously rising stagnant cashes are observed. The aggregate analysis of liquidity indicators (L1 and L3) shows a broad sufficient liquidity position with signs for the emerging weaknesses over last fiscal years.

Table 13

Report

	L1	L3
Mean	27.1880	1.2340
N	5	5
Std. Deviation	11.17549	.74403

Source: Annual Report of Janahit SACCOS using SPSS

Table no. 13 indicates that L1 value (27.19) far exceeds the standard and confirms overall liquidity adequacy. On the other hand, L3 has a high mean of 1.23 which is above the acceptable range and denotes inefficiency in liquid asset management. L1 (11.18) having a larger standard deviation represents high variability, meaning the level of liquidity changes significantly year-on-year, while L3 (0.74) shows moderate variability. The overall position is adequate, but the placing of liquid assets has been suboptimal, which calls for better liquidity management.

Table 14

Sign of growth Analysis

F.Y.	S10	S10_std	Comment S10	S11	S11_std	Comment S11
2077/78	8.40	> 15	Weak	49.69	> inflation rate + 10	Good
2078/79	5.56	> 15	Weak	7.44	> inflation rate + 10	Weak
2079/80	3.89	> 15	Weak	-3.23	> inflation rate + 10	Weak
2080/81	4.07	> 15	Weak	1.64	> inflation rate + 10	Weak
2081/82	1.84	> 15	Weak	6.71	> inflation rate +10	Weak

Source: Annual Report of Janahit SACCOS using SPSS

The above Table 14 reveals weak and inconsistent performance of cooperative derived from the aggregated analysis of signs of growth indicators (S10 and S11). S10 was significantly below the desirable standard of greater than 15% for each year,

with a range from 1.84% to 8.40%, and consistently classified “Weak”. This indicated that cooperative is not able to attract the desirable members and retain its existing members to stay in future. However, S11 performs relatively better meeting the benchmark of inflation rate plus 10% in 2077/78 (49.69%) but still recorded negative growth (-3.23%) from achieving this limit threshold in 2079/80 and categorized as “Weak” in rest years. This fluctuation revealed instable growth in assets and may be challenging in sustainable growth and expansion of cooperative. This fluctuation highlights the inconsistency in utilizing assets, even with some positive trends in alternate years.

Table 15

Report

	S10	S11
Mean	4.7520	12.4500
N	5	5
Std. Deviation	2.43150	21.25784

Source: Annual Report of Janahit SACCOS using SPSS

Table 15 reveals S10 mean escape velocity (4.75), the required standard is above this. This conclusion once again shows weak asset growth overall. The average of S11 (12.45) implies average performance, and yet points to variability in meeting the benchmark. S10 has low variation (SD = 2.43) and consistently poor performance, while S11 performs well on average (S11 has high SD = 21.26), but performance varies greatly over time suggesting very fluctuant saving growth. On aggregate, the cooperative show weak and volatile growth performance, indicating a room for improvement in expansion strategies and savings mobilization.

Discussion

The data supports the descriptive path that have already sketched in conceptual framework (Figure 1). In Particular, the P indicators are consistent with the international standards and demonstrates that the institution has incorporated sound risk management practice. This connects with the conceptual framework, describing the cooperative as delegated monitors that reduce transaction cost and safeguard the members’ savings and investments. On the other hand, it contradicts with the findings of Paudel (2013) and Upadhyay (2018) who found that the Nepalese

cooperative sectors often fails to maintain sufficient provisions against loan losses. The result is mixed that is partially aligned with the conceptual framework (Figure 2). It demonstrates that it fails to connect to the path from growth to profitability. The share capital and loan investment have consistency and strong success path in relationship ($r = .932$, $p = .021$), whereas the paths involving net income fails to reach statistical significance. This inconsistency suggests investing loan from the share capital does not increase the profitability as revealed the conceptual framework (Figure 2). This failed path to net income because of high reliance on external borrowing (E6), which increases financial costs, and the rising volume of “idle cash” or non-earning liquid assets (L3), which suppresses potential earnings. These structural weaknesses in savings mobilization (E5) and institutional capital (E8) align with the findings by Baral (2006), Mahato (2025), and Simkhada (2017), who suggested the systemic capital inadequacy in various regional cooperatives across Nepal.

The findings by Dawadi and Prasad (2025) is aligned to the dramatic recovery in the financial year 2081/82 B.S. This refers to the potential for financial resilience through professional management. Though, S is consistently weak throughout the study periods, indicating a growth gap that threatens long-term viability. The PEARLS monitoring toolkit by Richardson (2009) describes it as an early warning system that suggests the cooperative should have member- driven equity rather than debt-funded expansion. For achieving long term sustainability and viability, Janahit SACCOS should apply the complementary governance indicators proposed by Mahato (2025). In conclusion, the findings suggest that Janahit SACCOS requires a strategic structural rebalancing to get the pathways to financial sustainability.

Conclusions

The empirical findings showed that the cooperative’s primary strength was its commitment to Protection (P), maintaining 100% coverage for delinquent loans which is fully aligned with international benchmarks and Janahit SACCOS has established a secure shield for members’ deposits. However, the study identifies that this safety was undermined by weaknesses in the Effective Financial Structure (E), specifically an over-reliance on external debt and a consistent failure to meet institutional capital benchmarks.

The conceptual framework employed in this research verifies that institutional health is not merely a product of profitability, but a delicate balance between risk

protection and efficient capital structuring and effective financial intermediation. While the correlation analysis shows there is positive association between Share Capital and Loan Investment ($r= 0.932$, $p= 0.021$) that reinforces the view of cooperatives as member-funded intermediaries, where accumulating member equity directly boosts productive loan activities. The results also indicate that while Janahit SACCOS reveals institutional growth through asset and loan growth, higher internal capital formation, operational efficiency, and efficient management of non-earning liquidity are necessary to maintain long-term financial sustainability. Consequently, this research concludes that the PEARLS framework remains a powerful diagnostic tool that Janahit SACCOS must apply the structural rebalancing from debt-funded expansion to internal equity mobilization and attentive resource management are crucial to sustainable cooperative performance as financial growth.

This research contributes to the academic discourse by integrating the PEARLS with Financial Sustainability Theory. It demonstrates that in a rural sub-urban economy, the “pathway” to sustainability is often blocked by high liquidity preferences and external debt dependencies. The study provides empirical evidence that expands to theorize the framework, showing that “growth” does not automatically translate into “net surplus” without institutional efficiency. The practical and policy Implications at the institutional level, management should prioritize aggressive savings mobilization (E5) and the retention of net income to bolster institutional capital (E8). At the policy level, cooperative regulators and local governments should promote the regular adoption of the PEARLS and provide financial management training to ensure the productive utilization of liquid assets (L3) and faster loan recovery procedures.

The study was based on secondary data of single cooperative, the accuracy of the findings depended on the reliability of the cooperative’s five-year audited reports. Additionally, being a case study of a specific cooperative, the findings may offer limited generalizability to large-scale urban cooperatives. Moreover, the study applied the quantitative methods of the PEARLS framework and excluded qualitative variables such as leadership styles, member participation, good governance and quality standard of living. Future research will focus on expanding the samples across different regions of Nepal. Future research will explore the use of digitalization in managing the growth gap.

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