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Assessing Financial Management Practices and Accounting Mechanisms in Agricultural Cooperatives: A Case Study From Nepal

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The study focuses on assessing the financial management practices and accounting mechanisms in agricultural cooperatives in Tulsipur Sub-Metropolitan, Dang District, Nepal with a focus on understanding their implications for financial performance and organizational effectiveness. The sample size of total cooperatives (n = 46) was divided into Savings and Credit Cooperatives (n = 18) and Multipurpose Cooperatives (n = 28), respectively, with a total number of respondents (n = 138) categorized into managing directors, employees, and general members. Using a mixed-methods approach that combines quantitative analysis of financial data with qualitative insights gathered through interviews and surveys, the study emphasizes the importance of modern financial practices, improved reporting mechanisms, and relevant staff training for long-term sustainability. Recommendations include the integration of criteria and evaluation tools to assess cooperative performance, with Hamro Pahunch Multipurpose Cooperative identified as a high performer. Emphasizing the need for robust financial management strategies to navigate the complexity of the agricultural sector, manage risks, and achieve sustainable development, the study notes frequent preparation of financial management reports on a monthly and annual basis, and predominantly annual accounting management. Most cooperatives are using computerized models to present financial positions, but face challenges such as lack of marketing infrastructure, cooperative skills, and technical support. Ultimately, the study advocates for educating policy makers, cooperative leaders, practitioners and stakeholders on the role of effective financial management and accounting in enhancing the resilience, expansion and socio-economic impact of agricultural cooperatives, thereby fostering their long-term prosperity and viability as drivers of rural development and empowerment.

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Introduction

Financial management is the process of planning, organizing, procuring, and utilizing an organization's financial resources in a manner that aligns with the aspirations of its members (Adepoju, 2007). The financial management practices and accounting mechanisms employed by these cooperatives significantly impact their financial performance and sustainability (Bamidele & Ibrahim, 2018). In the realm of financing accounting, cooperatives stand out as unique entities driven by the principles of self-help, equality, and solidarity. Unlike traditional businesses that primarily focus on profit maximization, cooperatives prioritize the well-being of their members. This distinctive approach to business necessities a specialized and tailored approach to financial accounting. Financial reports in cooperatives serve a dual purpose: they act as essential tools for management and as mechanisms for members to evaluate the cooperative's performance. These reports play a pivotal role in promoting transparency and accountability and informed decision-making within the cooperative's governance structure (Susandya et al., 2018). The statement suggests that a solid understanding of how accounting figures behave is a cornerstone of effective managerial accounting, playing a crucial role in supporting financial decision-making within organizations (Ascani et al., 2021; Weygandt et al., 2018).

Management accounting plays a critical role in decision making since it supplies accounting information that would be helpful to managers in making critical decisions for an organization (Alrawashedh, 2023). Existing literature emphasizes the importance of sound financial management practices and accounting systems in enhancing the performance and sustainability of agricultural cooperatives. The strength of institutional and organizational arrangements plays a crucial role in maintaining sound control mechanisms within cooperatives. When these arrangements are weak or poorly developed, there's a higher likelihood of deviations from sound institutional control mechanisms (Yobe et al., 2020). Studies by Paudel (2023) highlight the role of financial transparency and accountability in improving cooperative governance and member trust. To mitigate the risks, cooperatives must prioritize the development of strong institutional and organizational arrangements which includes implementing clear governance structures, establishing transparent policies and procedures, fostering a culture of accountability, promoting effective communication channels, and providing ongoing training and support to members and managers. By strengthening these foundations, cooperatives can better safeguard against deviations from sound institutional control mechanisms and uphold their integrity and effectiveness (Yobe et al., 2020). In this background, agricultural cooperatives play a vital role in promoting rural development and enhancing the livelihoods of farmers in Nepal. However, there is a lack of research specifically focusing on the financial management practices and accounting mechanisms in agricultural cooperatives of Dang District, Nepal. This research aims to assess the financial management practices and accounting mechanisms in agricultural cooperatives of Dang District, Nepal, with a focus on understanding their implications for financial performance and organizational effectiveness. The study seeks to address this gap and contribute to the existing studies on cooperative finance, financial management, and financial reporting mechanisms.

Study Contexts

In Tulsipur Sub-Metropolitan City, Dang District, Nepal, a range of development activities in agriculture, small industry marketing and processing, distribution and supplies are now facilitated through co-operatives.

These cooperatives, including e.g., dairy, on and off-farm agriculture cooperatives, play a vital role in driving economic growth and fostering community development in the region. In Nepal, cooperatives are primarily classified into two main categories: Savings and Credit Cooperative (SCC) and Multipurpose Cooperatives (MC) (Dhakal & Mueser, 2023). Saving and Credit Cooperatives focus on providing financial services such as saving accounts, credit facilities, and financial literacy to members. On the other hand, Multipurpose Cooperative offer a broader range of services, including agriculture support, marketing assistance, and community development initiatives. This categorization of cooperatives reflects the diverse needs and functions of cooperative members in Nepal.

The concept of agricultural cooperatives refers to the conventional classification of cooperatives (Sharma, 2020). Nepal has a long cultural tradition of informal community-based co-operatives including savings and credit associations known as *Dhikuti*, and grain savings system like *Dharma Bhakari*, labor exchange mechanism systems such as *Parma*, and socio-cultural forums like *Guthi* play a significant role in fostering social cohesion and economic resilience within Nepalese communities (Patani, 2021). This system not only promotes financial inclusion and access to credit but also embodies the essence of community collaboration, cooperation in agriculture activities, fostering collective financial well-being, social bonds, and a sense of shared responsibility of cooperative actions. Many of these traditional systems of cooperation are still functioning in the rural areas of Nepal (NEFSCUN, 2022). In Nepal, the government has endorsed savings and credit co-ops since 1953 as a means of facilitating access to financial services for underprivileged and rural populations not served by traditional banks and financial institutions (Paudel, 2021).

Saving and Credit Cooperatives play a vital role in promoting the savings habits, mobilizing financial resources, and providing access to affordable credit for productive business ventures in Nepal. As highlighted by Dhakal (2019), the significance of Saving and Credit Cooperative in Nepal cannot be overstated. In a country where income level is modest, spending patterns are impulsive, and individuals are vulnerable to exploitation by private moneylenders; these cooperatives serve as crucial financial institutions that empower communities and foster economic resilience. On the other hand, a multi-purpose cooperative is a business that is a mixture of two or more different types of cooperatives. Multipurpose Cooperatives are member-based organizations for agricultural farmers in rural communities (ICA, 1995). It is an association of farmers and other rural households who have voluntarily joined together to fulfill a common socio-economic objective (basically raising income) by undertaking suitable business activities, making contribution to the capital required and accepting fair share of the risks and benefits of the business according to the principles of cooperation as reformulated by ICA (Poudel et al., 2015). They are channels for community participation in economic development, enabling members to coordinate their efforts and gain economic benefits (Masuku et al., 2016). Multipurpose Cooperatives are associations of primary producers who have come together to achieve some common commercial objectives more successfully than they could as individuals such as marketing their produce, purchasing farm supplies, purchasing consumer goods for sale, sharing equipment, or supplying services such as storage or transport (Masuku et al., 2016).

Nepal has the intention to enhance economic growth in order to graduate to a middle-income country by 2030 (COPAC, 2015), and Nepalese policymakers believe that cooperatives will contribute substantially to the national economy by mobilizing saving and credit in the semi-urban and rural areas of the country, where the banks and other financial institutions have limited or no access (Paudel & Acharya, 2022). These cooperatives, as unique socio-economic entities, play a pivotal role in fostering community development, economic sustainability, and social well-being. These organizations, guided by principles of cooperation and member-driven initiatives, engage in various activities to meet the needs of their members. The study conducted by Sayadi et al. (2019) and Suryani (2021) reflects the transformation of management accounting from a narrow focus on financial data to a more expansive approach that incorporates a diverse range of both financial and non-financial information for improved decision-making and strategic management. This shift recognizes the importance of not only financial metrics, but also factors such as customer satisfaction, employee engagement and expectations, technological advances, competition, regulatory changes, environmental impact, and more in guiding organizational strategies and decision making (Akpan & Oluwagbade, 2024). This evolution requires a broader understanding of and response to the latest trends and technologies to contribute to organizational success and sustainability.

Literature Review

Accounting Functions of Cooperatives: Fostering Transparency, Accountability, and Sustainable Growth

Accounting functions within cooperatives are indispensable, serving as a cornerstone for financial management, transparency, and accountability which emphasize their significance in promoting sustainable growth and member welfare. Typical accounting functions are crucial for maintaining a competitive advantage in businesses. However, some small and medium enterprises (SMEs) face challenges in handling their accounting functions due to a lack of expertise in this area (Everaert et al. 2006). Reid and Smith (2000) highlighted that accounting information plays a vital role in helping SMEs address short-term challenges related to cost accounting, expenditures, and cash flow. Access to accurate and timely accounting information supports effective monitoring and control within cooperatives. Management accounting plays a crucial role in supporting some functions such as business development management (Abdullah et al., 2022) by relevant financial information, analysis, and strategic guidance to decision-makers within the organization. The management accounting system encompasses data related to financial activities, taxation, and managerial operations. It also incorporates targets, budgets, and forecasts to facilitate strategic planning and decision-making (Ostaev et al., 2020, 2022). Furthermore, the system is designed to meet the conceptual conditions of the cooperative's activities and takes into account both internal factors and external threats. Overall, the accounting system integrates various data sources and analytical frameworks to support effective management and control of organizational resources in a dynamic business environment.

One of the primary accountings functions of cooperative is the systematic recording and organization of financial transactions which includes documenting income, expenses, assets, and liabilities (USDA, 1998). Accurate record-keeping ensures that cooperatives have a clear understanding of their financial health, enabling informed decision-making. Accounting professionals must prepare budget and financial planning and allocate resource effectively within cooperative works collaboratively with management (Cookey, 2000). A well-structured budget helps in resource allocation, cost control, and achieving financial objectives that align with the organization's goals. Accounting functions involve ensuring compliance with financial reporting standards and regulations which includes the preparation of annual financial statements, tax filings, and other mandatory reports that contribute to the cooperative's transparency and credibility (Johnson, 2003). Establishing robust internal controls is crucial to safeguarding cooperative assets and preventing fraud and mitigating risks, ensuring the reliability of financial information. Cooperatives often undergo internal and external audits to assess their financial integrity (Bhusal, 2023), and enhance the cooperative's reputation and instill confidence in members and external partners. Cooperative must ensure financial considerations as integral to the cooperative's strategic initiatives by providing financial insights and forecasts in a regular basis (Bhusal, 2023).

Financial Management Practices in Agriculture Cooperatives

Financial management practices in agricultural cooperatives encompass a range of activities and strategies designed to effectively manage financial resources, optimize performance, and ensure the sustainability of cooperative operations (Von Pischke & Rouse, 2004). These practices are essential for agricultural cooperatives to fulfill their mission of serving members, increasing agricultural productivity, and contributing to rural development. Governance—particularly for agricultural cooperatives—is an alternative to improve processes and relationships with partners, employees, and the community (Al-Bassam et al., 2018). Good cooperative governance practices create value for cooperative organizations by increasing administrative transparency, promoting development and competitiveness, stimulating cooperative members' participation in decision-making, and leading to better economic and financial results (Basterretxea et al., 2020). Adherence to good governance practices is relevant to promote the sustainable development of cooperative organizations, strengthen them in the market, and reduce conflicts of interest (Marcis et al., 2018). The literature has consolidated agency problems as the main cause of conflicts (Jensen & Meckling, 1976). The issue is widely discussed in traditional capitalist firms, where the separation of ownership and management creates large information asymmetries (Da Silva et al., 2022; Marcis et al., 2018). However, this approach cannot be extrapolated in the same way to traditional firms without considering the specificities of a cooperative (Costa & Melo, 2017). The governance structure suggested by the support and regulatory bodies consists of cooperatives represented by the general assembly, the administrative/executive board, the fiscal council, the advisory council, the technical committee, the social committee, and the management (Marcis et al., 2018). The implementation of good governance practices is relevant to promote the sustainable development of cooperative organizations, strengthen them against the market, and reduce conflicts of interest (Maciel et al., 2018) as well as to attract investment by reducing exposure to risk (Bijman & Iliopoulos, 2014).

Cervantes et al. (2023) emphasize the critical importance of financial management practices for agricultural cooperatives. These practices serve as foundational elements for navigating the intricacies of the agricultural sector, mitigating financial risks, seizing growth opportunities, and ultimately attaining sustainable development objectives. Qian and Olsen (2021) underscore the transformative potential of sound financial management practices for agricultural cooperatives. Through adoption, these practices enable cooperatives to enhance their resilience, effectiveness, and overall impact. By effectively meeting the needs of farmers, fostering rural development, and enhancing food security, cooperatives play a significant role in boosting economic prosperity within their communities. Collectively, these aspects underscore the vital importance of robust financial management practices for the success and sustainability of agricultural cooperatives, as well as their wide-ranging positive social and economic impacts.

Accounting Mechanisms in Agriculture Cooperatives

Accounting mechanisms in agricultural cooperatives are essential tools for recording, analyzing, and reporting financial transactions and information (ICA, 2015). These mechanisms provide cooperative members, management, stakeholders, and regulators with accurate and reliable financial information that enables informed decision-making, accountability, and transparency (Paudel, 2023). Accounting mechanisms are integral to the financial management and governance of agricultural cooperatives, enabling them to maintain accurate financial records, comply with legal and regulatory requirements, and make informed decisions in support of their mission to serve members and promote rural development (Turtianen & Von Pischke, 1982). Accounting mechanisms play a critical role in the financial management of agricultural cooperatives. By using tools such as double-entry bookkeeping, income statements, balance sheets, cash flow statements, budgeting and forecasting, cost accounting, internal controls, compliance and reporting, and management information systems (MIS), agricultural cooperatives can ensure transparency and accountability in their financial operations (USDA, 1998). These mechanisms help set clear financial goals, provide a detailed view of the cooperative's assets, liabilities, and equity, and evaluate performance against predetermined targets (Chesnick, 2000).

Financial statements are fundamental components of cooperative reporting including the balance sheet, income statement, and cash flow statement, offer a detailed view of the cooperative's financial health (USDA, 1998). Members can assess the allocation of surplus, the cooperative's liquidity, and the value of their individual contributions (Paudel, 2016). The transparent presentation of financial data is consistent with cooperative principles of openness and democratic control. Annual reports go beyond financial data to provide a holistic view of the cooperative's accomplishments, challenges, and future plans. They also facilitate regulatory compliance and enable accurate reporting to regulators and stakeholders. Chesnick (2000) emphasized the importance of accounting mechanisms in improving decision-making processes within agricultural cooperatives. These mechanisms are essential as they offer timely and pertinent financial information to decision-makers. When agricultural cooperatives implement such mechanisms, they not only reinforce their financial management practices but also advance their overarching mission of serving members and fostering rural development.

Factors Influencing Financial Management and Accounting Practices

Several factors influence financial management and accounting practices in agricultural cooperatives, shaping how these organizations manage their finances, report financial information, and make strategic decisions (Pokharel et al. 2019). Understanding these factors is critical for cooperatives to develop effective financial management strategies and accounting mechanisms. Financial accounting is concerned with recording financial transactions and analyzing the effects of such transactions to support the development of business decisions. The effectiveness of an accounting system is not solely determined by the accuracy of record-keeping but also by its ability to cater to the informational needs of both internal and external decision-makers (Maseko & Manyani, 2011). Typically, the financial overview comprises two components: one revealing profit or loss through the income statement and the other detailing assets and liabilities via the balance sheet (Amoako, 2013). Research by Ntim Adjei (2014) indicated that SMEs and identified cooperatives usually maintain at least one accounting system to record transactions and implement various accounting controls for operational ease. The overall accounting system of SMEs and identified cooperatives are influenced by critical factors such as the size and age of the firm, as well as the employment of accounting staff. The argument put forth by N. Marriott and P. Marriott (2000) emphasizes the need for professional accountants to evolve their services by embracing graphical presentations and providing commentary and interpretation alongside numerical data. This approach aims to enhance the communication of financial information, providing stakeholders with a more nuanced understanding of an organization's financial performance and position

The status of cooperatives in Nepal, coupled with their constitutional recognition as the third pillar of the economy, places a substantial responsibility on the cooperative movement, as highlighted by Paudel (2022). The reference to Paudel (2023) suggests a focus on assessing the transparency of Nepalese cooperative societies through a comprehensive evaluation that includes factors like credit default risk, leverage risk, liquidity risk, investment risk, and overall financial management practices. This indicates a broader examination of the financial health and risk management strategies employed by cooperative societies in Nepal. Transparency in cooperatives is crucial for building trust among members, fostering a sense of ownership, and aligning the cooperative's activities with its values and objectives. The question of how co-operatives conduct their accounting and the implications this has on aligning more effectively with their economic, social, and cultural goals has often been overlooked. Existing accounting and accountability practices frequently fail to reflect the values and principles of co-operatives, hindering their ability to fulfill their purposes. This paper aims to emphasize the need for a more systematic approach to accounting and reporting for co-operatives, focusing on the specific aspects that justify the development of accounting practices and a reporting system in agricultural cooperatives in Nepal. The study aims to conduct a comprehensive analysis of financial accounting and management practices, reporting mechanisms, and internal controls utilized by cooperatives. It focuses specifically on agricultural cooperatives located in Tulsipur Sub-Metropolitan City, Dang District of Nepal, with the objective of enhancing financial transparency and accountability within these organizations. Additionally, the study seeks to identify and understand the challenges encountered by agricultural cooperatives in implementing effective financial management practices and accounting procedures. By examining these challenges, the study aims to provide insights that can inform strategies to address barriers to financial management effectiveness within agricultural cooperatives in the region.

Methods and Methodology

Study Area

The location of the study conducted is Tulsipur Sub-Metropolitan City (SMC) which comprises a wide range of Small Agriculture Based Enterprises (SABEs) ranging from Savings and Credit Cooperatives, Agriculture Cooperatives, Dairy Cooperatives, Forestry Cooperatives, and so on. Apart from the Savings and Credit Cooperatives, all other cooperatives that have similar benefits based on their respective products were categorized as Multipurpose Cooperatives. Thus, the study area is termed as conventional Savings and Credit Cooperatives and modern as Multipurpose Cooperatives. Tulsipur SMC has a total of 167 cooperatives. A total of 46 cooperatives were identified as our focal unit, which includes both Savings and Credit Cooperatives (n = 18) and Multipurpose Cooperatives (n = 28). The selection process (i.e., screening) is done using purposive sampling with knowledge of secondary data. The screening was done based on the performance of the cooperatives and the statistics were obtained from Tulsipur SMC Chamber of Commerce and Tulsipur SMC Office of Administration. Within each sample, the respondents were categorized as managing director, employee, and general member and their differentiation in knowledge is accustomed with different understanding of the financial mechanism of the cooperatives. A total of 138 responses were collected.

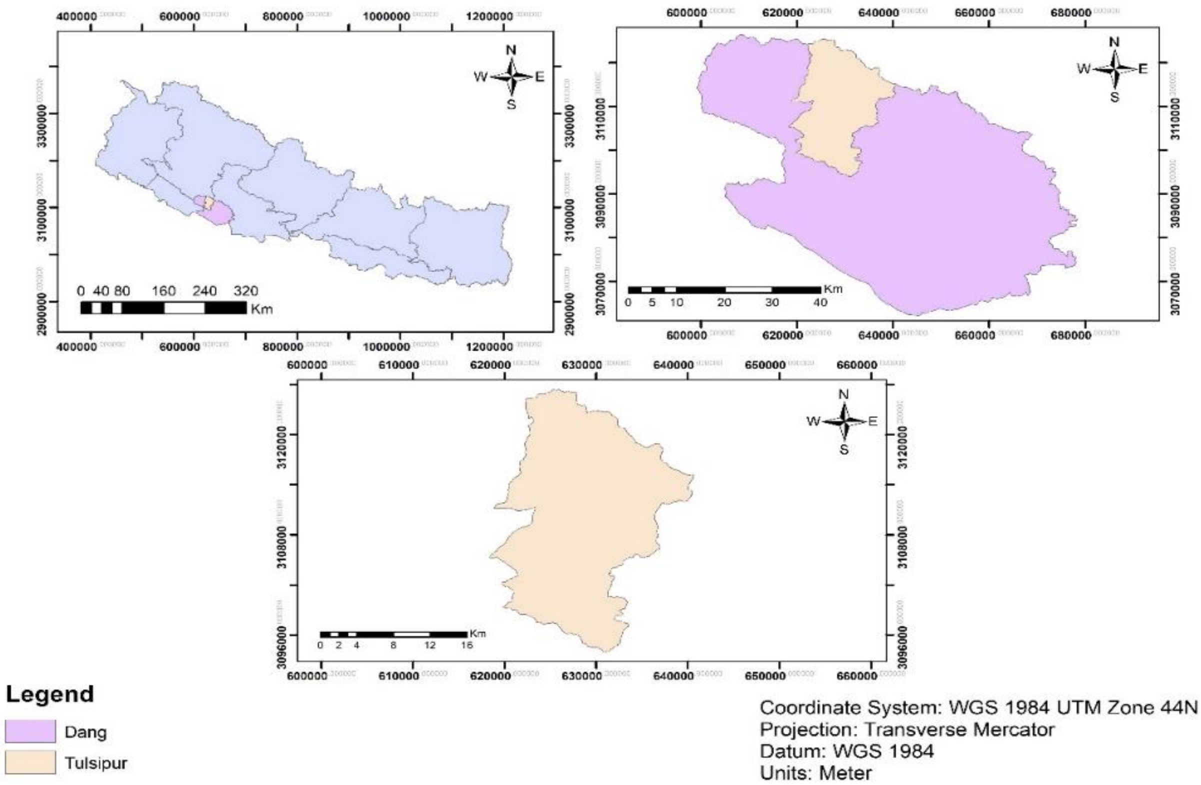

Figure 1. Study area.

Data Collection

A semi-structured questionnaire was developed prior to the screening of the cooperatives, and after the screening, these questionnaires were used to collect data from the target respondents. The questionnaire was equipped with general information regarding the cooperatives, and financial supporting statements that comply with delving into the financial mechanism of the cooperatives. Use of purposive sampling was employed in deliberately choosing specific individuals based on categorical criteria (namely, member of the board of members, employee, and general member) that are relevant to the research questions.

Data Analysis

Financial management and accounting reporting mechanism. The financial mechanism of the cooperative was assessed based on seven criteria, namely, governance and leadership, financial planning and budgeting, resource mobilization and capital management, financial risk management, financial reporting and transparency, internal controls and compliance, and financial performance evaluation. Similarly, the cooperative's accounting mechanisms were evaluated in the areas of financial reporting, internal control systems, budgeting and cost accounting, inventory management and valuation, asset management and depreciation, financial analysis and performance evaluation, and external audit and reporting. The Cooperative Department of the local government was approached to infer the financial performance of the cooperatives. The executive broad members (n = 46) from Table 1, stakeholders who have handful knowledge about the financial mechanism of the cooperative, and the cooperative section officer of the local government were asked to rank their cooperative on these criteria and the weighted mean average was calculated.

Table 1

Cross Tabulation Between Types of Cooperatives and Position in the Cooperatives

Type of cooperatives	Number of cooperatives	Position in the cooperatives			
		Executive director	Employee	General member	Total
Savings and Credit Cooperative	18	20	18	20	58
Multipurpose Cooperative	28	26	28	26	80
Total	46	46	46	46	138

Quantitative analysis of financial reporting and management accounting practices. The comprehensive analysis for Savings and Credit Cooperatives and Multipurpose Cooperatives was conducted. Frequency distributions (percentages) were calculated for financial accounting reports, management accounting principles, purpose of financial reports, and methods of preparing financial reports. The use of a five-point Likert scale in a questionnaire provided a structured and quantitative approach to measuring perceptions. Additionally, secondary literature was coded, entered, and analyzed using both exploratory and confirmatory statistical techniques in SPSS.

Results

General Description of the Respondents

Cross tabulation was used to assess the frequency distribution of the respondents in terms of types of cooperatives and the position of the respondents in the respective cooperatives. Multipurpose Cooperatives that the researcher surveyed comprised of diary cooperatives, agricultural and agroforestry cooperatives, smallholder agricultural cooperatives, user cooperatives, and registered multipurpose cooperatives, while Savings and Credit Cooperatives included only those cooperatives that operate on the basis of financial transactions. A total of 138 respondents were interviewed which was categorized into three categories, viz., member of the executive board labeled as executive director, employee working as full-time staff in the cooperatives labeled as employee, and general member who were present in the cooperatives for their transaction now of interview in the cooperatives labeled as general members. This respondent stratification was done to ensure how comprehensive and robust understanding the members of the board member, employee, and general members carry around about the financial management practices and how it relates with the financial position of the cooperatives.

Financial Accounting Mechanism

Performance evaluation of cooperatives through financial management assessment. The majority of multipurpose cooperatives were found to be underperforming in terms of resource mobilization and capital management. Savings and Credit Cooperatives in general were found to be prominent in financial reporting and transparency and financial planning and budgeting. The table above shows that the trends in the performance of cooperatives in meeting these criteria have thinned out over time, as cooperatives have been the hubs of financial transactions in previous years and decades, leaving banks behind in annual transactions. Hamro Pahunch Multipurpose Cooperative Limited was found to be one of the high performing cooperatives of Tulsipur as it resonates with every criterion of financial transaction there was. On the other hand, Shiv Shikar Multipurpose Cooperative Limited was found to be the worst performing cooperative of Tulsipur and was found to be on the verge of existential crisis. Various Multipurpose and Savings and Credit Cooperatives were also found to be performing on a moderate scale and were looking for some support and aids to win-over this economic crisis prevailing in the country as well as global context.

Table 2

Assessment of Cooperatives Based on Their Performance of Financial Management

Financial management practices	Key features	Performance of few cooperatives		
		Low	Medium	High
Governance and leadership	Ensure democratic decision-making and member representation, oversee financial affairs and strategic direction, improve financial literacy and management skills	Sarbottam MC, Tulsipur SCC, Shiva Shikar MC	Siddeshwori Women SCC, Ananti Smriti Agriculture MC, Baikalpik SC	Hamro Pahunch MC, Siddeshwori Women SCC Srijana Women SCC
Financial planning and budgeting	Develop comprehensive financial plans and budgets, forecast revenues, expenses, cash flows, and capital requirements, monitor actual financial performance against budgeted targets, and make adjustment plan	Miteri SCC Balapur Janakrishna MC, Swajan MC	Darpan Agriculture MC, Ekata SCC, Mahila Utsali SCC	Hamro Pahunch MC, Guru, Rapti SCC, Srijana Women SCC
Resource mobilization and capital management	Member dues, retained earnings, loans, grants, and external financing sources, ensure adequate liquidity for day-to-day operations and investment in productive assets	Dipak Smriti User MC, Fulwari Agriculture MC, Shiva Shikar MC	Janasewa SCC, Hamro Rajakot MC, Darpan Agriculture MC	Hamro Pahunch MC, Rapti SCC, Tulsi Consumers MC
Financial risk management	Stratification of risk into market risk, credit risk, operational risk, and regulatory risk. Implement risk mitigation strategies such as diversification, insurance, and contingency planning, establish internal controls, risk management policies and procedures to safeguard assets, ensure compliance with regulatory requirements	Shiva Shikar MC, Shanti Agriculture and Forest MC, Somnath Agriculture MC	Balapur Janakrishi MC, Saksi SCC Rara SCC	Hamro Pahunch MC, Baba MC, Saune Pani Agriculture MC
Financial reporting and transparency	Income statements, balance sheets, cash flow statements, and other financial reports, comply with accounting standards, regulatory requirements, and auditing, communicate financial performance, risks and prospects	Shiva Shikar MC, Sriram Agriculture MC, Rasta Sebak MC	Jyoti Mahila SCC, Janasewa SCC,	Hamro Pahunch MC, Rapti SCC, Tulsi Consumers MC
Internal controls and compliance	Safeguard assets, prevent errors and irregularities, and ensure compliance with laws, regulations, and company policies, segregate duties, establish approval procedures, and conduct periodic reviews and audits to identify and mitigate control deficiencies	Shiva Shikar MC, Pabitra Agriculture MC, Komal Pokhari Agriculture MC	Sahayogi SCC, Saksi SCC, Ekata SCC	Hamro Pahunch MC, Srijana SCC, Tulsi Consumers MC
Financial performance evaluation	Monitor key financial performance indicators (KPIs) such as profitability, liquidity, solvency, efficiency, and growth metrics, use financial analysis tools and techniques such as ratio analysis, trend analysis, and variance analysis to interpret financial results	Shiva Shikar MC, Harchali MC, Manakamana Mil MC	Tulsipur AF enterprise MC, Jyoti Mahila SCC, Mahila Utsali SCC	Hamro Pahunch MC, Sahayogi SCC, Miteri SCC

Evaluating periodic reporting and management practices. In a cooperative system, financial management mechanisms play a crucial role in effectively planning, controlling, and monitoring operations. They provide valuable insights for decision making, resource allocation, and performance evaluation, ultimately contributing to the financial sustainability and overall success of the cooperative. The cooperatives expressed particular interest in the frequency of reporting and the perceived usefulness of various financial statements, with a particular focus on the frequency of preparing financial reports and the usefulness of income statements, balance sheets, and cash flow statements. To assess these practices, the cooperative was operationally investigated using five different financial management mechanisms assessment tools: budget, cash budget, procurement budget, cost volume profit, and variance analysis and compared with different temporal period. The majority of respondents believed that these financial management practices are executed annually, followed by monthly tracking. However, it's worth noting that some respondents lacked knowledge about management accounting practices within their respective cooperatives. This suggests that general members may not be fully aware of the financial and management mechanisms in place. Interestingly, as shown in Table 3, most of the management accounting practices were conducted at the end of the fiscal year, emphasizing year-round financial transactions that contribute to effective financial management and decision-making within the cooperatives. These variables are crucial in determining the flexibility of accounting practices across different cooperatives.

Table 3

Management Accounting Practices

Management accounting practices	Types	Management accounting (%)				
		Monthly	Quarterly	Semi-annually	Annually	No idea
Budget	SCC	5.4	7.3	5.5	63.6	18.2
	MPC	15.9	9.8	6.1	43.8	24.4
Cash budget	SCC	8.9	12.5	1.8	51.8	25
	MPC	6.2	3.7	3.7	65.4	21
Production budget	SCC	19.6	1.8	1.8	52.8	24
	MPC	30.9	4.9	2.5	35.8	25.9
Cash volume profit analysis	SCC	16.1	1.8	1.8	44.6	35.7
	MPC	23.8	2.5	1.3	31.3	41.1
Variance analysis	SCC	8.9	3.6	3.6	44.6	39.3
	MPC	10	7.5	6.3	38.8	37.4

Accounting Mechanism of Cooperatives

Evaluating cooperative performance via accounting mechanism assessment. The accounting mechanisms of the surveyed cooperatives are studied under seven different criteria, namely, financial reporting, internal control systems, budgeting and cost accounting, inventory management and valuation, asset management and depreciation, financial analysis and performance evaluation, external audit and reporting. Those cooperatives that have shown tremendous achievement in terms of financial management performance were also found to have high performance in the accounting mechanism. This suggest a strong correlation between effective management and robust accounting practices. The cooperative market in the Tulsipur area is characterized by a few cooperatives that significantly influence the overall economic performance of the urban city. However, some cooperatives that underperformed in the financial management category have improved when considering the accounting mechanism. Notable example includes Ananti Smriti Agriculture Cooperative Limited and Garima Multipurpose Cooperative Limited. Hamro Pahunch Multipurpose Cooperative Limited stands out in the accounting mechanism of cooperatives aligning it as one of the successful and promising cooperatives in Tulsipur.

Table 4

Assessment of Cooperatives Based on Their Performance of Accounting Mechanism

Accounting mechanisms	Key features	Performance		
		Low	Medium	High
Financial reporting	Preparation of financial statements, including income statement, balance sheet, statement of cash flow, compliance with accounting standards and regulatory requirements	Shiva Shikar MC, Shanti Agriculture and Forest MC, Somnath Agriculture MC	Baikalpik SCC, Ekata SCC, Ananti Smriti Agriculture MC	Hamro Pahunch MC, Siddeshwori Women SCC, Srijana Women SCC
Internal control systems	Safeguarding assets, preventing fraud, and ensuring the accuracy and reliability of financial information, preventing errors and irregularities, authorization procedures	Samjana MC, Balapur Janakrishna MC, Bhagya Agriculture MC	Darpan Agriculture MC, Sahara SCC, Mahila Utsali SCC	Hamro Pahunch MC, Miteri SCC, Guru Baba MC
Budgeting and cost accounting	Plan and control of financial activities, allocation of resources, and achievement of cooperative goals, analyze costs associated with production, marketing	Satyashwori Mahila SCC, Harchali MC Komal Pokhari Agricutlure MC	Janasewa SCC, Hamro Rajakot MC, Garima MC	Hamro Pahunch MC, Miteri SCC, Saune Pani Agriculture MC
Inventory management and valuation	Recording and monitoring inventory of agricultural inputs, products, and supplies. Perform periodic inventory counts and reconciliations to ensure the accuracy and reliability of inventory records, identify discrepancies, and prevent loss or theft	Sarbottam MC Limited, Goltakuri Mahila Sana Kishan Agriculture MC, Tulsipur SCC	Balapur Janakrishi MC, Saksi SCC, Rara SCC	Hamro Pahunch MC, Rapti SCC, Miteri SCC
Asset management and depreciation	Accounting for tangible assets, maintain fixed asset records to track asset acquisitions, and determine which expenditures are capitalized as assets and which are expensed as operating expenses	Gauri Bhagwati Agriculture MC, Sriram Agriculture MC, Sarbottam MC	Jyoti Mahila SC, Baba SCC, Ekata SCC	Hamro Pahunch MC, Rapti SCC, Tulsi Consumers MC
Financial analysis and performance evaluation	Ratio analysis to assess the financial health and performance of the coop, including profitability ratios, liquidity ratios, solvency ratios, and efficiency ratios, trend analysis, highlighting areas of strength and areas for improvement	Rasta Sebak MC, Pabitra Agriculture MC, Subha Sandesh SCC	Dipak Smriti User MC, Fulwari Agriculture MC, Mahila Utsali SCC	Hamro Pahunch MC, Srijana Women SCC, Tulsi Consumers MC
External audit and reporting	Engage external auditors, assure stakeholders of their accuracy and compliance with regulatory requirements, provide audited financial statements and reports, cooperative members, lenders, and other stakeholders	Shibalik SCC, Arundoya MC Manakamana Mil MC	Tulsipur Agriculture and Forest Enterprise MC, Jyoti Mahila SCC, Mahila Utsali SCC	Hamro Pahunch MC, Sahayogi SCC, Guru Baba MC

Analyzing financial accounting report preparation practices. Financial accounting practices in agricultural cooperatives play a crucial role in ensuring transparency, accountability, and efficient management of financial resources. The surveyed cooperatives were subjected to a list of questionnaires that mark the financial mechanism reporting pattern of the cooperatives in different time. The cooperative's financial mechanism was quantified into five different categories, namely, profit and loss, balance sheet, cash flow statement, inventory analysis, and fixed asset records. And the cooperative's financial mechanism was measured into four temporal dimensions, viz., monthly, quarterly, semi-annual, annual and yearly. However, the general member might not be fully aware of the financial mechanism, so their lack of knowledge was also acknowledged. The table provided frequency analysis of various financial and accounting activities carried out by the cooperatives. Majority of the cooperatives were found to prepare their financial accounting reports monthly, and a yearly compilation was done at the end of the fiscal year.

Table 5

Frequency of Preparation of Financial Accounting Reports

Financial management practices	Types	Financial accounting (%)				
		Monthly	Quarterly	Semi-annually	Annually	No idea
Profit & loss	SCC	34.1	2.5	15.9	26.8	20.7
	MPC	46.3			40.7	13
Balance sheet	SCC	25.6	9.8	9.7	31.7	23.2
	MPC	33.3	5.6		37	24.1
Cash flow statement	SCC	48.8	6.1	2.4	22	20.7
	MPC	37	5.6		37	20.4
Inventory analysis	SCC	25.5	11	9.8	23.2	30.5
	MPC	25.9	5.6	7.4	35.2	25.9
Fixed assets record	SCC	30.5		6.1	42.7	20.7
	MPC	29.6		3.7	46.3	20.4

Understanding the objectives behind financial report preparation. The primary purpose of any financial accounting institution is to record, summarize, and report financial transactions and events of an organization to provide useful information for decision making by various stakeholders. However, with each cooperative, these may differ in terms of understanding and use case. The respondents were asked about the purpose behind preparation of financial accounting reports. Majority of the respondents i.e. 79.3 percent believed that the elementary reason behind preparing financial report is to understand the financial position of the cooperative. This is followed by another reason which is to present the financial performance and position of the cooperative to the tax office i.e. 10 percent. This will ensure that cooperatives comply with the nationally accepted accounting system and remain a responsible financial institution. Followed by decision making i.e. 0.7 percent, 7.1 percent respondents felt that the main reason for preparing financial report is to carry out all the above reasons.

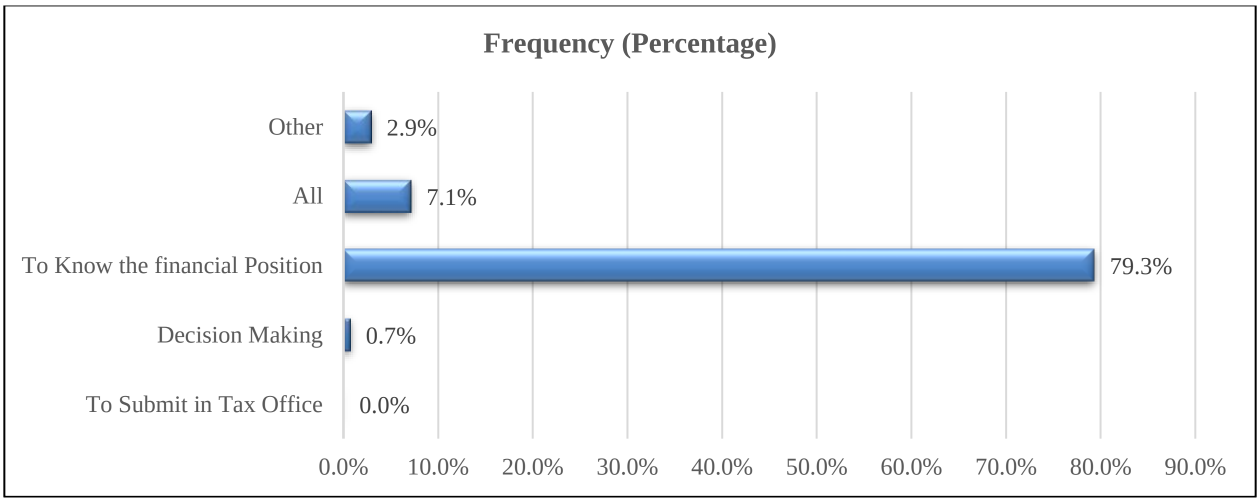

Figure 2. Purpose of preparation of financial report.

Exploring methods for financial report preparation. Any entity involved with financial transactions are entitled with preparation of financial report in terms of their regulatory compliance, transparency, and accountability. The modes of preparation of financial report play an important role to ensure transparency, accountability, accuracy, reliability, consistency, and compliance to effectively fulfill its role in financial reporting.

Table 6

Modes of Preparation of Financial Report

Modes	Percentage
Computerized	43.6%
Manually	15.7%
Both	29.3%
No idea	11.4%

Majority of the cooperatives (43.6%) were found to be using computerized system of data recording and management mechanism. Cooperatives were found using accounting software, online banking, and other financial technologies to automate tasks that resulted in improved accuracy on financial accounting and accountable transactions and provide a real-time financial insight. Cooperatives are moving towards digital management as evidenced by manual record keeping (15.7%), computerized and both (29.3%). Implementing robust accounting systems helps to accurately record and track financial transactions. However, some respondents were still unaware of financial transaction techniques. Coupled with financial literacy and transparency in bookkeeping, a cooperative awareness campaign could address the gaps that persist in cooperatives.

Examining accounting system practices within cooperatives. The distinction between management accounting and financial accounting is often shaped by the unique characteristics and objectives of various types of cooperatives. Cooperatives, as self-autonomous entities dedicated to serving the local community, operate within a distinct accounting framework tailored to their specific goals. This specialized accounting system is designed to effectively utilize resources and time towards achieving cooperative objectives. Unlike traditional for-profit enterprises, cooperatives prioritize communal benefits over individual profit, necessitating accounting practices that reflect this altruistic mission.

Table 7

Mean Significance of Accounting Practices

Accounting system	Types	Accounting practices mean significance				
		Least useful	Less useful	Neutral	Useful	Most useful
Costing system	SCC	3.6	16.1	14.2	30.4	35.7
	MPC	10.7	13.1	13.1	20.2	42.9
Budgeting	SCC	10.7	1.8	17.9	37.5	32.1
	MPC	1.2	7.1	7.1	42.9	41.7
Information for decision making	SCC		3.6	17.9	39.2	39.3
	MPC	3.6	2.4	16.7	32.1	45.2
Performance evaluation	SCC	1.8	5.4	28.5	30.4	33.9
	MPC		1.2	21.4	34.5	42.9
Strategic analysis	SCC		3.6	26.8	46.4	23.2
	MPC		7.1	19	41.7	32.1

The study involved reaching out to respondents from both Savings and Credit Cooperatives as well as Multipurpose Cooperatives to explore the implications of accounting practices. Most respondents expressed a strong belief in the significant usefulness of accounting practices, particularly in areas such as costing, budgeting, decision-making information, performance evaluation, and strategic analysis. Despite the daily conduct of financial transactions within the cooperatives, these respondents identified financial and management accounting practices as crucial components for understanding the financial performance of the cooperatives.

Overcoming Challenges Faced by Cooperatives

Agricultural cooperatives play a critical role in improving the livelihoods of smallholder farmers by promoting collective action and leveraging economies of scale. Despite their importance, these cooperatives face challenges that hinder their growth and limit their ability to reach their full potential. Prior to data collection, a total of 14 constraints were identified. These constraints were then ranked by percentage and categorized into four subgroups: 0-25%, 25-50%, 50-75%, and greater than 75%. The purpose of this classification is to identify the main constraints faced by agricultural cooperatives and to provide insights into areas that require attention to overcome these challenges and promote sustainable growth. Lack of marketing infrastructure and cooperative skills, and insufficient technical assistance to members in both production and marketing were identified as the most important constraints, with rankings of 75.9% and 51.4%, respectively. However, it's important to recognize that all of the constraints identified can hinder the growth and development of agricultural cooperatives and potentially undermine their overall performance. Moreover, the prevalence of smallholder farming and land fragmentation in Nepal's agricultural sector pose additional challenges for cooperatives to achieve economies of scale and fully reap the benefits of collective action. Addressing these constraints requires targeted interventions and support mechanisms to strengthen the capacity and resilience of agricultural cooperatives, ultimately contributing to the sustainable growth of the agricultural sector and the livelihoods of smallholder farmers.

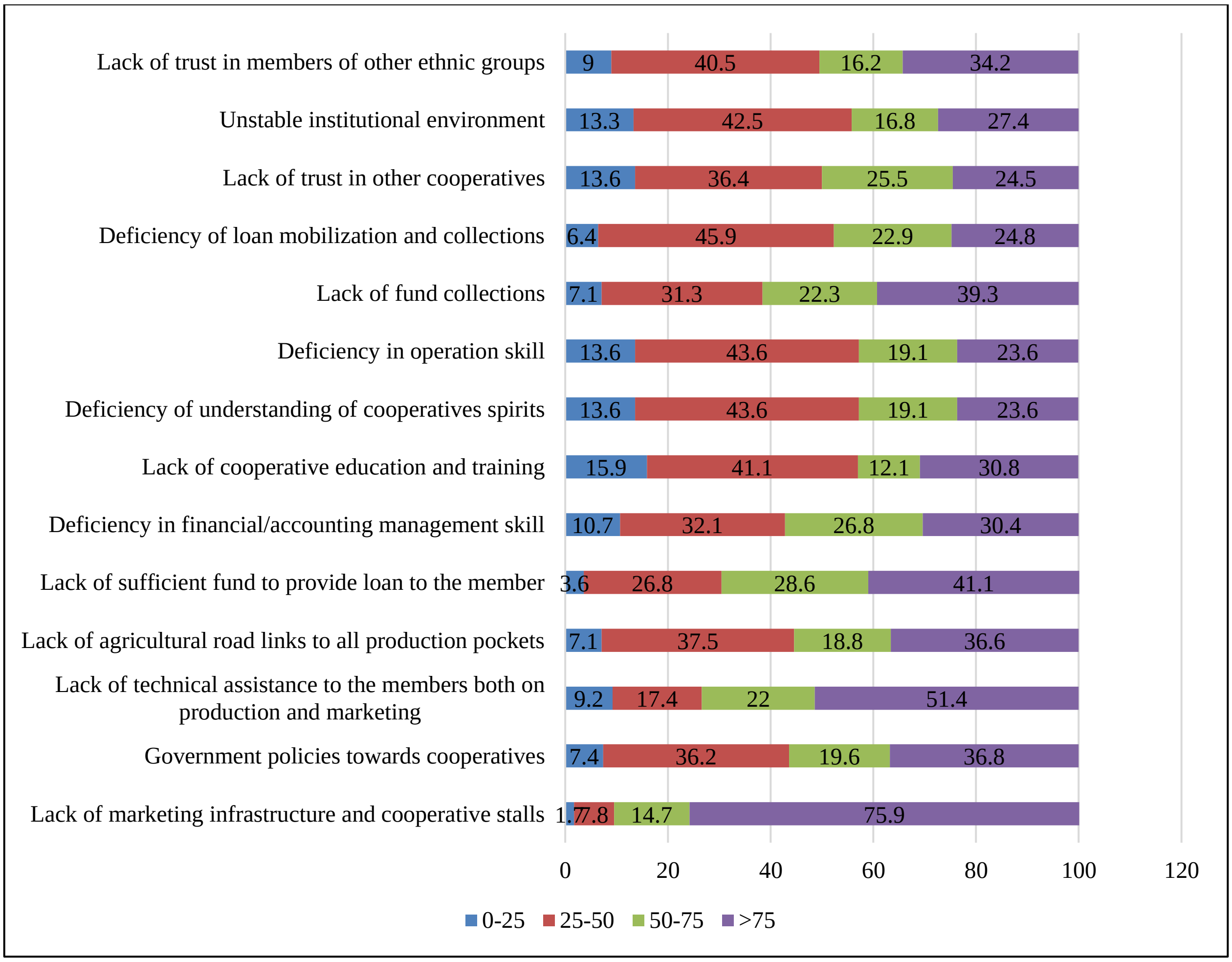

Figure 3. Challenges faced by cooperatives.

Agricultural cooperatives face a variety of challenges that affect different facets of their operations. These challenges include access to sufficient capital, dealing with inadequate financial management skills, navigating market volatility and price discovery, coping with high input costs, and managing risk. Addressing these challenges requires the concerted efforts of multiple stakeholders and the implementation of tailored strategies to strengthen the capacity and competitiveness of agricultural cooperatives in today's dynamic agricultural landscape. Addressing these challenges requires the coordinated efforts of multiple stakeholders, including government agencies, financial institutions, development organizations, and the cooperatives themselves. Strategies may include providing access to finance and technical assistance, improving market linkages and infrastructure, promoting climate-smart agricultural practices, improving regulatory frameworks, and fostering innovation and technology adoption in the agricultural sector.

Assessing the Financial Performance of Cooperatives

By complying with accounting standards and principles, cooperatives ensure that their financial information is reliable and credible, thereby promoting independence in decision-making. Autonomy is ensured by internal controls embedded in the financial accounting processes, which reduce the risk of external interference or undue influence. Financial accounting tracks each member's contribution to the cooperative's capital. This includes investments, savings and loan management, share purchases, and all other forms of member contributions. Members have the right to access financial reports that show how their contributions have been used and allocated within the cooperative. Financial reports, such as income statements and balance sheets, provide insight into the economic activities of the cooperative and ensure transparency in the use of member contributions. Transparent financial reporting builds trust with the community, fosters positive relationships, and promotes the cooperative as a socially responsible entity.

However, the cooperatives were also found to be at disparity considering the financial performance of the cooperatives. Generalizing the opinions of the respondents, transparency and accountability were found weak when the cooperatives were managed by the chairperson, although the cooperatives have gained good connection with the public domain. On the other hand, in cooperatives where the chairman is also a shareholder, there was more public ownership, and improved transparency, accountability, and timely financial reporting. The trend of loan disbursement, as mentioned by the executive members, revealed a peculiar pattern. Cooperatives located in rural areas often disbursed small amounts of loans, as reimbursement was frequently done promptly. In contrast, cooperatives located in urban and suburban areas disbursed larger amounts of loans, and the reimbursement process was found to be even more challenging. This irregularity in loan repayment resulted in the ongoing economic crisis in the cooperatives and some of the cooperatives are on the verge of collapse. And some cooperatives were also found to have an elite dominance over the leadership, imposing regulatory hurdles, mobilizing funds without appropriate mechanism, which fueled the irregularity more.

Discussions

Optimizing Financial Management: Strategies for Agricultural Cooperatives

Financial management practices and accounting mechanisms in Nepal's agricultural cooperatives are essential to ensure efficient use of resources, maintain financial sustainability, and achieve cooperative goals (Paudel & Ph, 2021). In the context of Nepal's agricultural cooperatives, effective financial management practices involve budgeting, financial planning, monitoring expenditures, and assessing financial performance.

These practices help cooperatives to allocate resources judiciously, track financial transactions, and ensure accountability and transparency in financial operations. Furthermore, accounting mechanisms provide cooperatives with valuable insights into their financial health, enabling informed decision-making and strategic planning. Through proper accounting practices, cooperatives can accurately assess their profitability, manage cash flow, and identify areas for cost optimization or revenue generation (Subedi, 2022). Overall, by prioritizing effective financial management practices and implementing robust accounting mechanisms, agricultural cooperatives in Nepal can enhance their operational efficiency, strengthen their financial position, and better fulfill their mission of serving the needs of their members and communities.

Agricultural cooperatives often operate in resource-constrained environments. Optimizing financial management enables these cooperatives to make the most of limited resources by allocating funds judiciously. This includes prioritizing investments in key areas such as agricultural inputs, infrastructure development, and market access initiatives. Agricultural cooperatives must strive for financial sustainability to ensure their long-term viability. This involves maintaining a healthy balance between revenue generation and expenditure, avoiding over-reliance on external funding sources, and building financial reserves to weather economic uncertainties. Effective financial management practices, such as budgeting and financial planning, are essential for achieving and maintaining financial sustainability.

Optimizing financial management strategies requires fostering a culture of financial literacy and accountability among members, encouraging their involvement in decision-making processes, and soliciting feedback on financial performance and priorities.

Cooperatives need to adopt democratic governance structures with elected boards of directors or chairpersons and management teams that are accountable to cooperative members (Meira & Ramos, 2023). Governance structures in cooperatives will be impacted by the organization's purpose and the nature of the members' relationship with the cooperative; processes are democratic, but situation dependent and not uniform; and the dynamics of organizational change involve the co-operative's adaptation and evolution in response to external and internal forces influencing members' evolving needs and goals (including impact on future generations).

Transparent decision-making processes and mechanisms for member participation in financial decisions are indispensable for the economic sustainability of cooperatives, as emphasized by Pandey (2024). Involving stakeholders in financial decisions not only fosters transparency but also ensures that the interests and concerns of members are taken into account. By implementing transparent decision-making processes, cooperatives can enhance accountability and trust among members and stakeholders. Optimizing financial management involves enhancing the cooperative's creditworthiness and financial transparency to attract investment from banks, financial institutions, and development agencies (Delphi International Ltd, 1997). This may involve maintaining accurate financial records, preparing comprehensive business plans, and demonstrating a track record of financial responsibility. Openness in financial decision-making builds confidence in the cooperative's management and helps mitigate potential conflicts or misunderstandings regarding resource allocation and expenditure. By fostering openness, accountability, and stakeholder engagement, cooperatives can strengthen their financial management practices, enhance member satisfaction, and position themselves for long-term success and growth. The strategies require fostering a culture of financial literacy and accountability among members, encouraging their involvement in decision-making processes, and soliciting feedback on financial performance and priorities. In today's digital age, leveraging technology can significantly enhance financial management practices within agricultural cooperatives. This includes using accounting software for bookkeeping and financial reporting, implementing mobile banking solutions for convenient transactions, and utilizing data analytics tools for performance monitoring and decision support. It also necessitates investing in the capacity building of cooperative members and staff which involves providing training and technical assistance on financial literacy, accounting principles, budgeting techniques, and financial analysis. Building the financial management capabilities of stakeholders enhances their ability to contribute effectively to the cooperative's financial health and overall success. By prioritizing efficient resource utilization, ensuring financial sustainability, managing risks effectively, enhancing stakeholder engagement, embracing technology, and investing in capacity building, agricultural cooperatives can strengthen their financial management practices and maximize their impact on the communities they serve.

Balancing the Books: Accounting Mechanisms for Sustainable Agriculture Cooperatives

For financial planning and budgeting, agricultural cooperatives must develop annual financial plans and budgets that are consistent with the cooperative's goals, member needs, and market conditions, as well as budget controls and monitoring mechanisms to ensure adherence to budget targets and efficient allocation of resources (Dhakal et al., 2021). In a financial management practice, an agricultural cooperative should mobilize financial resources through member contributions, retained earnings, loans, grants, and government subsidies and manage its capital structure to optimize the mix of equity and debt financing, taking into account the cooperative's risk profile and cost of financing (Turtianen & Von Pischke, 1982). In ensuring financial reporting and transparency within cooperatives, it is imperative to prepare accurate and timely financial statements, including income statements, balance sheets, and cash flow statements. These statements should adhere to applicable accounting standards and provide transparent financial reporting to the cooperative's members, stakeholders, and regulators. This transparency fosters accountability and trust, as outlined by Pandey (2024). Overall, adherence to transparent financial reporting practices, coupled with inclusive decision-making processes and effective dispute resolution mechanisms, are essential components for fostering accountability, trust, and sustainability within cooperatives. Transparent financial reporting builds trust among members, stakeholders, and investors, enhancing the cooperative's credibility and accountability. These measures uphold the cooperative's integrity, promote stakeholder engagement, and contribute to its long-term success and viability.

Implementing internal control mechanisms within cooperatives is vital for safeguarding assets, preventing fraud, ensuring compliance with regulatory requirements, and enhancing operational efficiency (Musyoki, 2023). These mechanisms serve as checks and balances that help mitigate financial risks and promote accountability throughout the organization. Periodic reviews are also critical for evaluating the effectiveness of internal controls and identifying any weaknesses or deficiencies that may exist (Ayagre et al., 2014). Regular audits, inspections, and assessments help detect errors, irregularities, or potential areas of improvement in financial processes and procedures. Furthermore, internal control mechanisms contribute to enhancing operational efficiency by streamlining workflows, reducing redundancies, and identifying opportunities for cost savings or process improvements (USDA, 1998). By implementing efficient and effective internal controls, cooperatives can optimize resource utilization and minimize the risk of financial losses or regulatory non-compliance. Overall, internal control mechanisms play a fundamental role in ensuring the integrity, reliability, and transparency of financial operations within cooperatives (Chesnick, 2000). By safeguarding assets, preventing fraud, and promoting compliance with regulatory requirements, these controls contribute to the overall sustainability and success of the organization (USDA, 1998).

From a technological standpoint, adopting accounting systems and software is crucial for cooperatives to effectively record and track financial transactions, manage accounts payable and receivable, and generate financial reports. Utilizing accounting software streamlines financial processes, enhances accuracy, and improves efficiency in managing financial data. Furthermore, employing double-entry accounting principles is essential to ensure the accuracy and completeness of financial records (Chesnick, 2000). This approach maintains balance between debits and credits, providing a reliable foundation for financial analysis and decision-making. In addition to leveraging technology for accounting purposes, cooperatives should develop annual operating budgets and cash flow forecasts (USDA, 1998). These tools enable proactive planning and control of expenditures, facilitate effective cash flow management, and allow for ongoing monitoring of financial performance against predefined targets. Implementing cost control measures is another critical aspect of financial management for cooperatives. By optimizing costs, improving efficiency, and maximizing return on investment, cooperatives can enhance their financial sustainability and competitiveness in the marketplace (Aryal, 2011). Overall, embracing technological solutions for accounting, adhering to double-entry accounting principles, developing comprehensive budgets and cash flow forecasts, and implementing cost control measures are essential practices for ensuring effective financial management and driving the long-term success of cooperatives (Ouda, 2004). Majority of Nepalese SMEs prepare their accounting reports at least once a year and among the financial accounting reports, income statement was considered most useful followed by balance sheet and cash flow (Sharma, 2016). The financial management and reporting are integral part to cooperatives with the significance of income statements, balance sheets, and cash flow statements in conveying financial health and facilitating strategic decision-making. Financial accounting in agricultural cooperatives aligns closely with cooperative principles, especially emphasizing member economic participation and autonomy. Through accounting mechanisms, cooperatives can evaluate their financial performance accurately (Park et al., 2023). By analyzing financial statements, such as income statements, balance sheets, and cash flow statements, cooperatives can assess their profitability, liquidity, and solvency, identifying areas for improvement and strategic planning (Kenkel, 2021). By tracking revenues and expenses, cooperatives can develop realistic budgets, allocate resources effectively, and set financial goals aligned with their mission and objectives (USDA, 2000).

Agriculture cooperatives in Nepal are autonomous, self-help organizations controlled by their members. Financial accounting plays a crucial role in maintaining the autonomy of cooperatives by providing an objective and standardized method of recording and reporting financial transactions. Accounting mechanisms help identify opportunities for cost optimization and efficiency improvement. By analyzing cost structures and identifying cost drivers, cooperatives can implement cost-saving measures, streamline operations, and maximize profitability while minimizing waste. The statement from Lalin and Irfan (2010) suggests that regulatory pressure is cited as one of the main reasons why small and medium-sized enterprises (SMEs) prepare financial statements. Aryeetey et al. (1994) highlight practical challenges in micro and small enterprises related to deriving records and figures for financial statements. Accounting mechanisms ensure compliance with regulatory requirements and governance standards. Accurate financial record-keeping enables cooperatives to fulfill reporting obligations, adhere to tax laws, and demonstrate compliance with legal and ethical standards, reducing the risk of fines, penalties, and reputational damage.

Following the financial analysis and performance evaluation of cooperatives, the manager should use financial ratios and key performance indicators (KPIs) to assess the financial health, liquidity, profitability, and efficiency of the cooperative and conduct regular financial analysis and performance reviews to identify trends, strengths, weaknesses, and opportunities for improvement (USDA, 1998). The cooperative must comply with regulatory requirements and accounting standards prescribed by the Cooperatives Act, the Companies Act, and other relevant laws and regulations and submit statutory financial reports and disclosures to regulatory authorities, including the Department of Cooperatives (Nepal Rastra Bank, 2010). The engagement of external auditors also provides assurance on the accuracy, reliability, and compliance of financial reporting among partners and shareholders by conducting independent audits of financial statements These can be comprehend by the facilitation of cooperative audits and reviews by regulatory bodies to ensure compliance with legal and regulatory requirements. These financial management practices and accounting mechanisms enable agricultural cooperatives in Nepal to effectively manage their finances, increase transparency and accountability, and achieve their social, economic, and environmental goals (Dhakal et al., 2021). By adopting sound financial management practices and accounting mechanisms, agricultural cooperatives can contribute to the sustainable development of rural communities, improve livelihoods, and promote inclusive growth in Nepal.

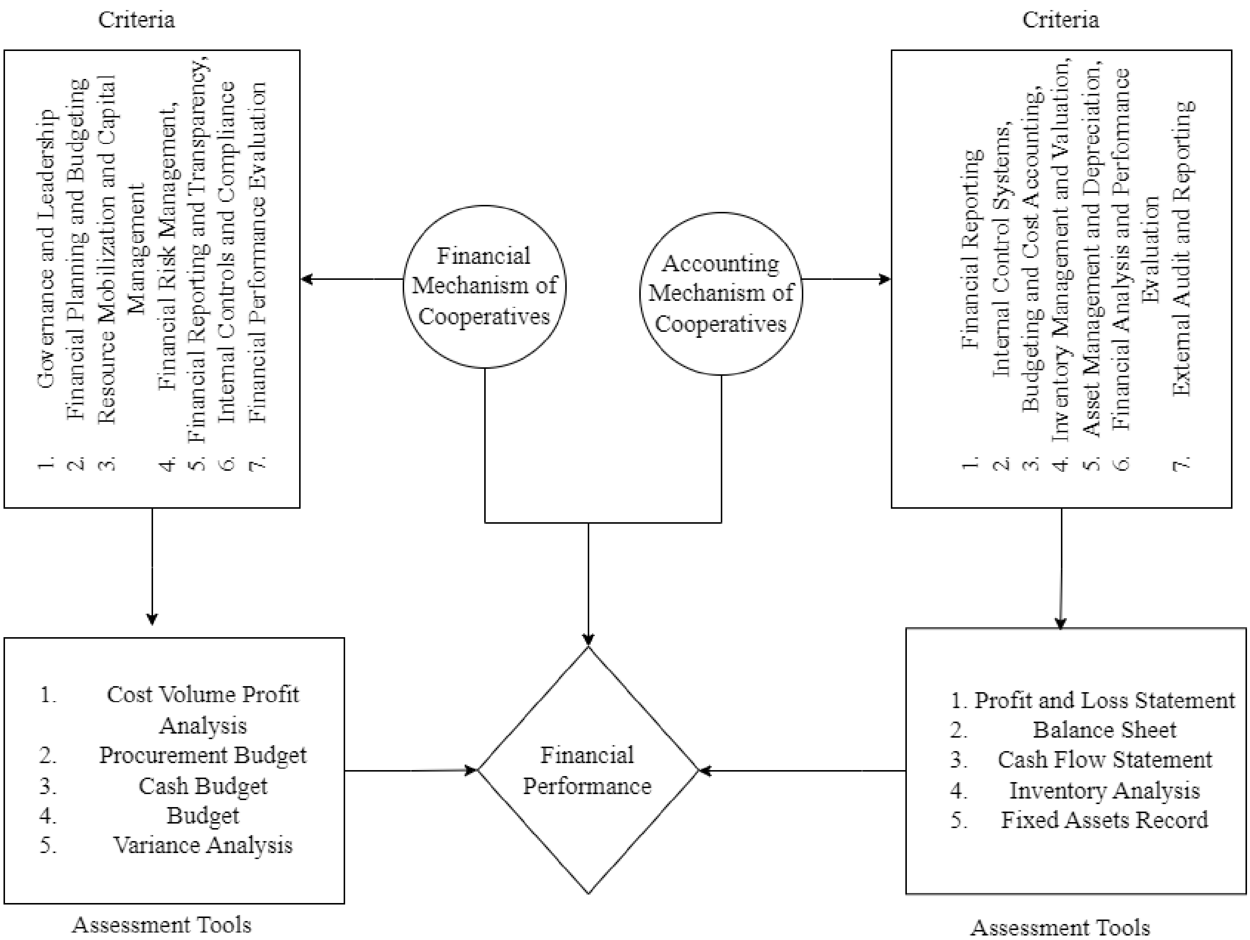

Figure 4. Analytical framework of financial control mechanism with a focus on management accounting practices and financial reporting mechanisms: Authors modified, 2024.

Agriculture cooperatives should consider adopting accrual accounting principles, which recognize revenues and expenses when incurred, regardless of cash flow timing. Accrual accounting provides a more accurate picture of the cooperative’s financial performance and position, enabling better decision-making (USDA, 1998).

Cooperatives should establish robust internal control procedures to safeguard assets, prevent fraud, and ensure the accuracy and reliability of financial information. Internal controls may include segregation of duties, authorization procedures, and regular audits to detect and address discrepancies (Musyoki, 2023). Utilizing accounting software tailored to the needs of agriculture cooperatives can streamline financial management processes and improve efficiency. Accounting software automates tasks such as bookkeeping, invoicing, and reporting, reducing manual errors, and saving time and resources. Cooperatives should invest in training and education programs to enhance the financial literacy and skills of members, staff, and board members. Training sessions on accounting principles, financial analysis, and budget management empower stakeholders to understand and interpret financial information effectively (Anania & Cronery Rwekaza, 2018). Agriculture cooperatives may benefit from engaging external accounting professionals, such as certified public accountants (CPAs) or financial advisors, to provide expertise and guidance on complex accounting issues. External professionals can offer valuable insights, perform audits, and ensure compliance with regulatory requirements.

Behind the Numbers: Understanding the Influential Factors Shaping Financial Management and Accounting Practices in Agricultural Cooperatives

The SMEs in Nepal have a low capital base, poor access to technology, and inadequate knowledge and information regarding business opportunities and marketing (Pandey, 2004). In general, members of agricultural cooperatives produce dairy and animal products, often in small quantities, mainly for their own use (Dhakal, 2021; Dhakal et al., 2021). Similarly, SMEs in Nepal also suffer from poor access to finance brought about by high interest rates, large collateral requirements, inconveniences associated with the process, a lack of information, and inadequate institutional capacity, among other things (NRB, 2020). Kharel and Dahal (2020) highlighted various challenged faced by SME in Nepal: inadequately trained/skilled workforce, onerous collateral requirement and high interest rates, inadequate credit and subsidy schemes, insufficient duty drawback systems, poor dissemination of information, restrictions of online payment systems, and weak capacity of public administrations. Previous work (Dhakal et al., 2021) suggests that agricultural cooperatives in Nepal typically do not engage in marketing and production activities characteristic of agricultural cooperatives elsewhere. Study conducted by Pandey (2023) revealed similar challenges faced by the cooperatives where major challenges encountered by the cooperatives were lack of managerial skills, and professionalism, sound planning and implementation, lack of working capital, appropriate research extension and education about cooperative and weak portfolio, low risk management, and liquidity crunch in the financial system. Inadequate financial management can lead to irregularities in cash flow, making it difficult for the organization to meet its operational needs such as paying suppliers, employees, and other expenses. This can disrupt day-to-day operations and hinder growth opportunities. When an organization consistently struggles with cash flow, it may resort to borrowing to cover expenses. However, without proper financial management, this can lead to a cycle of increasing debt, which becomes unsustainable over time, eventually leading to insolvency. Members of the cooperative or investors may lose confidence in the organization’s ability to manage their funds effectively. This loss of trust can result in members withdrawing their investments, causing further financial strain, and potentially leading to the collapse of the cooperative. If cash flow problems and mounting debt are not addressed, the organization may become insolvent, meaning it’s unable to meet its financial obligations. This could ultimately result in the closure of the cooperative, impacting not only its members but also the broader community it serves. Financial mismanagement can tarnish the reputation of both the cooperative and its members. Stakeholders, including customers, suppliers, and the public, may view the organization unfavorably, damaging its credibility and making it difficult to rebuild trust in the future.

Addressing these multifaceted challenges requires a concentrated effort from all relevant stakeholders including local government, and non-governmental organizations through capacity building initiatives, regulatory reforms, technology adoption and education programs can help strengthen financial control mechanisms within the agricultural cooperatives in Nepal, ensuring their long-term sustainability and adherence to cooperative principles. Adapting innovative and iterative solutions such as capacity buildings, infrastructure development and policy reforms and improved access to finance and market will unlock the true potential of the cooperatives to revitalize the surge in the economy and enhanced livelihoods for smallholder farmers and contribute to the overall development of agricultural sector within the country.

Conclusion and Recommendations

This study has significantly enriched our understanding of cooperative finance and management in Nepal by meticulously examining the financial practices and accounting mechanisms of agricultural cooperatives in the Dang District. The cooperative principles of ownership, democratic control, and equitable benefit distribution have been reflected in their evolving financial mechanisms. Both financial and management accounting mechanisms play a pivotal role in fostering transparency, accountability, and sustainable growth. As these practices continue to evolve, they serve as cornerstones for promoting member participation and aligning cooperative activities with core principles. The results of the study are an indication that financial and management accounting practices in SMEs are contemporary. While Savings and Credit Cooperatives exhibit some reluctance toward accounting practices, Multipurpose Cooperatives hold a substantial position in financial management. Profit and loss, balance sheet, cash flow statement was found prepared and augmented during the closing of the fiscal years, although monthly basis records were also kept intact. The use of fully computerized accounting systems (43.6%) was also noteworthy, as it suggested a modern and efficient approach to managing financial information.

It's interesting to note that management accounting reports are considered more useful, and the respondents have more knowledge than financial accounting reports. These data inferred into account 79.3% of the respondent's purpose of preparation of financial report as to know the financial position of the cooperatives. Accounting practices were found to bring very high usefulness primarily for costing, budgeting, information for decision making, performance evaluation, and strategic analysis. Major challenges faced by both types of cooperatives were entailed by the absence of marketing infrastructure and cooperative stalls and lack of technical assistance to the members both on production and marketing. Overall, sound financial management is crucial for the sustainability and success of cooperative societies, as it ensures efficient use of resources, financial stability, and trust among stakeholders.

By promoting financial transparency, enabling performance evaluation, supporting budgeting and planning, optimizing costs, and ensuring compliance and governance, accounting mechanisms lay the foundation for effective financial management and decision-making. Implementing strategies such as adopting accrual accounting, implementing internal controls, investing in accounting software, providing training and education, and engaging professional support can enhance the accounting practices of agriculture cooperatives, contributing to their long-term viability and impact on rural communities. Moving forward, it is crucial for agricultural cooperatives to prioritize the adoption of robust financial accounting practices, enhance the frequency and quality of financial reporting, and provide relevant training and resources to cooperative personnel. It is safe to conclude that the role of financial awareness is a cornerstone in offering and facilitating a roadmap for better management control, informed decision-making, and unlocking opportunities for market expansion and profit maximization. The findings of this study have the potential to guide cooperative leaders, policy makers, and development practitioners in improving financial management and performance in the agricultural sector. Adapting to evolving challenges and opportunities requires continuous monitoring, evaluation, and adjustment of financial management and accounting systems to ensure the long-term sustainability and success of agricultural cooperatives. Through strategic financial decision-making and proactive management practices, cooperatives can optimize their performance, increase member satisfaction, and achieve their organizational goals. By addressing the gaps and delving into the intricacies of financial management in this context, valuable insights can be gained that not only benefit local cooperatives, but also contribute to broader cooperative management in Nepal.

This study emphasizes the importance of robust financial management practices within cooperative organizations, particularly in the agricultural sector. It highlights the need for cooperative managers to address issues related to financial accounting, accounting mechanisms, and internal control by establishing clear financial policies and procedures, conducting regular audits, and implementing effective budgeting and planning processes. Additionally, expanding the financial base of agricultural cooperatives is crucial to ensure they have the necessary resources to provide effective services to their members. This can be achieved through initiatives such as increasing membership contributions, seeking external funding sources, and exploring investment and revenue generation opportunities. Furthermore, the study suggests focusing on resource mobilization and utilization, including human capital, materials, and finances, for the development of cooperative membership. Continuous training and capacity-building programs for cooperative managers and members are also recommended to enhance their skills and knowledge in financial management and other relevant areas. By implementing these policy recommendations, cooperative organizations can strengthen their financial management practices, improve service delivery to members, and contribute more effectively to the socioeconomic development of their communities.

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References

Abdullah, N. H., Krishnan, S., Mohd Zakaria, A. A., & Morris, G. (2022). Strategic management accounting practices in business: A systematic review of the literature and future research directions. *Cogent Business & Management*, *9*(1), 2093488.

Al-Bassam, W. M., Ntim, C. G., Opong, K. K., & Downs, Y. (2018). Corporate boards and ownership structure as antecedents of corporate governance disclosure in Saudi Arabian publicly listed corporations. *Business and Society*, *57*(2), 335-377. Retrieved from https://doi.org/10.1177/0007650315610611

Adepoju, A. T. (2007). *Theory and practice of financial management (A professional approach)* (1st ed.). Osogbo, Osun State: Ariola Publication.

Anania, P., & Cronery Rwekaza, G. (2018). Co-operative education and training as a means to improve performance in co-operative societies. 1.

Aryeetey, E., Baah-Nuakoh, A., Duggleby, T., Hettige, H., & Steel, W. F. (1994). Supply and demand for finance of small enterprises in Ghana. *World Bank Discussion Papers*. The World Bank. Retrieved from https://doi.org/doi:10.1596/0-8213-2964-2

Akpan, J. U., & Oluwagbade, O. I. (2024). Social and environmental responsibility in accounting: Beyond financial metrics. *International Journal of Social Sciences and Management Research, 9*(9), 163-188. Retrieved from https://doi.org/10.56201/ijssmr.v9.no9.2023.pg163.188

Alrawashedh, N. H. (2023). Management accounting methods for financial decisions: Case of industrial companies in Jordan. *Investment Management and Financial Innovations, 20*(4), 60-68. Retrieved from https://doi.org/10.21511/imfi.20(4).2023.06

Amoako, G. (2013). Accounting practices of SMEs: A case study of Kumasi Metropolis in Ghana. *International Journal of Business and Management, 8*(24), 73-83. Retrieved from https://doi.org/10.5539/ijbm.v8n24p73

Aryal, C. P. (2011). Financial performance analysis of royal cooperative society limited in the framework of Pearls (Thesis, Prithivi Narayan Campus, Pokhara, 2011). Retrieved from https://doi.org/10.3726/978-3-0351-0572-8/4

Ascani, I., Ciccola, R., & Chiucchi, M. S. (2021). A structured literature review about the role of management accountants in sustainability accounting and reporting. *Sustainability, 13*(4), 2357.

Ayagre, P., Appiah-Gyamerah, I., & Nartey, J. (2014). The effectiveness of internal control systems of banks. The case of Ghanaian banks. *International Journal of Accounting and Financial Reporting, 4*(2), 377-389.

Bamidele M. M, & Ibrahim J., O. I. (2018). Financial reporting quality and its effect on investment decisions by nigerian deposit money banks. *European Journal of Accounting, Auditing and Finance Research*, *36*(4), 25–37. https://ojs.amhinternational.com/index.php/imbr/article/view/2461/1696

Basterretxea, I., Cornforth, C., & Heras-Saizarbitoria, I. (2020). Corporate governance as a key aspect in the failure of worker cooperatives. *Economic and Industrial Democracy, 43*(1), 362-387. Retrieved from https://doi.org/10.1177/0143831X19899474

Bhusal, T. (2023). Internal control system and financial performance of saving and credit cooperatives. *XI*(2), 56-68.

Bijman, J., & Iliopoulos, C. (2014). Farmers' cooperatives in the EU: Policies, strategies, and organization. *Annals of Public and Cooperative Economics, 85*(4), 497-508. Retrieved from https://doi.org/10.1111/apce.12048

Cervantes, J. Z., Dakina, I., Modasir, H. L., Monteza, M. G., & Ocor, J. D. (2023). Sustainability of agricultural cooperatives: A comprehensive analysis sustainability of agricultural cooperatives. 0-12. https://doi.org/10.13140/RG.2.2.25037.82405

Chesnick, D. S. (2000). Financial management and ratio analysis for cooperative enterprises. *Rural Business—Cooperative Service Reasearch*. Retrieved from https://www.rd.usda.gov/files/rr175.pdf

Cookey, S. O. I. (2000). Cooperative accounting. Retrieved from https://nou.edu.ng/coursewarecontent/COP%20416%20%20%20COOPERATIVE%20ACCOUNTING.pdf

COPAC. (2015). Transforming our world : A cooperative 2030. Cooperative contributions to SDG 17. Retrieved from www.ica.coop

Costa, E. G., & Melo, A. A. de O. (2017). Governança corporativa: Conflitos de agência em cooperativas de crédito mineiras. *Gestão & Planejamento-G&P, 18*, 386-409.

Da Silva, F. F., Baggio, D. K., & Santos, D. F. L. (2022). Governance and performance model for agricultural cooperatives. *Estudios Gerenciales, 38*(165), 464-478. Retrieved from https://doi.org/10.18046/j.estger.2022.165.5238

Delphi International Ltd. (1997). The Role of Financial Institutions in Achieving Sustainable Development, prepared for the EU Commission DGXI by Delphi International Ltd in association with Ecologic GMBH. November.

Dhakal, D. (2021). Role of agricultural cooperatives in poverty reduction in nepal: An empirical analysis (Thesis, University of Missouri-Columbia, 2021).

Dhakal, D., & Mueser, P. (2023). Agricultural cooperatives and the failure to achieve commercialization of agriculture in Nepal: A case study of the Chitwan district. *Research in Globalization, 7*(October), 100165. Retrieved from https://doi.org/10.1016/j.resglo.2023.100165

Dhakal, D., O'brien, D., & Mueser, P. (2021). Government policy and performance of agricultural cooperatives: A case study in chitwan district, Nepal. *Sustainability (Switzerland), 13*(21), 1-20. Retrieved from https://doi.org/10.3390/su132112282

Dhakal, L. (2019). Women empowerment throufh the micro credit programs in Nepal. Retrieved from https://elibrary.tucl.edu.np/bitstream/123456789/2717/2/Cover.pdf

Everaert, P., Sarens, G., & Rommel, J. (2006). Sourcing of accounting: Evidence from Belgian SMEs. *Working Papers of Faculty of Economics and Business Administration, Ghent University, Belgium*.

ICA. (1995). *International cooperative alliance*.

ICA. (2015). *Co-operative governance fit to build resilience in the face of complexity*.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics, 72*(10), 1671-1696. Retrieved from https://doi.org/10.1177/0018726718812602

Johnson, F. (2003). Financial accounting for local and state school systems. *National Center for Education Statistics*. Retrieved from https://nces.ed.gov/pubs2004/h2r2/ch_3.asp

Kenkel, P. (2021). Financial statement analysis for agricultural cooperatives. 1-8. https://extension.okstate.edu/fact-sheets/print-publications/agec/financial-statement-analysis-for-agricultural-cooperatives-agec-1996.pdf

Kharel, P., & Dahal, K. (2020). Small and medium-sized enterprises in Nepal: Examining constraints on exporting. *ADBI Working Paper Series.*

Lalin, H., & Irfan, S. (2010). Research on usage and usefulness perception of financial accounting practices in a less developing country: A case of SMEs in Cambodia.

Maciel, A. P. B., Seibert, R. M., Silva, R. C. F. da, Wbatuba, B. B. R., & Salla, N. M. da C. (2018). Governança em cooperativas: Aplicação em uma cooperativa agropecuária. *Revista de Administração Contemporânea, 22*, 600-619.

Marcis, J., Bortoluzzi, S. C., de Lima, E. P., & da Costa, S. E. G. (2018). Sustainability performance evaluation of agricultural cooperatives' operations: A systemic review of the literature. *Environment, Development and Sustainability, 21*(3), 1111-1126. Retrieved from https://doi.org/10.1007/s10668-018-0095-1

Marriott, N., & Marriott, P. (2000). Professional accountants and the development of a management accounting service for the small firm: Barriers and possibilities. *Management Accounting Research, 11*, 475-492. Retrieved from https://doi.org/10.1006/mare.2000.0142

Maseko, N., & Manyani, O. (2011). Accounting practices of SMEs in Zimbabwe: An investigative study of record keeping for performance measurement (A case study of Bindura). *Journal of Accounting and Taxation, 3*, 171-181. Retrieved from https://doi.org/10.5897/JAT11.031

Masuku, T., Masuku, M., & Mutangira, J. P. (2016). Performance of multi-purpose cooperatives in the Shiselweni Region of Swaziland. *International Journal of Sustainable Agricultural Research, 3*(4), 58-71. Retrieved from https://doi.org/10.18488/journal.70/2016.3.4/70.4.58.71

Meira, D., & Ramos, M. E. (2023). Democratic governance and modernity in 21st century co-operatives in Portugal: Frontiers and balances. *Journal of Co-Operative Organization and Management, 11*(2), 100215. Retrieved from https://doi.org/10.1016/j.jcom.2023.100215

Musyoki, K. M. (2023). Internal control systems and their role in financial fraud prevention in Kenya. *African Journal of Commercial Studies, 3*(3), 173-180. Retrieved from https://doi.org/10.59413/ajocs/v3.i3.4

NEFSCUN. (2022). *Cooperatives in Nepal—NEFSCUN*. Retrieved from https://www.nefscun.org.np/cooperatives-in-nepal/

Nepal Rastra Bank. (2010). *Unified directives*.

NRB. (2020). Financial inclusion in Nepal. A country paper presented to *A SAARCFINANCE Webinar, Kathmandu Nepal, Nepal Rastra Bank.*

Ntim Adjei, L. (2014). Accounting practices and control systems of small and medium size entities: A case study of Techiman Municipality. *Journal of Finance and Accounting, 2*, 30-40. Retrieved from https://doi.org/10.11648/j.jfa.20140203.11

Ostaev, G. Y., Alborov, R. A., Ermakov, D. N., Belokurova, E. V, & Artemiev, N. V. (2022). Management accounting and economic security in corporate management of agricultural company operation. *Revista de La Universidad Del Zulia*, *13*(36), 158-172.

Ostaev, G. Y., Shulus, A. A., Mironova, M. V, & Smolin, Y. V. (2020). Accounting agricultural business from scratch: management accounting, decision making, analysis and monitoring of business processes. *Amazonia Investiga*, *9*(27), 319-332.

Ouda, H. A. G. (2004). Basic requirements model for successful implementation of accrual accounting in the public sector. *The International Consortium on Governmental Financial Management, 4*(1), 78-99.

Pandey, G. D. (2004). Problems and prospects of SMEs in Nepal. In *WTO membership: Opportunities and challenges for SMEs in Nepal* (pp. 20-21). Kathmandu: SMEDP and SAWTEE.

Pandey, G. (2023). Marketing challenges and opportunities of agriculture cooperatives in Mountain Dang Valley of Nepal. Retrieved from http://inproforum.ef.jcu.cz/pdfs/ipf/2023/01/06.pdf

Pandey, G. (2024). Cooperative values, principles and application. https://tulsipurkhabar.com/archives/109733

Patani, S. (2021). *The participation of women and their leadership enhancement through co-operative.*

Park, J. L., Friend, D. B., Manley, M. T., & Boyd, B. L. (2023). Leadership in agricultural cooperatives. In *Handbook of Research on Cooperatives and Mutuals*. Edward Elgar Publishing, pp. 135-147.

Paudel, G. P. (2016). A study of liquidity and interest spread in nepalese cooperative societies. *International Journal of Economics, Finance and Management Sciences, 4*(6), 321. Retrieved from https://doi.org/10.11648/j.ijefm.20160406.11

Paudel, G. P. (2021). Risk management and efficiency of works: A study of Nepalese cooperatives societies. *Business & IT, XI*(2), 10-25. Retrieved from https://doi.org/10.14311/bit.2021.02.02

Paudel, G. P. (2022). Sixty-five years of Nepalese cooperative movement and its direction. Retrieved from https://journalajeba.com/index.php/AJEBA/article/view/726

Paudel, G. P. (2023). Transparency and financial risks in Nepalese cooperative societies. *Journal of Banking and Finance Management, 4*(1), 14-21.

Paudel, G. P., & Ph, D. (2021). Risk management and efficiency of cooperatives: A study of Nepalese cooperatives societies. Retrieved from https://bit.fsv.cvut.cz/issues/02-21/full_02-21_02.pdf

Paudel, R. C., & Acharya, C. P. (2022). Cooperatives and economic growth in a developing country: The case of Nepal. *Annals of Public and Cooperative Economics, 93*(3), 797-815. Retrieved from https://doi.org/10.1111/apce.12323

Pokharel, K. P., Regmi, M., Featherstone, A. M., & Archer, D. W. (2019). Examining the financial performance of agricultural cooperatives in the USA. *Agricultural Finance Review, 79*(2), 271-282. Retrieved from https://doi.org/10.1108/AFR-11-2017-0103

Poudel, N., Itabashi, M., & Yukio, M. (2015). Marketing system of agricultural cooperatives in Nepal: A case studies of Janagarathi vegetable and fruit producer agriculture, cooperative. *Review of Integrative Business and Economics Research, 4*(4), 337-348. Retrieved from www.sibresearch.org

Qian, X., & Olsen, T. L. (2021). Financial and risk management in agricultural cooperatives with application to the milk industry in New Zealand. *International Journal of Production Research*, *59*(19), 5913-5943. https://doi.org/10.1080/00207543.2020.1797204

Reid, G., & Smith, J. (2000). Information system development in the small firm: The use of management accounting. Retrieved from https://research-portal.st-andrews.ac.uk/en/publications/information-system-development-in-the-small-firm-the-use-of-manag

Sayadi, S. A., Rahnamaye, R. F., Pourzamani, Z., & Nikoomaram, H. (2019). Analysis of the role of management accountants as strategic advisers, based on contingency model. Retrieved from https://jak.uk.ac.ir/article_2375.html?lang=en

Subedi, S. (2022). Management accounting practices in cooperatives in Nepal. *JMC Research Journal*, *11*(1), 1-13. https://doi.org/10.3126/jmcrj.v11i1.59230

Sharma, G. (2016). Practices of financial and management accounting: Evidence fromsmall and medium-sized enterprises of Nepal. *Journal of Nepalese Business Studies, 9*(1), 77-86. Retrieved from https://doi.org/10.3126/jnbs.v9i1.14597

Sharma, M. (2020). Role of cooperatives in poverty alleviation of rural farmers in Nepal: Empirical evidences. *Int. J. Grad. Res. Rev., 6*(1), 5-10. Retrieved from www.ijgrr.org5

Suryani, A. (2021). Managerial ability and future banking performance: The role of book-tax differences as moderator. *Journal of Accounting and Investment, 22*(1), 173-191.

Susandya, A. A. P. G. B. A., Yuliastuti, I. A. N., & Putra, G. B. B. (2018). The effect of cooperative’s characteristic on financial reporting timeliness. *Sriwijaya International Journal of Dynamic Economics and Business, 2*(4), 269-292. Retrieved from https://doi.org/10.29259/sijdeb.v2i4.269-292

Turtianen, T., & Von Pischke, J. D. (1982). The financing of agricultural cooperatives. *Finance & Development, 19*(3), 18-21.

USDA. (1998). Understanding cooperative bookkeeping and financial statements.

USDA. (2000). Understanding cooperatives: agricultural marketing cooperatives. January, 1-4.

Von Pischke, J. D., & Rouse, J. G. (2004). *New strategies for mobilizing capital in agricultural cooperatives*. Retrieved from http://www.fao.org/docrep/007/y5469e/y5469e00.htm

Weygandt, J. J., Kimmel, P. D., Kieso, D. E., & Aly, I. M. (2018). *Managerial accounting: Tools for business decision-making*. Hoboken: John Wiley & Sons.

Yobe, C. L., Ferrer, S. R. D., & Mudhara, M. (2020). Measuring the financial efficiency of agricultural cooperatives in South Africa: An application of the Simar-Wilson methodology. *Agrekon, 59*(3), 269-286. Retrieved from https://doi.org/10.1080/03031853.2020.1761845