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COMPARISON OF THE FINANCIAL PERFORMANCE OF THE FIVE LARGEST SAVINGS AND CREDIT COOPERATIVES IN SEGMENT ONE OF THE EPS AND THE FIVE PRIVATE BANKS WITH THE HIGHEST ASSETS IN ECUADOR, YEAR 2023

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ABSTRACT
In Ecuador, the financial system is composed of banks and Economía Popular y Solidaria (EPS) organizations. There are structural and operational differences that make it necessary to compare their performance using common criteria. This study conducts a comparative analysis of the financial performance of five private banks and five cooperatives in Segment One of the EPS during 2023. Using a quantitative approach, indicators of liquidity, solvency, profitability, and delinquency were examined, and interviews were conducted with risk and finance managers. The results showed that banks achieved a return on assets (ROA) of 2.4% and a return on equity (ROE) of 15.3%, while cooperatives reported 1.8% and 10.1%, respectively ($p < 0.05$). The delinquency rate was lower in banks (2.3%) than in cooperatives (4.5%) ($p = 0.031$), banks also showed higher liquidity ratios and higher net income ($65.7 million vs. $12.4 million), these variations did not reach statistical significance ($p > 0.05$). It is concluded that it is essential to implement differentiated policies that recognize both the economic impact and the social contribution of these organizations, incorporating hybrid indicators that combine financial performance and social impact.

Keywords: Market, liquidity, risk, profitability, solvency.

1. INTRODUCTION

The financial system in Latin America plays a crucial role in the economic development of countries, and savings and credit cooperatives are key players in the popular and solidarity sector, and Ecuador is no exception (Segovia-Vargas et al., 2023). These institutions not only promote financial inclusion, but also facilitate access to financial services for sectors traditionally excluded from conventional banking (Álvarez-Gamboa et al., 2023).

Credit and collection policies serve as strategic tools for maintaining a balance between loan portfolio expansion and timely recovery of disbursed funds (Goldberg et al., 2020). Proper management of these policies helps reduce the delinquency risk, improve portfolio recovery rates, and ensure the liquidity and solvency of the financial institution (Aduda and Obondy, 2020; Amoah and Boakye, 2024; Gikundiro and Twesigye, 2024). Conversely, inefficient management can seriously compromise the financial and operational stability of the institution, undermining member confidence and limiting its growth potential (Greuning and Bratanovic, 2020).

In the province of Chimborazo, the Riobamba Savings and Credit Cooperative (COAC Riobamba Ltda.) has played an important role in strengthening the economic well-being of its members by offering financial products tailored to local needs. However, in recent years, it has faced challenges related to an increase in delinquency and a decline in certain financial solvency indicators.

These issues have raised concerns about the effectiveness of its credit and collection policies, particularly during 2023, in a context characterized by post-pandemic economic recovery, inflation, and growing competition in the financial sector.

An in-depth analysis of the impact of the credit and collection policies implemented by Cooperativa Riobamba Ltda. during 2023 is necessary in order to identify strengths and weaknesses in their application and propose improvement strategies to optimize financial management.

2. LITERATURE REVIEW

Financial performance theory

The theory of financial performance seeks to elucidate how organizations use their financial assets to achieve economic efficiency, sustainability, and value creation (Jordão et al., 2022). This concept encompasses the evaluation of essential metrics such as profitability, liquidity, solvency, and operational efficiency, which, taken together, provide insight into an organization's ability to generate income, meet its obligations, and maximize asset utilization (Blessing and Sakouvogui, 2023). These metrics not only demonstrate the effectiveness of internal management, but also convey the financial well-being of the institution to external stakeholders, such as regulatory bodies, shareholders, and clients. According to Oko-Odion et al. (2025), within the context of financial institutions, strong financial health is closely associated with effective risk management practices, cost containment, and strategic capital investment.

Conventional models of financial performance are predominantly based on numerical data derived from accounting records and financial reports. However, recent research highlights the importance of adopting a more comprehensive and multifaceted strategy that integrates both financial results and qualitative aspects such as governance, the institutional mission, and social consequences, which is especially relevant when evaluating cooperative organizations or entities operating in the social and solidarity economy (Niedlich et al., 2020; Shin and Chung, 2020). This theoretical framework is particularly relevant when analyzing different financial institutions, for instance, private banks versus credit cooperatives, whose operational intentions and performance expectations may vary considerably even in comparable regulatory environments.

Financial indicators: liquidity, profitability, solvency, and delinquency

Crucial financial metrics serve as fundamental tools for assessing the performance and soundness of financial institutions. According to (Blessing and Sakouvogui, 2023), liquidity assesses an institution's ability to meet its short-term financial responsibilities and indicates its ability to adapt to sudden cash flow needs. Profitability, often measured using metrics such as return on assets (ROA) and return on equity (ROE), reflects the efficiency with which the institution generates profits relative to its assets and equity. According to Dahiyat et al. (2021), solvency examines an institution's long-term viability by analyzing its capital structure and debt-to-equity ratio.

In addition to these conventional metrics, delinquency rates (which reflect the proportion of uncollectible loans) are of considerable importance to credit institutions. High delinquency levels may indicate potential deficiencies in credit risk management and could compromise both liquidity and long-term solvency (Mefereh et al., 2025; Oino, 2021). In the case of cooperatives and similar organizations operating in the popular and solidarity economy, delinquency could also highlight the broader social and economic challenges faced by their members.

Structural characteristics of banks and credit cooperatives

Private banks and credit cooperatives operate under different frameworks that influence their objectives, governance, and financial approaches (Kyazze et al., 2020). Banks are generally for-profit entities owned by shareholders and characterized by a centralized decision-making process aimed at optimizing investment profitability. Their operating models focus on efficiency, scalability, and risk-adjusted profitability, often supported by significant investments in technology and access to capital markets (Moro-Visconti et al., 2020). The regulatory environment surrounding banks tends to be more uniform and rigorous, reflecting their crucial role in national and international financial systems.

On the other hand, cooperatives, especially those associated with the Popular and Solidarity Economy, are owned by their members and governed democratically. Their main objective is not to maximize profits, but to offer accessible financial services and promote local development (Iyer et al., 2021; Ribas et al., 2022). This approach promotes inclusion in credit and financial decision-making, but it also presents challenges in terms of capital growth, risk exposure, and operational efficiency. Furthermore, according to (Liu and Zhao, 2024), many cooperatives operate with limited technological resources and are subject to stricter financial constraints, which can affect their competitiveness compared to private banks.

Credit and collection policies

Credit and collection strategies are essential components of financial governance in both banks and credit cooperatives, as they play an important role in determining the integrity of the loan portfolio, liquidity levels, and the overall sustainability of institutions (Gichuhi and Omagwa, 2020). These credit strategies establish the requirements for borrower selection, loan granting, interest rate setting, and repayment schedule definition, while collection strategies describe the methods for payment tracking, delinquency management, and recovery of overdue debts. As mentioned (Soremekun et al., n.d.), an effective policy framework achieves a balance between promoting financial access and managing risk, enabling organizations to expand credit availability without compromising the quality of their portfolios or their financial stability.

The success of these strategies can vary considerably among different types of institutions. Banks tend to implement stricter underwriting processes, adopt risk-adjusted pricing, and use automated monitoring tools to reduce the likelihood of defaults (Adewuyi et al., 2023). On the other hand, it is mentioned that cooperatives, particularly those serving at-risk or informal communities, may adopt more flexible or community-focused lending practices, which could increase the risk of delinquency if not properly supervised (Karani Onyiko et al., 2024). Poorly executed credit and collection policies can result in an increase in non-performing loans, a decline in member confidence, and pressure on liquidity.

Financial inclusion and social value

Financial inclusion is an initiative aimed at ensuring that both individuals and businesses, especially those historically marginalized by conventional financial systems, have access to necessary and affordable financial products and services (Arner et al., 2020). This encompasses options such as credit, savings, insurance, and payment solutions, provided in a responsible and sustainable manner. In this regard, cooperatives play an essential role in facilitating financial inclusion, especially in rural and disadvantaged areas (Pasara et al., 2021). Their community framework and social objectives tend to prioritize accessibility and solidarity over profit maximization, positioning them as important contributors to minimizing financial exclusion and promoting regional development.

Furthermore, the concept of financial inclusion is increasingly associated with social value creation, which refers to the ability of financial institutions to generate favorable social effects in addition to economic benefits (Bharti and Malik, 2022; Ozili, 2020). This social value can manifest in various ways, such as promoting economic stability in low-income populations, supporting the growth of microenterprises, or strengthening cooperative values such as mutual support and democratic organization. While traditional banks also contribute to improving financial inclusion through technological advances and market growth, their contributions are often evaluated primarily from a financial perspective (Ediagbonya and Tioluwani, 2023).

3. METHODOLOGY

Approach and design

The research adopted a mixed-methods approach. The qualitative component allowed for exploration of the perceptions, opinions, and experiences of credit management and collection staff regarding the processes, challenges, and outcomes associated with portfolio management. The quantitative component, in turn, facilitated the analysis of specific financial data through the interpretation of accounting matrices, financial statements, and the application of financial indicators such as profitability, delinquency, and solvency ratio.

The design of this study was descriptive and correlational. On the one hand, it aimed to identify and describe the current credit and collection policies implemented by COAC Riobamba Ltd.; on the other hand, it sought to analyze the relationship between these policies and the institution's financial solvency during 2023. The analysis focused on financial statements and key indicators related to the non-performing loan portfolio and institutional profitability.

Study participants and instruments

The target population of the study consisted of 50 employees from the credit and collections department of the La Condamine branch of Cooperativa Riobamba Ltda., who provided direct information and insights based on their experience in implementing credit policies and recovering non-performing loans.

Regarding data collection techniques and instruments, the study group was given a structured multiple-choice questionnaire to gather qualitative information on lending and collection practices. Simultaneously, financial analysis matrices were used to record accounting data and key indicators, such as the level of delinquency, financial profitability, and the solvency index, which allowed for comparative analyses and the establishment of relationships between the variables studied.

Data analysis

Data analysis was carried out in two distinct phases, aligned with the qualitative and quantitative components of the research. In the qualitative segment, responses to the structured questionnaire administered to credit and collection staff were analyzed using thematic analysis. Common themes, obstacles, and strengths were identified and classified into established analytical frameworks: credit policy implementation, risk assessment practices, and debt recovery methods. Frequency analysis was used to measure opinions on each of these areas, facilitating the identification of the most important aspects requiring improvement in portfolio management.

For quantitative analysis, financial metrics such as the delinquency rate, ROA, ROE, and operating liquidity were obtained from the institution's financial statements and organized using financial analysis matrices in Excel. Data corresponding to the 12 months of 2023 were analyzed to identify patterns and monthly variations. To assess the strength and nature of the relationship between the delinquency rate and the two main factors (profitability and financial solvency), Pearson correlation coefficients were employed for statistical evaluation, and a 95% confidence level ($p < 0.05$) was applied to test the significance of these correlations, confirming the proposed negative relationship between increasing delinquency and overall financial health.

Ethical considerations

This research followed recognized ethical standards to safeguard participants' rights and manage institutional information responsibly. Participants in the qualitative segment were informed about the study's objectives and scope, as well as the completely voluntary nature of their participation. Prior to completing the questionnaire, participants provided their informed consent, ensuring the confidentiality of their responses and their exclusive use for academic purposes.

To preserve the anonymity of participants, no identifying information was collected, and responses were collected during analysis to avoid linking them to individuals. Additionally, authorization was obtained from the management of COAC Riobamba Ltd. to review and analyze the financial records and internal documents used in the quantitative aspect of the research. The study complied with the ethical research criteria established by the affiliated academic institution, ensuring transparency, integrity, and consideration of personal and organizational data.

4. RESULTS AND DISCUSSION

The research yielded significant results demonstrating the relationship between the credit and collection policies implemented by Cooperativa Riobamba Ltd. and their impact on financial solvency during 2023. The findings are presented below, distinguishing between the qualitative aspects obtained through the questionnaire administered to the credit and collection department staff and the quantitative data derived from the institution's financial analysis. From a qualitative perspective, employees at the La Condamine branch reported that, although there are clearly defined policies for granting loans, their implementation faces several challenges. The main issues identified include limited capacity for credit risk analysis and the absence of automated mechanisms to facilitate the efficient assessment of loan applicants.

Table 1.

Results of the interview on Credit and Collection Policies at the La Condamine Branch – COAC Riobamba Ltda., 2023

Aspects	***Findings***
Credit policies	There are clearly defined policies, but their implementation faces practical challenges.
Challenges identified	Limited capacity for credit risk analysis Lack of automated mechanisms for efficient applicant evaluation
Collection policies	Collections schedules and periodic reminders are implemented to ensure timely pyaments from debtors.
Weakness in collection	Insufficient proactive monitoring of delinquent loans. Resistance from some delinquent members during collection efforts.
Highlight strengths	Structured payment schedule Implementation of periodic reminders to debtors

Source: Results from interviews conducted with employees of the credit and collections department at the La Condamine branch of

Cooperativa Riobamba Ltda. Prepared by the author.

Table 2 highlights that the main challenge identified by respondents with regard to the cooperative's collection policies is insufficient monitoring of past-due accounts, with 40% of responses. This is followed by resistance from delinquent members, mentioned by 35%, reflecting a significant difficulty in recovering overdue loans. In contrast, aspects considered strengths, such as the existence of established schedules and the implementation of periodic reminders, were mentioned to a lesser extent, at 15% and 10%, respectively. These results underscore the need to strengthen portfolio management mechanisms to improve the efficiency of the collection process.

Table 2.

Perception of strengths and weaknesses in collection policies

Aspect evaluated	Percentage (%)
Insufficient monitoring	40%
Resistance from delinquent members	35%
Set schedules	15%
Regular reminders	10%

Source: Results from interviews conducted with employees of the credit and collections department at the La Condamine branch of Cooperativa Riobamba Ltda. Prepared by the author.

Table 3 provides a clear comparative overview of the strengths and weaknesses identified in collection policies. It shows that weaknesses account for 75% of the total, while strengths account for only 25%. This significant disparity reveals that staff perceptions are predominantly focused on identifying areas for improvement in the processes of monitoring and recovering overdue loans. The findings underscore the urgency of implementing more effective strategies to restore balance and strengthen the cooperative's financial stability.

Table 3.

Comparison between strengths and weaknesses in collection practices

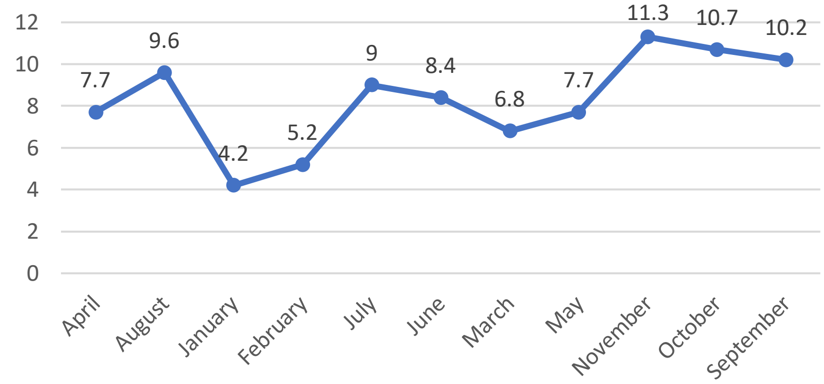
Collection policy category	Percentage (%)
Weaknesses	75%
Strengths	25%

Source: Results from interviews conducted with employees of the credit and collections department at the La Condamine branch of Cooperativa Riobamba Ltda. Prepared by the author.

On the other hand, analysis of the financial statements revealed that the cooperative's portfolio of non-performing loans experienced a sustained increase throughout 2023, reaching levels that negatively affected the institution's solvency ratio (Figure 1). The review of the accounting matrices showed that, as the level of past-due loans increased, there was a progressive decline in financial profitability indicators, which directly impacted the ability of the cooperative to meet its short-term obligations. t is noteworthy that the months with the highest delinquency rates coincided with a drop in operating liquidity, highlighting the institution's vulnerability to inefficient collection management.

Figure 1.

Monthly behavior of the overdue portfolio, profitability, and operating liquidity – COAC Riobamba Ltd., 2023

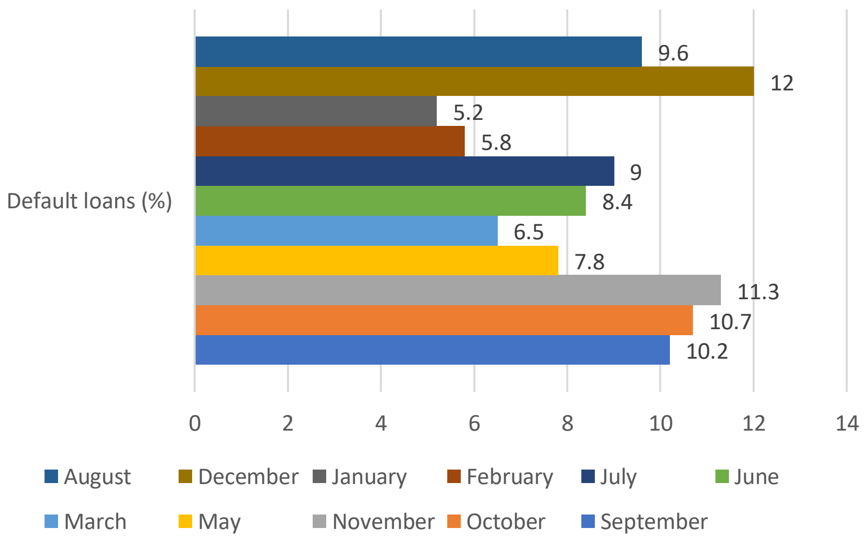


Source: Results from interviews conducted with employees of the credit and collections department at the La Condamine branch of Cooperativa Riobamba Ltda. Prepared by the author.

Figure 2 illustrates the monthly evolution of the cooperative's overdue portfolio during 2023, showing a sustained upward trend throughout the analyzed period. The year began with a delinquency rate of 5.2%, which increased month by month until reaching 12% in December. This pattern reflects a cumulative increase in delinquency, indicating inadequate portfolio recovery management and a progressive increase in credit risk. The continuous growth of the overdue portfolio throughout the year represents a critical challenge to the cooperative's financial stability, underscoring the urgent need to strengthen monitoring and collection mechanisms to prevent further deterioration of institutional solvency (see Figure 2).

Figure 2.

Effect of delinquencies on the profitability of cooperatives (2023)

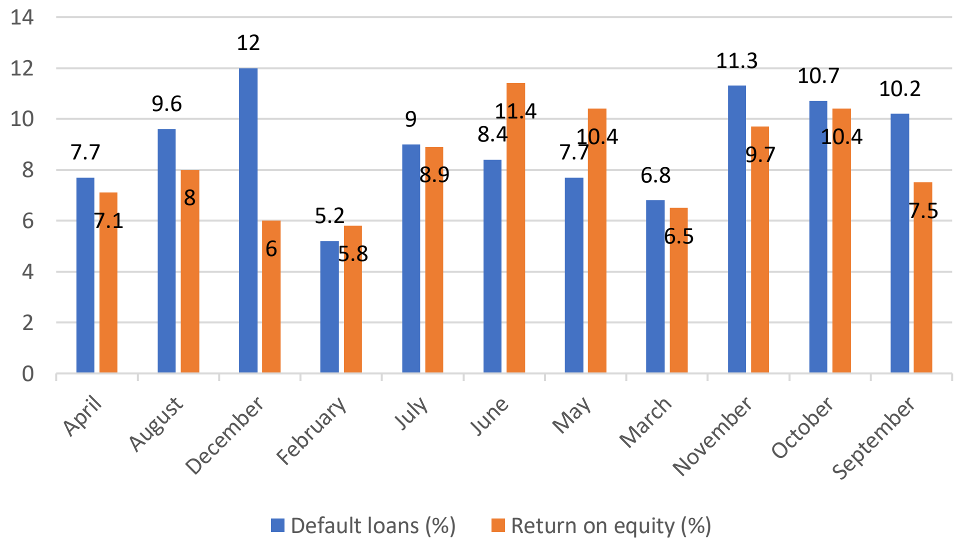


Source: Results from interviews conducted with employees of the credit and collections department at the La Condamine branch of Cooperativa Riobamba Ltda. Prepared by the author.

Figure 3 clearly illustrates the inverse relationship between the cooperative's delinquent loan portfolio and its financial profitability throughout 2023. As the delinquency rate rose steadily (from 5.2% in January to 12% in December), financial profitability declined progressively, from 12% at the beginning of the year to 6% in the last month of the period analyzed. This trend reflects how the increase in delinquency directly and negatively affects the institution's profitability, demonstrating that the accumulation of non-performing loans erodes its ability to generate income. The trend observed in this figure confirms the research hypothesis regarding the negative impact of ineffective portfolio management on the cooperative's financial sustainability.

Figure 3.

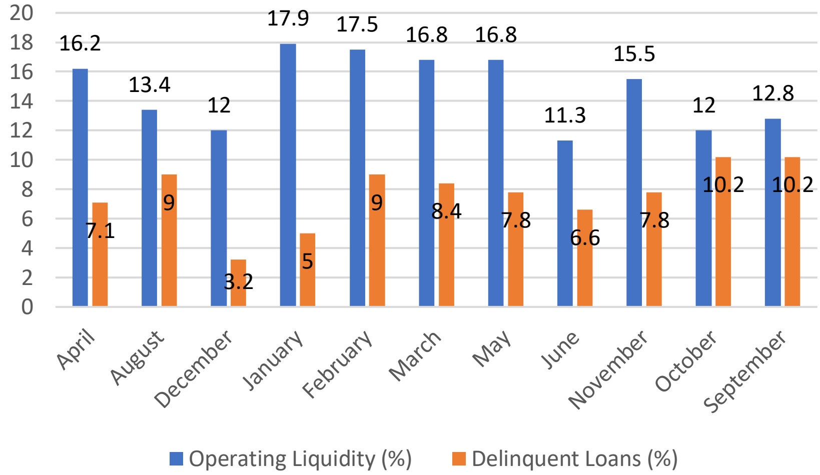
Non-performing loans vs. financial profitability (2023)



Source: Results from interviews with employees of the credit and collections department at the La Condamine branch of Cooperativa Riobamba Ltda. Prepared by the author.

Figure 4 illustrates the relationship between the evolution of the non-performing loan portfolio and the cooperative's operating liquidity during 2023. It shows that as the delinquency rate rose steadily from January to December (from 5.2% to 12%), operating liquidity followed a downward trend, falling from 18% at the beginning of the year to 11% at the end of the analyzed period. This inverse relationship indicates that increased delinquency directly affects the cooperative's ability to maintain healthy liquidity levels, thereby compromising its short-term solvency. The figure visually demonstrates that ineffective loan recovery not only impacts profitability but also erodes liquidity, weakening the institution's day-to-day operational capacity.

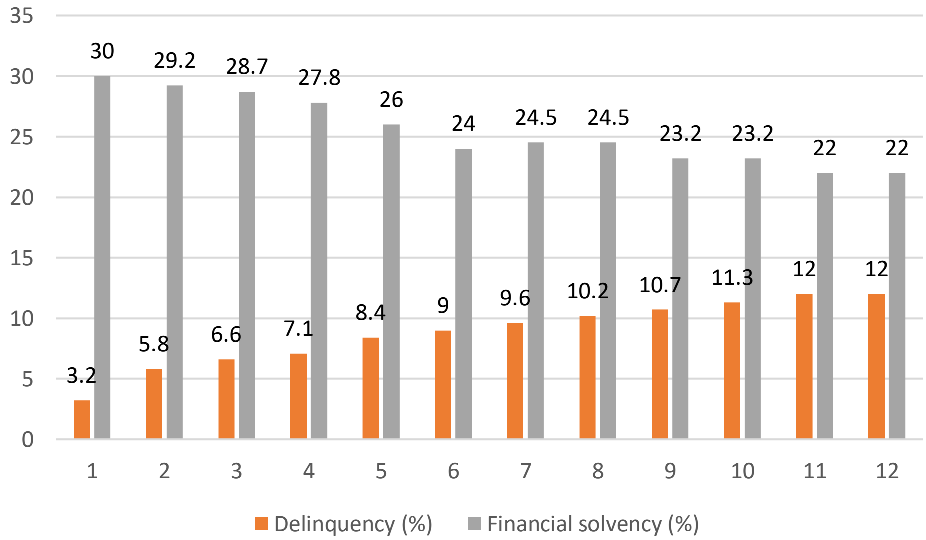
Figure 4.
Operating liquidity vs. delinquent loans (2023)



Source: Results from interviews conducted with employees of the credit and collections department at the La Condamine branch of Cooperativa Riobamba Ltda. Prepared by the author.

The results between the level of delinquency and financial solvency established an inverse relationship, that is, the higher the percentage of delinquency, the lower the financial strength of the cooperative. Pearson's correlation analysis revealed a coefficient of -0.997, indicating an almost perfect negative correlation between the level of delinquency and the financial solvency of the cooperative. This finding confirms that the increase in delinquency significantly impacts the institution's financial capacity. Moreover, the associated p-value was 1.04×10^{-12}, indicating a statistically significant relationship ($p < 0.05$), which supports the initial research hypothesis: inefficient portfolio management and lax credit policies negatively affect the organization's economic stability.

Figure 5.
Relationship between delinquency and financial solvency (2023)



The findings of this research consistently demonstrate that deficiencies in the credit and collection policies of Cooperativa Riobamba Ltd. during 2023 have had a significant negative impact on its financial solvency, as also reported in previous studies (Duche, 2016; Morejón, 2022; Angamarca and Santos, 2017). Qualitative data collected through questionnaires administered to staff at the La Condamine branch identified key limitations such as insufficient capacity for credit risk analysis and a lack of automation in loan assessment and portfolio monitoring processes. Similarly, quantitative analysis showed that the sustained increase in overdue loans is directly associated with the progressive decline in the cooperative's profitability and operating liquidity, an association statistically confirmed by Pearson's correlation coefficient.

The significance of these findings lies in their technical demonstration that poor portfolio management not only erodes institutional profitability, but also undermines the cooperative's overall financial stability, thereby impairing its ability to meet its short-term obligations. The upward trend in delinquency observed throughout 2023 highlights the institution's vulnerability in the absence of effective mechanisms to control and recover the overdue loans portfolio, underscoring the urgent need for strategic restructuring in this area. Compared to previous research, these results closely match the findings of Koveos and Randhawa (2004), who identified that microfinance institutions in Latin American contexts experience accelerated deterioration in solvency when collection mechanisms are deficient and risk assessments are not implemented in a timely manner. Similarly, the study by Uquillas and Simbaña (2022) on Ecuadorian cooperatives highlights that the automation of credit processes contributes significantly to reducing delinquency rates and improving the financial health of organizations. The results of this study reinforce these claims by providing recent and specific evidence from the case of Cooperativa Riobamba Ltd.

The results of this study align with international research that emphasizes the importance of efficient management and adequate regulation for the financial performance of cooperatives. For example, the study by Nair and Kloeppinger-Todd (2007) on rural financial cooperative networks shows that institutions operating under a prudential regulatory framework and with effective supervisory mechanisms tend to exhibit better financial results and sustainability, even in complex rural environments. This evidence reinforces the conclusion that strengthening internal controls and implementing more advanced systems for loan assessment and portfolio monitoring are critical factors for financial stability, as observed in the case of Cooperativa Riobamba Ltd.

Furthermore, the analysis of the Fintech landscape in Ecuador highlights how digital transformation and the adoption of financial technologies represent a key opportunity to modernize credit risk management and optimize collection processes (Ortega et al., 2024). The integration of technological solutions in cooperatives could facilitate the automation of credit evaluation procedures and the monitoring of overdue portfolios, contributing not only to the reduction of delinquency, but also to the improvement of liquidity and profitability. The findings of this study are consistent with research on the sustainability and vulnerability of microfinance institutions (MFIs) in the face of financial crises. As documented in the literature, MFIs, although traditionally considered resilient, have increased their exposure to global financial markets, which, in turn, has increased their vulnerability to adverse economic cycles (Dokulilová et al., 2009). This cyclical behavior, characterized by periods of rapid growth followed by abrupt contractions, reflects the trend observed at Cooperativa Riobamba Ltd., where the sustained increase in overdue loans led to a progressive decline in profitability and operating liquidity.

Similarly, warnings about opaque management practices and the absence of robust controls in MFIs—as highlighted by criminological analyses of the microfinance sector—find parallels in the situation of cooperatives, where a lack of automation and poor portfolio supervision have contributed to the deterioration of their financial health. These findings reinforce the urgent need for cooperatives to integrate better governance practices and internal control mechanisms, and to adopt stricter regulatory oversight to prevent the risks associated with over-indebtedness and unsustainable financial dynamics (Butcher and Galbraith, 2019; Wagner and Winkler, 2013).

In this regard, the available evidence suggests that a combination of technological innovation, effective prudential regulation, and the strengthening of internal management systems would not only help mitigate the risks identified in this study, but also improve the long-term sustainability of cooperatives in uncertain economic contexts. However, this study has certain limitations that should be acknowledged. First, the research focused exclusively on a single branch of the cooperative, which limits the generalizability of the findings to other branches or to the cooperative sector. Additionally, the availability of financial data was limited to information provided by the institution itself, which may have influenced the depth of the analysis. Finally, the temporal scope was limited to fiscal year 2023; therefore, it would be pertinent to consider longitudinal analyses covering multiple fiscal periods to obtain a more robust view of emerging trends.

Despite these limitations, the study contributes significantly to knowledge about financial management in cooperatives, providing a comprehensive perspective that integrates the perceptions of internal staff with objective financial data. This mixed-methods approach allows us to understand not only the figures, but also the internal dynamics that drive them, providing valuable information for strategic decision-making within the institution and for other cooperatives operating in similar contexts.

As future lines of research, it is recommended that the study be expanded to the inter-institutional level, including a sample of various cooperatives at the provincial or national level. This would allow for a comparative analysis of portfolio management practices and their financial impact. Similarly, it would also be relevant to further evaluate the effects of technological innovations and staff training on the efficiency of credit and collection processes. Finally, it is suggested that additional variables such as member satisfaction and comprehensive risk management be incorporated to provide a more holistic view of financial sustainability within the cooperative sector.

5. CONCLUSIONS

The study concludes that deficiencies in the credit and collection policies of Cooperativa Riobamba Ltd., particularly its limited risk analysis capacity and inefficient monitoring of overdue loans, have negatively affected its financial solvency during 2023. The quantitative results confirmed that the sustained increase in delinquency is inversely correlated with the institution's profitability and operating liquidity, as statistically supported by a Pearson correlation coefficient of -0.997 and a highly significant p-value. These findings underscore the urgency of implementing improvements in portfolio management by strengthening internal controls and adopting technological tools that can help reduce delinquency and ensure the cooperative's financial sustainability in the medium and long term.

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