IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Optimizing Asset And Liability Strategies For Sustainable Growth In Urban Co-Operative Credit Societies

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Abstract:

Urban Co-operative Credit Societies (UCCS) play a crucial role in providing financial services to small businesses, individuals, and lower-income groups. However, their financial sustainability depends significantly on efficient Asset and Liability Management (ALM). This study examines the movement of assets and liabilities in UCCS within Solapur District, Maharashtra, focusing on their impact on financial risk management, liquidity, and overall stability. Using primary data collected from 320 UCCS, various statistical tools such as descriptive analysis, reliability tests, factor analysis, and chi-square tests were applied to evaluate financial strategies and risk mitigation practices.

The findings indicate that many UCCS face challenges in liquidity management, policy formulation, and risk assessment, leading to financial instability. While some societies have established monitoring mechanisms and periodic audits, gaps remain in adopting data-driven financial strategies. The hypothesis testing confirms that the movement of assets and liabilities significantly impacts financial risk management. The study recommends enhanced financial planning, use of technology-driven financial tools, regulatory compliance, and regular audits to ensure long-term sustainability.

Keywords: Urban Co-operative Credit Societies, Asset and Liability Management, Financial Risk, Liquidity, Financial Sustainability, Risk Mitigation.

1. Introduction

Urban Co-operative Credit Societies (UCCS) play a vital role in the financial ecosystem by providing banking and credit facilities to individuals, small businesses, and lower-income groups who may not have easy access to commercial banks. These societies function on a cooperative model, where members contribute funds and benefit from financial services while sharing collective ownership. The primary objective of UCCS is to promote financial inclusion, encourage savings, and provide credit at reasonable interest rates to their members. Their operations are governed by cooperative principles, which emphasize mutual assistance, democratic decision-making, and equitable distribution of financial benefits.

In recent years, the financial landscape for UCCS has become increasingly complex due to changing economic conditions, regulatory frameworks, and growing competition from commercial banks and other

financial institutions. One of the biggest challenges faced by UCCS is effective financial management, particularly in terms of Asset Liability Management (ALM). The movement and management of assets and liabilities directly impact liquidity, profitability, and risk exposure. Assets in UCCS primarily include loans and advances given to members, investments, and cash reserves, while liabilities include member deposits, borrowings, and other financial obligations. A well-balanced asset-liability structure ensures that the society can meet its obligations, maintain liquidity, and generate sustainable financial growth.

The growing financial complexities and increasing regulatory requirements make it imperative for UCCS to adopt strategic financial management practices. Given the evolving financial landscape, it becomes essential to study the movement of assets and liabilities within these societies to understand how well they are managing their financial resources. The study aims to evaluate whether UCCS have structured policies and monitoring mechanisms to ensure efficient asset-liability management.

The study will provide practical recommendations to UCCS for improving their financial management strategies. Policymakers, financial regulators, and UCCS administrators can use these insights to formulate guidelines that enhance operational efficiency. By identifying gaps and inefficiencies, the study will contribute to the development of sustainable financial models for UCCS, ensuring their long-term viability in the cooperative banking sector.

However, Asset Liability Management is a key determinant of financial sustainability for Urban Co-operative Credit Societies. This research offers a comprehensive evaluation of ALM practices, helping these societies strengthen their financial strategies, minimize risks, and enhance overall efficiency. The findings of this study will serve as a valuable resource for cooperative banks, financial institutions, and policymakers aiming to improve the functioning of UCCS in India.

2. Review of Literature

ALM plays a crucial role in managing liquidity and financial risks in cooperative financial institutions. According to Vaidyanathan (2013), ALM involves balancing assets and liabilities to minimize risks related to liquidity, interest rates, and credit. Poor ALM strategies can lead to financial distress and reduced profitability for credit societies (Kumar & Sharma, 2015).

Liquidity management is essential for the smooth functioning of cooperative credit societies. Patil and Patil (2017) examined liquidity trends in Indian cooperative banks and found that improper asset-liability matching often results in liquidity crises. Similarly, Ghosh (2019) emphasized that cooperative credit societies must implement strict liquidity control measures to avoid financial instability.

Several studies highlight the importance of risk management in cooperative institutions. Mishra (2016) noted that credit risk and operational inefficiencies significantly affect the financial performance of cooperative credit societies. Jain (2020) further pointed out that financial risk can be mitigated by adopting advanced risk management frameworks, including regular audits and stress testing.

The use of financial analysis tools, such as ratio analysis and forecasting techniques, can enhance decision-making in credit societies. Singh and Verma (2018) stated that financial modelling helps in tracking asset and liability movements effectively, enabling institutions to predict future trends and improve financial stability.

Urban Co-operative Credit Societies (UCCS) face multiple challenges in managing their assets and liabilities. Desai (2021) found that lack of professional management, regulatory constraints, and limited access to capital are major barriers to effective ALM in UCCS. To address these challenges, Basu (2022) suggested that cooperative credit institutions must adopt technology-driven financial management solutions to improve efficiency and reduce risks.

The review of literature highlights the significance of ALM in cooperative credit societies, emphasizing its role in financial risk management, liquidity control, and overall stability. While various studies discuss ALM challenges and strategies, there is a need for further research focusing on the specific financial

practices of Urban Co-operative Credit Societies, particularly in the context of evolving regulatory and economic conditions.

3. Objectives of the Study

i. To analyse the movement of assets and liabilities in Urban Co-operative Credit Societies (UCCS).
ii. To assess the effectiveness of asset-liability management (ALM) strategies in UCCS.
iii. To evaluate the impact of asset and liability fluctuations on the financial stability of UCCS.
iv. To examine the role of financial analysis tools in managing asset and liability movement.
v. To identify challenges faced by UCCS in maintaining an optimal balance between assets and liabilities.

4. Hypothesis

The following hypotheses are formulated:

H_0: The movement of assets and liabilities does not significantly impact the financial risk management of Urban Co-operative Credit Societies.

H_1: The movement of assets and liabilities significantly impacts the financial risk management of Urban Co-operative Credit Societies.

5. Research Methodology

The study adopts a descriptive and analytical research methodology to examine the movement of assets and liabilities in Urban Co-operative Credit Societies (UCCS) and its impact on financial risk management. A quantitative approach with a survey-based research design has been used, relying on primary data collected through a structured questionnaire based on a Likert scale (Strongly Disagree to Strongly Agree). Secondary data sources include financial reports, annual statements, and relevant literature. The stratified random sampling method was employed to ensure proper representation across different UCCS, resulting in a final sample of 120 societies. Data analysis was conducted using statistical techniques such as descriptive statistics, reliability analysis (Cronbach's Alpha), factor analysis (Principal Component Analysis), and Chi-Square tests to assess the significance of asset and liability movement. SPSS software was utilized for data processing and interpretation to derive meaningful insights.

6. Data Analysis

The descriptive statistics provide a deeper understanding of how respondents perceive various aspects of asset and liability management in urban co-operative credit societies. The mean, median, and mode values indicate the central tendency, while standard deviation, skewness, and kurtosis reflect data dispersion and distribution characteristics.

The highest mean score is observed for the statement "The movement of assets in our credit society is well-documented" (3.313), indicating a relatively positive perception of asset tracking. Similarly, "Monitoring the patterns of liabilities movement" has a mean of 3.147, suggesting that many societies actively track liability trends. However, the mode of 5 (Strongly Agree) for both statements reflects that a significant number of respondents perceive these practices as effective.

Table No. 1: Descriptive Statistics of Assets and Liabilities Movement

	Mean	Median	Mode	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
The movement is well-documented	1	5	3.31	1.54	-0.42	0.13	-1.37	0.27
Monitor the patterns of liabilities movement	1	5	3.14	1.57	-0.16	0.13	-1.57	0.27
Strategies aligned with financial goals	1	5	2.97	1.60	0.04	0.13	-1.62	0.27
Use financial analysis tools	1	5	2.84	1.60	0.22	0.13	-1.58	0.27
Policies for asset acquisition and disposal	1	5	2.71	1.57	0.48	0.13	-1.38	0.27
Conduct periodic audits	1	5	2.56	1.45	0.52	0.13	-1.19	0.27
Mechanisms to quickly address imbalances	1	5	2.25	1.37	0.78	0.13	-0.76	0.27
Asset-liability optimized to minimize risks	1	5	2.39	1.42	0.69	0.13	-0.91	0.27
Perform regular reconciliations	1	5	2.51	1.46	0.48	0.13	-1.22	0.27
Established guidelines for asset and liability ratios	1	5	2.81	1.63	0.23	0.13	-1.59	0.27
Use historical data to predict future trends	1	5	2.85	1.64	0.14	0.13	-1.65	0.27
System to evaluate the impact of new assets and liabilities	1	5	2.81	1.39	0.07	0.13	-1.39	0.27
Maintains record of asset and liability changes	1	5	2.87	1.46	0.09	0.13	-1.43	0.27
Update asset and liability strategies based on trends	1	5	2.83	1.43	0.10	0.13	-1.41	0.27
Conducts impact analysis for significant changes	1	5	2.21	1.37	0.91	0.13	-0.53	0.27

***Source**: SPSS Output based on Primary Data*

In contrast, the lowest mean is recorded for "Mechanisms to quickly address imbalances between assets and liabilities" (2.253) and "Conducting impact analysis for significant changes" (2.219). This suggests that most respondents believe their credit societies lack sufficient mechanisms to manage imbalances or assess the financial impact of asset and liability changes.

Standard deviation values range from 1.372 to 1.646, indicating moderate variability in responses. Higher standard deviations for statements such as "Use historical data to predict future trends" (1.646) and "Established guidelines for asset and liability ratios" (1.631) suggest diverse opinions, possibly reflecting differences in financial management practices among societies.

Skewness values provide insights into response distribution. Most statements exhibit positive skewness, indicating that a larger portion of responses is concentrated towards disagreement. The highest skewness is seen in "Conducts impact analysis for significant changes" (0.912), emphasizing that very few societies undertake systematic impact assessments. Conversely, statements with slight negative skewness, such as "The movement of assets is well-documented" (-0.426), indicate a relatively balanced distribution, with more respondents favouring agreement.

Kurtosis values for most statements are negative, indicating a flatter distribution compared to a normal curve. This suggests that responses are more spread out rather than concentrated around the mean. The most negative kurtosis is observed for "Use historical data to predict future trends" (-1.654), highlighting a wide range of opinions on predictive financial management.

Table No. 2: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
.538	.521	15

***Source**: SPSS Output based on Primary Data*

The Cronbach's Alpha for the 15 items related to assets and liabilities movement is 0.538, indicating moderate internal consistency. A reliability coefficient above 0.7 is generally considered acceptable, while values between 0.5 and 0.7 suggest moderate reliability. The standardized Cronbach's Alpha (0.521) is slightly lower, confirming that the items are somewhat correlated but may not be highly consistent across all responses.

Table No. 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.992	26.613	26.613	3.992	26.613	26.613
2	2.914	19.428	46.040	2.914	19.428	46.040
3	2.051	13.675	59.716	2.051	13.675	59.716
4	1.010	6.735	66.451	1.010	6.735	66.451
5	.959	6.396	72.847			
6	.849	5.658	78.505			
7	.767	5.115	83.619			
8	.582	3.882	87.502			
9	.505	3.368	90.870			
10	.343	2.287	93.157			
11	.313	2.084	95.241			
12	.273	1.820	97.060			
13	.207	1.379	98.440			
14	.166	1.106	99.546			
15	.068	.454	100.000			

Extraction Method: Principal Component Analysis.

***Source**: SPSS Output based on Primary Data*

The Principal Component Analysis (PCA) reveals that the first four components have eigenvalues greater than 1, explaining 66.45% of the total variance. The first component alone accounts for 26.61%, indicating that it is the most significant factor in the dataset. The second and third components contribute 19.43% and 13.68%, respectively, while the fourth adds 6.73% to the cumulative variance.

Since only the first four components have eigenvalues above 1.0, they are retained for further analysis. The remaining components explain minimal variance, making them less significant. This suggests that asset and liability movement in urban co-operative credit societies can be grouped into four key dimensions, which likely capture critical aspects of financial monitoring, risk management, and strategic decision-making.

Table No. 4: Chi-Square Test

	Chi-Square	df	Asymp. Sig.
The movement is well-documented	66.813	4	.000
Monitor the patterns of liabilities movement	50.188	4	.000
Strategies aligned with financial goals	46.469	4	.000
Use financial analysis tools	65.563	4	.000
Policies for asset acquisition and disposal	113.656[a]	4	.000
Conduct periodic audits	82.250[a]	4	.000
Mechanisms to quickly address imbalances	132.031[a]	4	.000
Asset-liability optimized to minimize risks	89.281[a]	4	.000
Perform regular reconciliations	62.719[a]	4	.000
Established guidelines for asset and liability ratios	64.375[a]	4	.000
Use historical data to predict future trends	67.250[a]	4	.000
System to evaluate the impact of new assets and liabilities	42.281[a]	4	.000
Maintains record of asset and liability changes	19.000[a]	4	.001
Update asset and liability strategies based on trends	28.094[a]	4	.000
Conducts impact analysis for significant changes	149.781[a]	4	.000

a. 0 cells (0.0%) have expected frequencies less than 5.
The minimum expected cell frequency is 64.0.
***Source**: SPSS Output based on Primary Data*

The Chi-Square test was conducted to determine whether the responses regarding assets and liabilities movement were statistically significant. The results show that all variables have p-values (Asymp. Sig.) of 0.000, indicating a highly significant relationship at the 5% significance level. This suggests that the observed responses differ significantly from expected distributions, confirming strong variations in how credit societies manage their assets and liabilities.

Notably, statements such as "Mechanisms to quickly address imbalances" ($\chi^2 = 132.031$) and "Conducts impact analysis for significant changes" ($\chi^2 = 149.781$) exhibit the highest chi-square values, implying strong divergence in respondents' opinions. Meanwhile, "Maintains record of asset and liability changes" ($\chi^2 = 19.000$, $p = 0.001$) has the lowest chi-square value, indicating relatively lesser variation.

7. Hypothesis Testing

The hypothesis testing examined whether asset and liability movement significantly impacts financial risk management in Urban Co-operative Credit Societies (UCCS). Reliability analysis (Cronbach's Alpha = 0.538) showed moderate consistency. The Chi-Square test results were statistically significant ($p < 0.05$), indicating a strong relationship between asset-liability movement and financial risk management. Descriptive statistics and Principal Component Analysis (PCA) showed that four key components explained 66.451% of total variance. Based on these findings, the null hypothesis (H_0) was rejected, confirming that asset and liability movement significantly influences financial risk management in UCCS.

8. Key Findings

The key findings of the study on asset and liability movement in Urban Co-operative Credit Societies (UCCS) are as follows:

i. **Asset and Liability Documentation** – A significant portion of the societies (over 50%) reported having well-documented asset and liability movements, but a notable percentage lacked systematic documentation.
ii. **Financial Monitoring and Strategy Alignment** – While some societies actively monitor liabilities and align strategies with financial goals, nearly one-third struggle with proper financial analysis tools and strategic implementation.
iii. **Risk Management Challenges** – Many societies lack efficient mechanisms to quickly address asset-liability imbalances, posing risks to financial stability. The Chi-Square test confirmed a significant association between asset-liability movement and financial risk management.
iv. **Periodic Audits and Compliance** – Less than half of the societies conduct regular audits and reconciliations, indicating gaps in internal controls and compliance.
v. **Impact Analysis and Adaptation** – Many societies fail to update their asset and liability strategies based on market trends or conduct proper impact analyses for financial decision-making.

Overall, the study highlights the need for improved financial monitoring, risk management mechanisms, and strategic adjustments to enhance the financial health of UCCS.

9. Recommendations

Based on the study's findings, the following recommendations are proposed to enhance the financial risk management and overall efficiency of UCCS:

i. **Strengthening Asset and Liability Documentation** – UCCS should implement standardized documentation systems to ensure accurate tracking of asset and liability movements, enhancing financial transparency and decision-making.
ii. **Improving Financial Analysis and Monitoring** – Societies must adopt advanced financial analysis tools and regularly assess their asset-liability structure to align strategies with financial goals and mitigate risks effectively.
iii. **Enhancing Risk Management Mechanisms** – Developing robust mechanisms to address asset-liability imbalances promptly will help reduce financial instability. This includes setting risk thresholds and implementing corrective actions as needed.
iv. **Conducting Regular Audits and Compliance Checks** – Periodic internal and external audits should be mandated to ensure accurate financial reporting and compliance with regulatory standards, reducing the risk of mismanagement.
v. **Adapting to Market Trends** – Societies should continuously review and update their asset and liability management strategies based on changing financial and economic conditions, ensuring long-term sustainability and competitiveness.

By implementing these recommendations, UCCS can strengthen their financial health, improve risk management, and enhance their ability to serve members effectively.

10. Conclusion

The study on asset and liability management in Urban Co-operative Credit Societies (UCCS) highlights the critical role of financial risk management in ensuring their long-term sustainability. The findings indicate that proper documentation, regular monitoring, and strategic alignment of assets and liabilities are essential for minimizing risks and enhancing financial stability. The results from statistical analyses, including Chi-Square tests and factor analysis, confirm the significant impact of asset and liability movement on financial risk management.

Despite challenges such as inadequate financial tools, lack of periodic audits, and ineffective risk mitigation strategies, UCCS can improve their operations through better compliance, technological integration, and proactive financial planning. Implementing structured asset-liability strategies and adapting to market trends will help these societies remain competitive in the evolving financial landscape. Overall, the study reinforces the need for effective asset and liability management practices to ensure the financial resilience and growth of UCCS in Solapur District.

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