

Profitability and Credit Risk of Savings and Credit Cooperatives. The Case of Peru

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Abstract This study reviews the literature that analyses profitability and credit risk of Saving and Credit Cooperatives. Credit risk is a fundamental factor because, different from other financial institutions, Saving and Credit Cooperatives seek risk by lending money to the least guaranteed part of the economic pyramid, and compensate that risk with interest rates higher than market rates. Although cooperatives are not-for-profit organisations, they cannot ignore the importance of sound financial statements, profit and loss, and balance sheet management.

The challenge of the cooperatives is twofold: (1) to offer their services to those who cannot obtain credit from the traditional financial institutions and (2) to find a balance between supporting the communities, yet without falling into the 'easy money' mismanagement, which over time led to bankruptcy or closure of many cooperatives worldwide, and about 150 in Peru over the last three years.

Keywords: Credit risk, profitability, saving and credit cooperatives

Introduction

The purpose of this study is to review the literature about performance of Savings and Credit Cooperatives (hereinafter, also called SACCOs) in terms of parameters such as credit risk and profitability. The study investigates in details the relationship between the two parameters and critically evaluates how these fit into the principles of cooperative operation. To do this, Da Silva, et al. (2017) suggest how to measure the compliance of SACCOs from a financial perspective. Likewise, Cruz Lázaro & Pérez Sosa (2020), among others, emphasize the importance of compliance of Savings and Credit Cooperatives from a financial perspective and how financial results of this type of organizations must be in order not to jeopardize their sustainability. With this information, Toledo (2009) measures the main activities that affect financial performance and the development of daily functioning of such cooperatives.

1.1. The Cooperative Movement

The cooperative movement is a doctrine that defends cooperation as a means to achieve a greater good, in order to satisfy common needs that exist within a group or community of people, or within an economy. Therefore, the cooperative movement is a set of institutions that protect the cooperation of their members, expressing themselves from a socioeconomic perspective as a means to bring great benefits to producers and consumers and better satisfy their needs.

As expressed by Carmona et al. (2012), cooperatives tend to defend themselves as an economic force that promotes financial inclusion of those most in need. Through the system of associations proposed by the cooperative principles, this doctrine advocates working together to achieve a common objective (Coba-Molina et al., 2019).

The cooperative movement is based on seven cooperative principles, the same throughout the world, to mark the difference between cooperatives and other forms of economic association. For this reason, cooperatives must combine economic purposes with the principles and values of the cooperative and supportive economy (Cueva Jiménez & Peláez Moreno, 2022). Even further goes Miño Grijalva (2013), who highlight how the solidarity and popular economy represented by cooperatives managed to establish an alternative economic model to the dominant one. These, for the most part, are functional to the needs of resource-rich companies that provide guarantees, while the cooperative movement has become an example of social transformation even for small companies that cannot provide such guarantees.

All this seems to contrast the world trend of the last twenty-five years towards globalization, but on the other hand it complies with the statement of Stiglitz (2006, p. 49), which indicates that “most of us will live locally: in our communities, states or countries. But globalization means that, at the same time, we will be part of a global community.” In the opinion of Alburquerque (2004), cooperatives can play an important role in local economic development, since this can be interpreted as an alternative approach to welfare policies to overcome poverty, and that seeks to influence the generation of employment and income by improving the productivity and competitiveness of different local productive systems. The horizon of cooperatives in the 21st century and their main challenge is to be local institutions that contribute to a globalized world.

1.2. Saving and Credit Cooperatives: A Short History

Within the cooperative world, Savings and Credit Cooperatives take great importance, since they represent the possibility of financing for companies and people who would have great difficulty accessing traditional financial sources, such as banks

The origin of microfinance, SACCOs being an important part thereof, derives from the Bangladeshi economist Muhammad Yunus, awarded the Nobel Prize in 2006, who, while investigating extreme poverty, visited several poor villages in his native Bangladesh. In 1976, he met a group of women who could not get out of the poverty trap because they were forced to sell their products at below market prices to loan sharks. Yunus was surprised to learn that the amount of money those women needed to break out of this vicious cycle was only 27 US dollars. He lent them money (interest-free) and got two results: the women exited their slavery condition and returned the money, showing that the idea could work (Yunus, 2001). This experience led to the establishment of Grameen Bank, which became a model for many microfinance institutions that since then developed in poor countries, poor regions, and slums (Barberá, 2004). Although other banks followed the example, it always remained doubtful whether the poorest part of the population possesses the ability to honour their financial obligations, given the high interest rates due to the high risk incurred in lending them money. Today, in the world there are very few institutions, aside of Savings and Credit Cooperatives, that are available to finance micro-business as a source of funding aimed at liberation from poverty.

García Bravo et al. (2021) define Savings and Credit Cooperatives as socioeconomic organizations that are not only capable of satisfying the economic needs of their members, but also of having an impact on the well-being of people and even of entire communities. Very positive about the role of Savings and Credit Cooperatives are Lara Gómez & Rico Hernández (2011). Due to their research on the situation in Mexico, they believe that cooperatives that operate in a local context still contribute to solving problems that affect the entire society.

1.3. The financial performance of Savings and Credit Cooperatives

Organizations such as cooperatives have as their main objective the generation of benefits for their members. The importance of the results lies in analysing how these organizations can be sustainable over time in economic, financial and social aspects (Barus et al., 2017). As observed by Báez Roa & Puentes Montañez (2018) and García Saltos et al. (2018), among the many financial factors that an institution must carefully monitor are the ability to honour debt to its depositor partners and the ability to conduct its operations with reference to the principles of good financial management necessary for any institution that grants loans to its members with sound credit risk management (Perez, 2017; Flores Malaver & Llantoy Phala, 2020). In this sense, two fundamental parameters have been identified in the literature: cash flow and operational efficiency (Quiroz Calderón, 2020). Cash flow allows the cooperative to honour its obligations to members and operational efficiency ensures that operations will lead to a positive financial year result (Mayorga Díaz, 2021). Savings and credit cooperatives do not necessarily have to generate profits (their first objective is social) but they cannot even generate losses, to guarantee the survival of the institution itself. The cooperative organization, although as an organization it has to ensure its economic efficiency to ensure its survival, must nevertheless be more vigilant about the utility it provides to its members and the society in which it is inserted (Mendiola et al., 2015).

1.4. Legal Framework of Saving and Credit Cooperatives

Due to their focus on offering financial services to the base of the social pyramid, those people and microenterprises that can offer little or no guarantees, Savings and Credit Cooperatives have to pay maximum attention to risk factors. For this reason, they are subject to many laws and regulations because, given the financial weakness of their clients (what they are looking for and to whom they try to offer their services), risk is a constant companion in the life of cooperatives. Therefore, to defend the rights of the members of the cooperatives themselves, as well as those of the entire community, the cooperative world is truly inundated with legal regulations to manage and minimize credit risk (Delfiner et al., 2007). Moreover, Lizarzaburu et al. (2018) and Gómez Méndez (2019)., notice how, given the large amount of cash flow management SACCOs are involved in, financial authorities are also concerned about the possibility of money laundering, corruption, and financing of terrorism.

1.5. Saving and Credit Cooperatives in Peru

The origin of microfinance in Peru goes back to the 1950s, but its growth in the private sector emerged in 1990 (Angulo Villarreal, 2019), supported by new economic liberalization policies, based on the theory of the Peruvian economist Hernando de Soto (De Soto et al., 1987), in which the economic activities of the poor had to be formalized to guarantee their access to financial services (Chen, 2017). However, this was no longer necessary because until the publication of this theory, microfinance was already growing in the world (and especially in Latin America, as pointed out by Ortega Pereira et al., 2017); and financial guarantees to grant credit were no longer essential. Instead of formalizing the poor, the lending institutions adapted to real circumstances to do business with those at the base of the economic pyramid (Borda Mamani & Basso, 2020). This result merits the effort of all those involved and the various initiatives to launch microfinance operations. The diversity involved in this sector is very notable, and this is also an important aspect for the evolution of the Peruvian microfinance system, since the three main lending entities concentrate only 38% of all loans, something that provides space for other institutions to emerge with the same capacity to obtain clients. Furthermore, the methodologies used by each microfinance institution are different, but none leaves the others behind. Thus, Los Olivos, a district of Northern Lima, has its own ‘Wall Street’, 18 financial institutions located along three blocks aimed at providing opportunities to the low-income population (Conger, et al., 2010), thus motivating them to create their own business.

In Peru, the SBS (*Superintendencia de Banca, Seguro y AFP*) enforces effective financial practices. The SBS divides Savings and Credit Cooperatives into three levels (modular scheme). At modular level 3 are cooperatives whose total amount of assets is greater than 65,000 Tax Units (UIT); In modular level 2, cooperatives whose amount is less than 65,000 UIT, but greater than 600 UIT, and in modular level 1, those that have a total amount of assets up to 600 UIT. A UIT is a variable amount of money that, as of January 2024, is worth 5,150 soles, approximately 1,400 USD. In Peru, as of December 2020, there were many microfinance institutions supervised by the SBS: 12 municipal savings banks, 7 rural savings banks (there were 10 in 2010), 9 Edpymes (Entity for Development of Small and Micro-Enterprises), and 437 SACCOs. These in turn were subdivided into 9 in Modular Level (ML) 3, 163 in ML2, and 265 in ML1. Just three years later, the total number of SACCOs still supervised (and therefore accredited) by SBS had shrunk to 287, 7 in ML3. 148 in ML2, and just 132 in ML1. These numbers confirm that the cooperative sector is presented as a very high risk one and therefore credit risk management is essential for the survival of those institutions.

Methodology

Credit cooperatives, by their very nature and by the essence of their cooperative principles, are in a better position to achieve the goal of sustainability than any other credit entity, and they have the greatest capacity to contribute to its economic, environmental and social objectives (González Castro, 2017). For this reason, this study aims to review the performance of Savings and Credit Cooperatives based on parameters such as credit risk (Gallegos Crisanto et al., 2020; Gutiérrez Janampa & Tapia Reyes, 2020) and profitability (Hayes, 1992; Luque González et al., 2019; Pelayo Cortés et al., 2019), and how these parameters comply with cooperative principles. To this end, the literature was reviewed on the importance of compliance from the financial point of view with the cooperative principles in SACCOs; and the way to measure them. Likewise, several studies were reviewed that emphasize the importance of the financial results that this type of organizations must have so that their sustainability is not affected (Espinoza Cruz et al., 2021).

The literature offers a large number of sources on the importance of profitability and credit risk management for SACCOs. This study used the following selection criteria.

- **Relevance.** A literature review should provide a broad view of most debated topics. Sources have been selected on the importance for, and impact on, the academic community and practitioners.
- **Balance.** The literature presents both optimistic and pessimistic views of the performance of SACCOs with reference to the two parameters object of this research, as there is no definitive conclusion about whether SACCOs adequately comply with the standard requirements of the credit industry. The goal of a review is to offer a balanced perspective of both sides.
- **Span.** Although this paper focuses on the microfinance sector in Peru, a look at the macroenvironment the country is in, seems relevant. Therefore, the selected literature belongs to the whole of Latin America.
- **Timeframe.** Microcredit is an evolving industry and therefore the main focus was on studies published over the last few years. However, the paper also considers a broader temporal scope in order to include historical context and trends.
- **Quality of sources.** Every effort was made to cite sources been published in high quality journals.

Two Challenges For Survival: Credit Risk And Profitability

3.1. The Savings and Credit Cooperatives

Savings and Credit Cooperatives are part of the cooperative movement, a concept that exists in most countries in the world, and which refer to common cooperative principles (Carmona et al., 2013; Escobar et al., 2018). These principles are: voluntary and open membership, democratic control of members, economic participation of members, autonomy and independence, education, training and information, cooperation between cooperatives, concern for the community. It is easy to understand that search for profitability contrasts with cooperative principles, which are based on social and solidarity aspects (Cueva Jiménez & Peláez Moreno, 2022). The solidarity approach is paramount to the cooperative vision and according to the two scholars, these organizations combine their principles with business objectives, looking at financial results, yet without sacrificing the fundamental values of the cooperative movement. In this environment, SACCOs are identified as organizations of a social and economic nature with the objective of satisfying the needs of the partners, looking at the same time to the well-being of the community and mutual help between members, and the entire society (García-Gutiérrez, 2000). Even clearer are Guamán Gualpa & Urbina-Poveda (2021),

who identify an exclusively social character in cooperatives since their main objectives are the well-being of the community and mutual help between members. De la Fuente Mella & Díaz Bravo (2013:232) point to the human factors, due to the close relationship SACCOs establish with their members, “the most influential components in perceived quality and corporate image”. The authors refer to the history of the cooperative movement that was originated by small farmers, producers and merchants, unions of workers and transporters, whose main goal was to offer financial services that larger institutions did not provide to the poorest part of the community. That is why cooperativism could be used as an alternative to the dominant models of socio-economic development, the same strategy that SACCOs follow in most countries today. (Lara Gomez & Rico Hernandez, 2011). Due to their focus on the solidarity and community-oriented economy, some SACCOs received help and support from the institutions of the Catholic Church (Lara Gomez & Rico Hernandez, 2011). The compliance of the cooperative philosophy with the principles of Social Doctrine of the Church led the Jesuit Fathers to promote SACCOs initiatives (Pardo Martinez & Huertas de Mora, 2017).

In recent years, cooperatives have added respect for the environment to their traditional approach. Escobar et al. (2018) highlight their socio-economic nature as solidarity organizations and observe that one of the most important characteristics is to involve members in the success of the institution since they are part of the community and it adds value to cooperate with it (Altamirano Salazar, 2018).

3.2. Financial Commitment of the Saving and Credit Cooperatives

The main objective of organizations such as cooperatives is to generate benefits for their members, since by increasing operational efficiency, they will be able to maintain their continuity in the market and diversify their products. (Zaniah Santo, 2017). Hinostroza Dueñas et al. (2021) observe that the significance of financial results lies in the analysis of how these organizations are economically, financially and socially sustainable over time. The cooperative system is quite dynamic, mergers and acquisitions do occur, which favours competition and search for efficiency (Rayo Cantón et al., 2010).

Among the many financial factors that an institution must closely monitor is the ability to develop its business in accordance with the principles of good financial management that are required of any institution that grants loans to its clients. In this sense, in this article two fundamental parameters will be discussed: credit risk and profitability. They are not the only parameters a SACCO should control, but it is highly unlikely that a successful concern would not take them into serious account. By their very nature and cooperative principles, SACCOs are closer than any other credit institution to agreeing on the values and dimensions of sustainability, and are better able to contribute to their economic, environmental and social objectives (Gualpa Guamán & Urbina Poveda, 2021).

3.3. Credit Risk

Credit risk is probably the main focus of Savings and Credit Cooperatives, due to the institutional objective of offering financing to the base of the economic pyramid, which has little or no collateral to guarantee the money received. Researchers have found many indicators to corroborate the requests of small business owners seeking financing. Many authors define credit risk as the parameter that measures the probability of credit default of a financial debt (Díaz Córdova et al., 2017 and Morales Ríos, 2022, among others).

Scholars and practitioners identify the following dimensions to measure credit risk.

Solvency: It is the company's ability to meet its obligations in a timely manner, whether in the short or long term. This is important to ensure that the company has enough money at any time to return to the contributing partners.

Stability: This is the ability of a company to maintain good financial health over a certain period of time. Volatility in finance is always a parameter of dubious evaluation. Stability (of cash at disposal, of income due to payment of interest by debtors, of loans granted, etc.) is a positive factor, highly valued by institutions, as well as by individuals who contribute cash to the cooperative.

Productivity: Efficiency in the use of resources. The main resource of a Savings and Credit Cooperative is money. Efficiency in the use of money means maintaining a percentage of cash available for payments, at a certain extent even to unexpected ones. In the banking sector, there is a regulation, called Basel III, that governs many related aspects and, among them, the minimum percentage of cash that banks must have at their disposal. Obviously, SACCOs cannot meet the same, rather strict, requirements of the banks, but the principle is valid and, although the percentage may be different, a certain amount of cash at hand is required to cover unexpected situations.

Overdue: This risk measure allows an institution to track loans that may generate losses due to customer insolvency. This is one of the most important parameters for credit risk management. On the one hand, overdue money is inevitable, since Savings and Credit Cooperatives lend funds to those entities (companies or people) that were unable to receive financing from the traditional financial system due to excessive risk. It is not surprising that, by providing loans to such entities, overdue loans and even defaults are not uncommon occurrences. As long as the amount of overdue loans is reasonable (a whole paper would be required to comprehensively discuss the meaning of the word 'reasonable' in this context), the risk is covered through higher interest rates compared to the traditional financial sector than the Savings and Credit Cooperatives charge their clients with. On the other hand, it is equally important for sound credit risk management that the 'reasonable' amount of overdue loans is always relatively low. Escobar Castillo et al. (2018) discuss the difficulties of the credit risk management systems used by many Savings and Credit Cooperatives. Such difficulties are due to the fact that, although with some exceptions, the majority of SACCOs are small organizations, which do not possess the resources to implement adequate risk management systems, as almost all larger and more structured institutions, like banks, do. Thus, an apparent paradox occurs: the financial entities that, due to their mission, accept higher credit risk, are those institutions that, in practice, do not implement sophisticated management strategies for the level of risk they face.

Credit risk is a difficult parameter to evaluate mainly because of the arduousness to find a commonly-agreed definition. Aside of the authors mentioned above, other scholars provide different definitions. Bourke (1989), Okumu & Oyugi (2016), Bikker y Vervliet (2017), Ngumo & Collins (2017), Tehulu (2017), Yitayaw (2021), Cueva Jiménez & Peláez Moreno (2022) identify the main factors of credit risk in delinquent payment, size, growth rate, liquidity, capital adequacy, capital structure, asset quality, operational efficiency, tax burden, management capacity, leverage, deposits, placements, liabilities, composition of the credit portfolio, interest rate policy, productivity, information technology, GDP, risk level, management quality, risk sensitivity, the company's ability to meet its obligations. In the middle of the 23 factors mentioned, some internal to the cooperative and others external, it is easy to understand how the evaluation of credit risk is an exercise permitted only to institutions equipped with sufficient knowledge and structure. As a consequence, Peruvian cooperatives in ML1 (or SACCOs of similar size in other countries) will find it difficult to measure credit risk appropriately and the same problem, although at a lesser extent, applies to most SACCOs at ML2.

3.4. Profitability

None of the cooperative principles mention, directly or indirectly, profitability. However, profitability is an important variable for the sustainability of any company, but in SACCOs it does not have the same fundamental importance as in private for-profit companies. Nevertheless, as pointed out by García-Gutierrez Fernández (2000), the profitability-related risk may be an explicative factor of financial risk.

Cooperatives are not-for-profit organizations; normally members do not receive dividends and even if they do, since all members have the same weight in the distribution of profits and given the large number of members, the amount distributed would not be economically significant. However, while Hinojosa Dueñas et al. (2021) admit that Savings and Credit Cooperatives are non-profit organizations, on the other hand they observe that there are also authors that recognizes the need to find financial efficiency, in order to sustain the fulfilment of its social purposes. In other words, profitability is important even for non-profit organizations since without orderly financial statements, it would be difficult to guarantee the survival of the cooperative and therefore the achievement of its objectives (Aranda Quispe et al., 2020).

Many authors identify in Savings and Credit Cooperatives (as well as in any other for-profit company) the return on assets (ROA) and financial profitability (ROE- return on equity) the most important indicators for correct financial management of cooperatives (Coba Molina et al. 2022). Other authors who suggest using ROA and ROE to measure the profitability of cooperatives (Cueva Jiménez & Peláez Moreno, 2022) also emphasize that profitability has become the most important financial indicator to measure the performance of cooperatives. Indeed, insufficient profitability would amplify the risk to sustainability. Coba-Molina et al. (2019) indicate members of the SACCOs and the entire community as entities whose commitment to the organization favourably impacts profitability, although neither partners nor the community directly benefit from that. Actually, none of these entities usually receives dividends from profitability, but positive financial statements mean long-term survival of the cooperative and a durable offer over time of financial services to members and, indirectly, to the community to which the members belong. Among the factors that affect profitability, Trejo-García et al. (2017) identify (a) directly related assets, (b) risk assets relative to total assets, (c) operating costs in relation to assets, and (d) the relationship between non-interest income and total assets.

According to Lapo Maza et al. (2021), profitability is influenced by the size of the cooperative, its assets, its solvency, its credit portfolio, and its liquidity, while Rivas Vinueza et al. (2021) add operating costs, financial costs and provisions to the list of parameters that affect performance of micro-financial institutions. The role of profitability is also recognized by Higuerey Gómez et al. (2019), who observe a correlation between the size of the cooperative, a greater diversification and a better ratio of assets to capital, although without establishing any cause-effect relationship between such variables. The same authors state that profits are important because they help form a capital base for future expansion and to cushion negative shocks, thus helping to ensure long-term survival.

3.4.1. Women's Role in Profitability of Credit and Savings Cooperatives

In addition, Savings and Credit Cooperatives have also been on the front line in the financing granted to women. This is especially true in the poorest countries, where in many cases the dominant culture has a sexist flavour and it is a fairly common opinion that women should be at home to take care of their children. Many researches (two of them being Améstica et al., 2021 and Carrión Gavilanes & Changó Casanova, 2022) show that when women are invested

with management positions, they have a positive impact on the creation of value in the company. Likewise, according to Hernández Ortiz et al. (2020) the presence of women in management positions increases the profitability of the company. Greater gender diversity in any organization leads to an increase in a company's competitive advantage, which boosts innovation. According to Esteban Salvador (2013) and Hernández Nicolás et al. (2016), gender diversity is associated with both profitability and value creation because there is a positive relationship between gender diversity among managers and financial performance. Moreover, women as debtors to Saving and Credit Cooperatives, often result as better repayer of their debts and more savvy managers of microenterprise's funds (Macías Somoza & Loor Colamarco, 2022). Achinelli Báez (2019:4), rather optimistically, goes as far as suggesting "an important impact the cooperative sector could have in eradicating the violence against women".

3.5. Education of Members of Saving and Credit Cooperatives

Savings and Credit Cooperatives lend money to people or members who are unable to receive financing from the traditional financial system due to excessive risk. The sustainability of the SACCOs, that is, their ability to pay depositor members depends on their evaluation of the credit risk granted to debtor partners. It can also be interpreted as the commitment to offer services that are not necessarily profitable but safe enough to that part of the community that needs them for business purposes. On the one hand, it is true that no educational credentials are needed to start a business: anyone can start own activity, even without formal education, and seek business success. On the other hand, compared to a few successful initiatives, there are many that fail within a few years, leaving the entrepreneur in debt and the lending institutions with unpaid loans. The bankruptcy of about 150 Peruvian SACCOs between 2020 and 2023 is a clear proof of this type of problem. The approach of the cooperatives seems to be too oriented towards granting of money and too little towards the educational development of the community. One of the pillars of the cooperative movement (education, training and information) lacks an adequate impact on the society (Carmona et al., 2013)

3.6. Analysis of the Saving and Credit Cooperative in Latin America – Peru as a Case Study

There are different models that explain efficiency, profitability and credit risk at a general level throughout Latin America and the world, and how these relate to each other. Fully Bressan et al., (2011) use one of them to analyse the insolvency of the Brazilian credit cooperatives: the PEARLS Model (Protection; Effective financial structure; Asset quality, Rates of return and costs, Liquidity, Signs of growth). There is also the DEA model (Data Envelopment Analysis), used to evaluate the operational efficiency of SACCOs. Campoverde Campoverde et al., (2019) evaluate the efficiency of Savings and Credit Cooperatives in Ecuador. Their DEA model uses a minimization/maximization (Mini-Max) process of objective functions subject to money input-output links. Another model used to evaluate the operational efficiency of Brazilian credit cooperatives is CAMEL, which takes into account variables such as Capital adequacy, Asset quality, Management capability, return Efficiency, and Liquidity (Da Silva et al., 2017).

The literature mentions many components of credit risk, without forgetting other risk factors that may impact SACCOs. García Bravo et al. (2021), identify 29 components associated to risk of Savings and Credit Cooperatives in Ecuador, grouped by Control Environment, Risk Assessment, Control Activities, Information and Communication, Supervision and Monitoring. Among them, those that seem most relevant to credit risk are risk matrices, disaster recovery plans, safeguards of financial resources, quality, truthful and timely information, and evaluation of internal control components. It is worth mentioning that many other components have indirect effects on credit risk.

López Jara (2017) mentions fraud prevention as another necessary step for risk management of Ecuadorian Saving and Credit Cooperatives, an activity that academic authors often forget to include. Therefore, it is essential that SACCOs establish control systems that guarantee adequate management of all the different types of risks that exist at the financial level.

Brito-Cabrera & Vasconez-Acuña (2022) also focus their research on credit risk of SACCOs in Ecuador and identify six components of this type of risk: decisions on interest rates active and passive, applicant evaluation strategies, collateral requirements, credit portfolio, delinquency, and recovery policies for periodic payments from debtors. Gualpa Guamán & Urbina-Poveda (2021), in their article about the determinants of SACCOs' financial performance, mention a directorial resolution that establishes the ten main indicators according to the Monetary and Financial Policy, and Regulation Board of Ecuador. Some of them are similar to the components described above, adding the amount of expenses, the ratio between assets and short-term liabilities (that is, the working capital of SACCOs), the concentration and volatility of portfolio, and deposits.

On the other hand, while capital companies have profitability as the main objective of their very existence, cooperatives see the world differently. Many authors (Cueva Jiménez & Peláez Moreno, 2020, among others) agree that the best financial ratios to evaluate profitability of Latin-American SACCOs are ROE and the ROA. From an institutional point of view, profitability is not one of the cooperative principles and therefore it cannot be among its objectives (Coba-Molina et al., 2019).

Finally, the next section discusses profitability, a fundamental variable in all cooperative analyses at a general level throughout Latin America and in the specific case of Peru. This variable, together with others that we already found, represents, according to Diaz et al. (2017), one of the six vital signs of a company: solvency, stability, productivity, profitability, late payment, and risk.

Peru is among the most developed Latin American countries as far as the microfinance sector is concerned because the country presents a flourishing micro-business sector. In fact, small and micro businesses produce 42% of the national GDP and employ 74% of the economically active population (Pait, 2009). Furthermore, thanks to established regulation and supervision authorities, Peruvian micro-businesses enjoy the confidence of investors (Conger et al., 2010).

Discussion and Conclusion

Savings and Credit Cooperatives play an important role in the economies of families and microbusinesses in many developing countries. As evidenced by Yunus (2007), in some cases a small amount of initial financing would be sufficient to allow the establishment of a microenterprise that can guarantee an, although minimal, level of economic development for the poorest part of the population. This benefit of SACCOs is recognized almost without exception.

The main problem is represented by the next step, expected by the founder of Grameen Bank, but not always corroborated by the results of academic research. Microenterprises, which represent the main client entities of SACCOs, very rarely manage to go from the level of survival to the level of development. Most microenterprises fail to grow, remain small, and do not increase the well-being of their owners above a minimum level, they do not generate more employment and (individually) contribute very little to the national economy. Furthermore, many of such microbusinesses have a short life, and there are frequent cases of micro-entrepreneurs who keep opening and closing activities without achieving a true economic

increase for themselves or the local economy. The main debate about microfinance concerns the role that this practice plays. Some authors are optimistic and highlight the advantages that microfinance brings to borrowers. These are the availability of money despite little or no guarantees, the willingness to accept high risk face to interest rates that are much more competitive than those offered by usurious institutions and the informal financial sector, and attention to local communities (García Reyes et al., 2019).

Most credit risk management tools are designed with an appropriate administrative structure in mind, which seldom fits the structure of small institutions. For example, in the opinion of Santa Cruz Marín (2014), the COSO model (acronym for the Committee of Sponsoring Organizations of Treadway Commission), is an effective instrument in the evaluation of internal control, since it includes all aspects to be considered, such as control environment, risk assessment, control, information and communication activities, as well as monitoring (Lawson et al., 2017). Nevertheless, García Bravo (2021) does not propose a credit risk management methodology suitable for small institutions when they mention the COSO model as tool for analysis of internal control processes in their study of fourteen cooperatives in Ecuador. It is clear that, with risk assessment being one of the parameters to monitor within a much larger and structured process, ML1 and ML2 cooperatives in Peru, or institution of similar size in other countries, will not be able to adopt this methodology, although it is highly valued at academic as well as at professional level. Once again, credit risk management appears to be a difficult task, especially for small-sized SACCOs that, aside of being the large majority of Saving and Credit Cooperatives in the world, are also the most exposed to the risk of low-income, low growth opportunity and high-risk customers.

Another limit found in SACCOs, perhaps with the exception of the largest and most structured ones, is the low quality of education (Lara Gómez & Rico Hernández, 2011; Coba-Molina et al. 2019). Many cooperatives do not have trained administrators, managers and directors. In many cases a diploma in accounting is enough to access positions of great responsibility, despite little or no professional experience. This cannot but negatively impact the evaluation of credit risk in such cooperatives. Inadequately educated management of the cooperative sector of course does not facilitate an appropriate evaluation of credit risk and therefore the well-being over time of the cooperative, its members and the entire community. On the other hand, there are also authors who doubt the effectiveness of cooperative sector and observe that SACCOs swim in a closed lagoon, with no real opportunities to grow. Again, according to the opinion of many scholars (Esteban Salvador et al., 2018 being one of them), the main reason is the lack of business education of microentrepreneurs. Indeed cooperatives, contrary to one of their principles, do not promote education enough, despite having an Education Committee, which should take care to increase knowledge in accounting, finance, marketing, sales, business management, and administration to their associates. The social theory, in principle appreciable, faces the generally small size of the Saving and Credit Cooperatives and, above all, the large number of members, which prevents the establishment of effective training programs (Lara Gómez & Rico Hernández, 2011). It's hard to blame the cooperatives for that. The problem is not the lack of will to develop education of the community, it is the lack of possibility due to the enormous effort required. For this reason, many authors have doubts about the possibility of the cooperative movement to achieve its objectives beyond guaranteeing the poorest a minimum standard of economic living.

Another hurdle is that the financial results of SACCOs depend on many factors. According to Nava Rosillon (2009) the calculation of financial indicators that express liquidity, solvency, operational efficiency, indebtedness, performance, and profitability is essential. All of these indicators are impacted by credit risk. Significant delays in the payment of interest and principal amount by debtors may reduce liquidity to a level incompatible with the cooperative's

obligations, which in turn would impact solvency. Debt has to be balanced, so that income can cover the needs of expenditure, and this balance can only be obtained if the institution operates efficiently (Aguilar et al., 2004). Finally, the profitability of cooperatives is not as important as it is in for-profit companies, but without reasonable profitability it is hard for the activities of a financial institution to proceed smoothly in the long term. Profitability is a way to finance low-cost loans and therefore all cooperatives should have profitability as a strategic objective of their management. As indicated by many authors, including Meneses & Macuacé (2011), profitability should be the main concern of microfinance entities. Savings and Credit Cooperatives were born to take charge of the financial risk of companies at the base of the socio-economic pyramid and then risk should be their daily bread. Cooperatives were created to offer financing to those who will never be able to find it in larger institutions due to the high risk compared to the parameters acceptable by such organizations. Therefore, it is essential that all microfinance institutions take great care in risk control and that those that face more risk, such as SACCOs, take even more care of it, starting with risk identification.

According to Álvarez Callahue & Apaza Tarqui (2019), through risk identification companies can analyse, evaluate, prioritise, control, document, and monitor various risks that may hinder or prevent the fulfilment of the organization's goals. Once again, practice clashes negatively with theory and the result is sub-optimal. Scientific research and practices in major financial institutions have indicated the path and many tools to carry out adequate risk control operations, although bankruptcies even of large banks in recent years call these practices into question (Lehman Brothers in 2008, Silicon Valley Bank and Credit Suisse in 2023, to name just the most well-known worldwide). But, if risk control is a common practice, although costly and difficult, in large banks, Savings and Credit Cooperatives, especially the smaller ones, such as those of ML1 and ML2 in Peru, have enormous difficulties in carry out adequate control.

If the poor business culture is one of the main problems of micro companies, an insufficient financial culture is also a frequent problem in these institutions. The majority of them begin their activities after a meeting of people who lack an appropriate macro- and micro-economic analysis (Uquillas & González, 2017), without capabilities to predict trends even in the short term, and above all motivated by a lot of enthusiasm for the possibility to save or raise money through an institution close to the community and then, hopefully, more flexible to their needs. If on the one hand these hopes comply with the cooperative principles (Pérez Espinoza et al., 2016), we cannot forget that there are other principles, as the principles of correct financial management, that take the driving seat. With the exception of some cooperatives in ML3, this is not what normally happens. The common sense and prudence of a good 'parent' cannot replace the lack of financial education. Based on what has been analysed in the previous sections, it seems essential that most SACCOs begin a path of adaptation made of steps that, based on the recent wind-up of Peruvian cooperatives, it would be guilty to delay even more. The analysis of the literature leads us to identify the following steps: The selection of SACCOs managers among people who have a minimum basis of accounting, financial, and business administration knowledge (King et al., 2018); establishment of practices, tools, and controls that are appropriate for the size of the cooperative, but at the same time offer reasonable guarantees of sound risk management and compliance with basic financial rules (Cuevas-Villegas, 2002; Aguilar et al., 2004); facilitating the development of the cooperative, through internal growth or through mergers and acquisitions (Méndez Naya, 2017).

As a last word, we must not forget the very good work being carried out by SBS, which has taken charge of the supervision of more than 400 cooperatives since 2019. It is true that a long process awaits to lead the cooperative sector under acceptable practices but the work and results of the first years give good hope for the future of the cooperative movement in Peru. Last but not least, it is worthwhile to discuss the controversial relationship between microfinance and

women. On the one hand, the research results confirm that women are better clients of microfinance institutions. According to Esteban Salvador (2013), women, accustomed to managing family finances, are more reliable entrepreneurs, are better debt payers and therefore guarantee less financial risk to credit institutions. Financial responsibility contributes to women's sense of self-esteem and recognition of an important role in society. Despite, in general, a lower educational level compared to men, female entrepreneurs do not perform significantly worse and, on the contrary, their performance is often better. However, research shows that microfinance does not have as great an impact on women's empowerment. Indeed, establishing a microbusiness is often considered a survival method for the poor, in environments where self-entrepreneurship is a forced choice due to lack of alternative job opportunities rather than a carefully planned business decision. Hernandez et al. (2016) argue that, in the vast majority of cases, microfinance institutions are oblivious to women's immediate investment needs. Without rational explanation, the same institutions that should develop the less guaranteed parts of society tend to rely more on granting loans to men (Esteban Salvador et al., 2018). This may be the consequence of customs rooted in a misunderstood common sense. As a consequence, in many cases, even when women receive financing, the money is actually managed by the men of the family, the husband, father or brothers. If one of the objectives of microfinance is the empowerment of women, it cannot be said that it has achieved transversal success in all countries and in all cultures. A lot of effort is still needed for women to be truly recognized at the same level as men in business administration, finance and even microfinance.

References

ACHINELLI BÁEZ M. 2019. "Paraguay: Measures of corporate social responsibility and gender". *Revista Científica de la UCSA*.6(3): 3-17. DOI: 10.18004/ucsa/2409-8752/2019.006.03.003-017

AGUILAR, G., CAMARGO, G., MORALES, R. 2004. *Análisis de la morosidad en el Sistema Bancario Peruano. Informe final de investigación*. Instituto de Estudios Peruanos. Available at <http://www.cies.org.pe/sites/default/files/investigaciones/analisisde-la-morosidad-en-el-sistema-bancario-peruano.pdf>

ALBURQUERQUE F. 2004. "Desarrollo económico local y descentralización en América Latina". *Revista Cepal* [online], 82:157-171. Available at: <https://repositorio.cepal.org/server/api/core/bitstreams/7b6eb921-47ce-4448-86d4-65a3695b9c26/content>

ALTAMIRANO SALAZAR A. 2018. "Identificación de los Stakeholders y conflictos de interés en las Cooperativas de Ahorro y Crédito del Ecuador". *Visión del futuro* 22(2). Available at: www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1668-87082018000200003&lng_es&tlng_es

ÁLVAREZ CALLAHUE W., APAZA TARQUI E. 2019. "Riesgo de crédito y morosidad en la cooperativa de ahorro y crédito Qorilazo". *Revista Valor Contable* 6(1):26-32

AMÉSTICA L., DOMÍNGUEZ A., DIONICIO V., ROMERO R. 2021. "Influencia del directorio en el desempeño del Mercado Integrado Latinoamericano". *Revista Finanzas y Política Económica* 13(1):225-251. DOI: 10.14718/revfinanzpoliticon.v13.n1.2021.10

ANGULO VILLARREAL N. 2019. "El Estado y la promoción de modalidades económicas asociativas en el Perú". *Revista Cultura Económica* 37(97):113.142

ARANDA QUISPE L., CANAZA ORDOÑEZ D., PAREDES MONZOY S. 2020. “Gestión financiera y liquidez en la empresa Nosa Contratistas Generales SRL”. *Revista De Investigación Valor Contable* 7(1), 19-27. Available at https://revistas.upeu.edu.pe/index.php/ri_vc/article/view/1391

BÁEZ ROA M., PUENTES MONTAÑEZ G. 2018. “Parámetros financieros para la toma de decisiones en pequeñas y medianas empresas del municipio Duitama, Colombia”. *Revista de Ciencias Sociales* 24(1): 67-84. Available at <https://www.redalyc.org/articulo.oa?id=28059578006>

BARBERÁ, E. 2004. “Diversidad de género, igualdad de oportunidades y entornos laborales”. *Revista de Economía Pública, Social y Cooperativa* 50:37-53. Available at: <https://www.redalyc.org/pdf/174/17405003.pdf>

BARUS J., MUTURI W., KIBATI D., KOIMA D. 2017. “Effect of Management Efficiency on Financial Performance of Savings and Credit Societies in Kenya”. *Journal of Strategic Management* 2(1): 92-104 DOI: 10.47672/jsm.287

BIKKER J., VERVLIT T. 2017. “Bank profitability and risk-taking under low interest rates”. *International Journal of Finance & Economics* 23: 1-16. DOI: 10.1002/ijfe.1595

BORDA MAMANI R., BASSO D. 2020. “El surgimiento del cooperativismo en el Perú: la Convención-Cusco”. *Emancipación-Ponta Grossa* 19 (especial):24-32. DOI: 10.5212/Emancipacao.v.19.1914664.002

BOURKE P. 1989. “Concentration and Other Determinants of Bank Profitability in Europe, North America and Australia”. *Journal of Banking and Finance* 13: 65-79

BRITO-CABRERA D.; VÁSCONEZ-ACUÑA L. 2022. “Gestión crediticia y su incidencia en la liquidez de las Cooperativas de Ahorro y Crédito”. *Revista Arbitrada Interdisciplinaria KOINONIA* VII(1) Edición Especial. DOI: 10.35381/r.k.v7i1.1808.

BRITO GÓMEZ, D. 2018. “El riesgo empresarial”. *Universidad y Sociedad* 10(1): 269-277. Available at: <http://rus.ucf.edu.cu/index.php/rus>

CAMPOVERDE CAMPOVERDE J., ROMERO GALARZA 1 C., BORENSTEIN D. 2019. “Evaluación de eficiencia de cooperativas de ahorro y crédito en Ecuador: aplicación del modelo Análisis Envolvente de Datos DEA”. *Contaduría y Administración* 64 (1): 1-19. DOI: 10.22201/fca.24488410e.2018.1449

CARMONA IBAÑEZ P., MARÍNEZ VARGAS J., POZUELO CAMPILLO J. 2013. “Diagnóstico económico-financiero de la empresa cooperativa. Un estudio comparado de los años 2004 y 2007”. *REVESCO Revista de Estudios Cooperativos* 110: 43–95. DOI: 10.5209/rev_REVE.2013.v110

CARRIÓN GAVILANES A., CHANGO CASANOVA D. 2022. “La diversidad de género y el rendimiento en el sector financiero ecuatoriano”. *Revista Finanzas y Política Económica* 14(2): 561-586. DOI: 10.14718/revfinanzpolitecon.v14.n2.2022.10

CHEN H. 2017. “Peruvian Microfinance: Mergers and Acquisitions and Industry Outlook”. *Perspectives on Business and Economics* 35(7): 113-124

COBA MOLINA E., DÍAZ CÓRDOVA J., CARRIÓN GAVILANES A., CHANGO CASANOVA D. 2022. “La diversidad de género y el rendimiento en el sector financiero ecuatoriano”. *Revista Finanzas y Política Económica*, 14(2): 561-586. DOI: 10.14718/revfinanzpolitecon.v14.n2.2022.10 scielo

COBA MOLINA E., DÍAZ CÓRDOVA J., TAPIA-PANCHI E., MANSILLA SEPÚLVEDA J. 2019. “El rendimiento financiero explicado a través de los principios cooperativos. Un estudio en las cooperativas de ahorro y crédito del Ecuador”. *Contaduría y Administración Especial Gobierno Corporativo* 64(4): 1-21. DOI: 10.22201/fca.24488410e.2020.2448

CONGER L., INGA P., WEBB R. 2009. *El Árbol de la Mostaza - Historia de la Microfinanzas en el Perú*. Lima, Peru: Universidad San Martín de Porres.

CRUZ LÁZARO L., PÉREZ SOSA F. 2020. “Evaluación de la estructura de capital de las Sociedades Cooperativas de Ahorro y Préstamo de México”. *REVESCO Revista de Estudios Cooperativos* 136, e71858. DOI: 10.5209/reve.71858

CUEVA JIMÉNEZ N., PELÁEZ MORENO L. 2020. “Factores que inciden en el rendimiento de las cooperativas de ahorro y crédito”. *Revista de Ciencias Sociales y Humanidades* 7(34). DOI: 10.35381/r.k.v7i1.1808

CUEVAS-VILLEGAS C. F. 2002. “Fijación de precios: costo plus (costo más margen) y target costing (costeo objetivo)”. *Estudios Gerenciales* 83: 13-30. Available at: https://www.icesi.edu.co/revistas/index.php/estudios_gerenciales/article/view/80/78

DA SILVA T., LEITE M., GUSE J., GOLLO V. 2017: “Financial and economic performance of major Brazilian credit cooperatives”. *Contaduría y administración* 62(5): 1442-1459. DOI: 10.1016/j.cya.2017.05.006

DE LA FUENTE MELLA H., DÍAZ BRAVO I. 2013: “Analysis of the determinants of the perceived quality service provided by credit union: an application based on models of structural equations”. *Ingeniare. Revista chilena de ingeniería* 21(2): 232-247

DE SOTO H., GHERSI E., Ghibellini M. 1987. *El otro sendero*. Diana; Instituto Libertad y Democracia:Peru

DELFINER, M., PAILHÉ, C., PERÓN S. 2007. Microfinanzas: un análisis de experiencias y alternativas de regulación. *Revista de Temas Financieros* IV (1): 69-70. Available at http://www.sbs.gob.pe/Portals/0/jer/EDIPUB_VOLUMEN4/63-118.pdf

DÍAZ CÓRDOVA J., COBA MOLINA E., HIDALGO VARGAS C., VALENCIA NUÑEZ E. Y BONILLA GANÑAN J. 2017. “Conjuntos borrosos aplicados al sector cooperativo del Ecuador”. *Política y Cultura*, 47: 227-253

ESCOBAR CASTILLO A., VELANDIA PACHECO G., NAVARRO MANOTAS E. 2018. “Gestión del conocimiento y competitividad en las cooperativas con sección de ahorro y crédito”. *REVESCO* 127: 90-115. DOI: 10.5209/REVE.59769

ESPINOZA CRUZ M., ESPINOZA GAMBOA E, CHUMPITAZ CAYCHO, H. 2021. “Control interno y gestión empresarial de centros comerciales peruanos en tiempos de la actual pandemia”. *Contabilidad y Negocios* 16(31): 57-70. DOI: 10.18800/contabilidad.202101.004

ESTEBAN SALVADOR M. 2013. “¿Son las cooperativas más favorables a la presencia de mujeres en los consejos de otras entidades?” *REVESCO. Revista de estudios cooperativos* 110: 96-128. DOI: 10.5209/rev_REVE.2013.v110.41443

ESTEBAN SALVADOR M., PÉREZ SANS F., GARGALLO CASTEL A. 2018. “Áreas rurales y cooperativas: iniciativas de mujeres para el Desarrollo”. *REVESCO, Revista de Estudios Cooperativos* 127: 116-138. DOI: 10.5209/REVE.58397

FLORES MALAVER F., LLANTOY PHALA M. 2020. “Préstamo bancario: oportunidades vs riesgos”. *Revista de Investigación Valor Contable* 6(1): 44-53. DOI: 10.17162/rivc.v6i1.1257

FULLY BRESSAN V. G., BRAGA MARCELO J., BRESSAN ANGEL A., RESENDE FILHO M. 2011. “Avaliação de insolvência em cooperativas de crédito: uma aplicação do sistema PEARLS”. *Revista de Administração MacKenzie* 12(2):.113-144

GALLEGOS CRISANTO, F., HUARANCA PADILLA, V., MARTÍNEZ HUISA, S. 2020. “El estado de flujos de efectivo y la solvencia de las empresas comercializadoras del Perú en el periodo 2010-2015”. *Revista de Investigación Valor Contable* 4(1): 81-94. DOI: 10.17162/rivc.v4i1.1242

GARCÍA BRAVO, M.; HURTADO GARCÍA, K.; PONCE ÁLAVA, V.; SÁNCHEZ MOREIRA, J. 2021. “Análisis del proceso de control interno en cooperativas de ahorro y crédito”. *COODEC Cooperativismo y Desarrollo* 9(1): 227-242.

GARCÍA-GUTIÉRREZ FERNÁNDEZ, C. 2000. “Análisis de la solvencia y del riesgo económico-financiero de la sociedad cooperative”. *REVESCO Revista de Estudios Cooperativos* 72:51-87

GARCÍA REYES K., PRADO, E., SALAZAR, R., MENDOZA, J. 2019. “Cooperativas de Ahorro y Crédito del Ecuador y su Incidencia en la conformación del Capital Social (2012-2016)”. *Espacios*, 39 (28): 32. Available at: <https://www.revistaespacios.com/a18v39n28/a18v39n28p32.pdf>

GARCÍA SALTOS M., OLLAGUE VALAREZO J., CAPA BENÍTEZ L. 2018. “La realidad crediticia para las pequeñas y medianas empresas ecuatorianas”. *Universidad y Sociedad* 10(2): 40-46. Available at: <http://rus.ucf.edu.cu/index.php/rus>

GÓMEZ MÉNDEZ J., JANAMPA ACUÑA N. 2019. “Pericia contable y lavado de activos en Cooperativas de Ahorro y Crédito del Perú”. *Quipukamayoc* 27(55): 25-29. DOI: 10.15381/quipu.v27i55.17175

GONZÁLEZ CASTRO R. 2017. “La implementación de los sistemas de control de gestión en las empresas de nueva creación: Una revisión de la literature”. *Contabilidad y Negocios* 12(23): 78-95. Available at: <https://revistas.pucp.edu.pe/index.php/contabilidadyNegocios/article/view/19352>

GUALLPA GUAMÁN A.; URBINA-POVEDA M. 2021. “Determinantes del desempeño financiero de las cooperativas de ahorro y crédito del Ecuador”. *Revista Economía y Política* 34: 112 – 129

GUTIÉRREZ JANAMPA J., TAPIA REYES J. 2020. “Liquidez y rentabilidad. Una revisión

conceptual y sus dimensiones”. *Revista de Investigación Valor Contable*, 3(1): 9-30. Available at: https://revistas.upeu.edu.pe/index.php/ri_vc/article/view/1229

HAYES S. 1992. *A quién debe usted conceder crédito: análisis no financiero. Crédito y cobranzas: guía práctica* (2a ed). pp.87-104. D.F. Ecasa: Ciudad de México

HERNÁNDEZ ORTÍZ M., GARCÍA MARTÍ E., MARTÍNEZ JIMÉNEZ R., PEDROSA ORTEGA C., RUIZ JIMÉNEZ C. 2020. “El efecto de la diversidad de género sobre el rendimiento de las sociedades cooperativas agroalimentarias españolas”. *REVESCO. Revista de Estudios Cooperativos* 133: 1-13. DOI: 10.5209/reve.67337

HERNÁNDEZ NICOLÁS C., MARTÍN UGEDO J., MINGUEZ VERA A. 2016. “La influencia del género en la dirección de las Sociedades cooperativas españolas sobre la rentabilidad y endeudamiento: un análisis empírico”. *REVESCO. Revista de Estudios Cooperativos* 122: 135-164. DOI: 10.5209/rev_REVE.2016.v122.52021

HIGUERAY GÓMEZ A., YAGUACHE AGUILAR M., INGA LLANEZ E. 2019. “Incentivos fiscales, liquidez y solvencia en las empresas del Ecuador”. *Revista Venezolana de Gerencia* 2: 361-373. Available at: <https://www.redalyc.org/articulo.oa?id=29063446020>

HINOSTROZA DUEÑAS G., DE LA OLIVA DE CON F., ACOSTA CHÁVEZ D. 2021. “Clasificación de cooperativas financieras en Ecuador y su afectación en la eficiencia financiera de los segmentos 4 y 5 en Portoviejo”. *Cofin* 15(2)

KING A., AMÉSTICA L., MORAGA V., AREVALO M. 2018. “Influencia del consejo de administración en el desempeño de las empresas chilenas”. *Opción* 34(87): 50-71

LAPO MAZA, M., TELLO-SÁNCHEZ, M., MOSQUERA-CAMACAS, S. 2021. “Rentabilidad, capital y riesgo crediticio en bancos ecuatorianos. Investigación Administrativa”, 50(127), 18-39. DOI: 10.35426/iav50n127.02.

LARA GÓMEZ G., RICO HERNÁNDEZ A, 2011. “La contribución de las cooperativas de ahorro y Crédito al desarrollo local en Querétaro, México”. *REVESCO Revista de Estudios Cooperativos* 106. DOI: 10.5209/rev_REVE.2011.v106.37376

LAWSON B., MURIEL L., SANDERS P. 2017. “A survey on firms' implementation of COSO's 2013 Internal Control–Integrated Framework”. *Research in Accounting Regulation* 29(1):30-43. DOI: 10.1016/j.racreg.2017.04.004

LIZARZABURU E., BARRIGA G., NORIEGA E. 2018. “Gestión integral de riesgos y antisoborno: un enfoque operacional desde la perspectiva ISO 31000 e ISO 37001”. *Universidad & Empresa*, 21(36): 79-118. DOI: 10.12804/revistas.urosario.edu.co/empresa/a.6089

LÓPEZ JARA A., CAÑIZARES ROIG M., MAYORGA DÍAZ M. 2018. “La auditoría interna como herramienta de gestión para el control en los gobiernos autónomos descentralizados de la provincia de Morona Santiago”. *Cuadernos de Contabilidad* 19(47): 80-93. DOI: 10.11144/Javeriana.cc19-47.aihg

LUQUE GONZÁLEZ A., PEÑAHERRERA MELO J., ORDOÑEZ SALCEDO J. 2019. “Compración de los resultados del balance social como herramienta de gestión de los casos de

Cacec y Chibuleo”. *Revista Chakiñan*.7:104-117)

MACÍAS SOMOZA E., LOOR COLAMARCO I. 2022. “Efectos de la pandemia por Covid-19 en cooperativas de ahorro y crédito: estudio de caso”. *COODES Cooperativismo y Desarrollo* 10(2):366-382. Available at: <https://coodes.upr.edu.cu/index.php/coodes/article/view/506>

MAYORGA DÍAZ M., ESPINOSA JARAMILLO M., GUAIGUA VIZCAÍNO M., CAPUZ GUANANGA L. 2021. “La absorción de cooperativas bajo el control de la Superintendencia de Economía Popular y Solidaria. Revista Dilemas Contemporáneos”: *Educación, Política y Valores (Edición Especial)* VIII(43)

MÉNDEZ NAVA J. 2017. “Fusiones horizontales de empresas y estrategias de diferenciación de product”. *Estudios de economía* 44(2): 173-184

MENDIOLA A., AGUIRRE C., AGUILAR J., CHAUCA P., DÁVILA M., PALHUA M. 2015: “Sostenibilidad y rentabilidad de las cajas municipales de ahorro y crédito (CMAC) en el Perú”. *Serie: Gerencia para el Desarrollo* 47. ESAN Ediciones

MENESES C., MACUACÉ O. 2011. “Valoración y riesgo crediticio en Colombia”. *Finanzas y Política Económica* 3(2): 65-82

MIÑO GRIJALVA W. 2013: *Historia del cooperativismo en el Ecuador*. Serie Historia de la Política Económica del Ecuador: Quito, Ecuador

MORALES RÍOS E., RIVERA OLAZÁBAL J., PIPA HUAMANI E. 2022. “La evaluación crediticia y su relación con la morosidad de los MIPYMES en las cooperativas de ahorro y crédito-2021”. *Revista de Investigación Hatun Yachay Wasi* 1(2) :9 - 18. DOI: 10.57107/hyw.v1i2.19

NAVA ROSILLÓN M. A. 2009. “Análisis financiero: una herramienta clave para una gestión financiera eficiente”. *Revista venezolana de Gerencia* 14(48): 606-628

NGUMO K., COLLINS, W. 2017. “Determinants of Financial Performance of Microfinance Bank in Kenya”. *Journal of Finance and Accounting* 8(16) (online)

OKUMU O., OYUGI L. 2016. “Factors Influencing financial performance of savings and credit cooperative societies in kisumu country, Kenya”. *International Journal of Current Research* 8(5):31293-31310

ORTEGA PEREIRA J., BORJA BORJA F., AGUILAR RODRÍGUEZ I., MONTALVÁN BURBANO R. 2017: “Evolución de las Cooperativas de Ahorro y Crédito en Ecuador, 2000-2015”. *Semestre Económico* 20(45):87-216

PAIT S. 2009. “The Microfinance Sector in Peru: Opprtunities, Challenges, and Empowerment with Gender Mainstream”. *Working paper*, WEMAN Programme

PARDO MARTÍNEZ L., HUERTAS DE MORA M. 2017. “Modelos influyentes en las cooperativas de ahorro y crédito en Colombia”. *REVESCO Revista de Estudios Cooperativos* 125: 109-133

PELAYO CORTÉS M., JOYA ARREOLA R., VELÁZQUEZ NÚÑEZ J., LEPE GARCÍA B. 2019. “Supervisión del control interno en microempresas mexicanas”. *Retos de la Dirección* 13(1): 1-16. Available at: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2306-91552019000100001

PÉREZ ESPINOZA M., ESPINOZA CARRIÓN C., PERALTA MOCHA B. 2016. “La responsabilidad social empresarial y su enfoque ambiental: una visión sostenible a futuro”. *Revista Universidad y Sociedad* 8(3): 169-178

QUIROZ CALDERÓN B. 2020. “Credit Scoring Una Herramienta Para Minimizar el Riesgo de Crédito de las Instituciones Microfinancieras-Perú”. *Quipukamayoc* 28(56):. 69-75. DOI: 10.15381/quipu.v28i56.17697

RAYO CANTÓN S., LARA RUBIO J., CAMINO BLASCO D. 2010. “Un Modelo de Credit Scoring para instituciones de microfinanzas en el marco de Basilea II”. *Journal of Economics, Finance and Administrative Science* 15(28):.89-124

RIVAS VINUEZA M., CABANILLA GUERRA G., COELLO BAJAÑA M. 2021. “El impacto del riesgo crediticio en la rentabilidad de cooperativas de ahorro y crédito ecuatorianas”. *Universidad y Sociedad* 13(23): 459-466

SANTA CRUZ MARÍN M. 2014. “El control interno basado en el modelo COSO”. *Revista de Investigación Valor Contable* 1(1): 37-43. DOI: 10.17162/rivc.v1i1.832

STIGLITZ J. 2006. *Cómo hacer que funcione la globalización*. 1ª ed. Ciudad de México: Editorial Taurus

TEHULU, T. 2013. “Determinants of financial sustainability of microfinance”. *European Journal of Business and Management* 5(17): 152-158

TOLEDO E. 2009. “Microfinanzas: diagnóstico del sector de la micro y pequeña empresa y su tecnología crediticia”. *Contabilidad y Negocios* 4(8): 23-32.

TREJO GARCÍA J. C., MARTÍNEZ GARCÍA M. A., VENEGAS MARTÍNEZ F. 2017. “Administración del riesgo crediticio al menudeo en México: una mejora econométrica en la selección de variables y cambios en sus características”. *Contaduría y Administración* 62(2): 377-398. DOI:10.1016/j.cya.2017.01.003

UQUILLAS A., GONZÁLEZ C. 2017. “Determinantes macro y microeconómicos para pruebas de tensión de riesgo de crédito: un estudio comparativo entre Ecuador y Colombia basado en la tasa de morosidad”. *Ensayos sobre Política Económica* 35(84): 245-259. DOI: 10.1016/j.espe.2017.11.002

YITAYAW M. 2021. “Determinants of Profitability and Financial Sustainability of saving and credit cooperatives in Eastern Ethiopia”. *International Journals of Rural Management* 17(2). DOI: 10.1177/0973005220980599

YUNUS M. 2007. *Banker of the poor*. Aurum Press:London, UK.

ZANIAH SANTOS L., FULLY BRESSAN V., RODRIGUES MOREIRA V., EUGÉNIO DE LIMA R. 2020. “Risco de crédito e eficiência técnica nas cooperativas de crédito brasileiras.

