

Microcredit in Credit Unions: a case study of Sicoob Credivale

JOSÉ MARIA RIBEIRO NETO

UNIVERSIDADE FEDERAL DOS VALES DO JEQUITINHONHA E MUCURI (UFVJM)

NALDEIR DOS SANTOS VIEIRA

UNIVERSIDADE FEDERAL DOS VALES DO JEQUITINHONHA E MUCURI (UFVJM)

AGNALDO KEITI HIGUCHI

UNIVERSIDADE FEDERAL DOS VALES DO JEQUITINHONHA E MUCURI (UFVJM)

AIRTON CARDOSO CANÇADO

FUNDAÇÃO UNIVERSIDADE FEDERAL DO TOCANTINS (UFT)

MÁRCIO COUTINHO DE SOUZA

UNIVERSIDADE FEDERAL DOS VALES DO JEQUITINHONHA E MUCURI (UFVJM)

Agradecimento à orgão de fomento:

The authors would like to thank the Federal University of Jequitinhonha and Mucuri Valleys for the necessary financial support given to this research.

MICROCREDIT IN CREDIT UNIONS: A CASE STUDY OF SICOOB CREDIVALE

1 INTRODUCTION

Credit unions emerged in the 19th century as a way to transform the scenario of income inequality, enabling peculiar forms of loans to its members (SINGER, 2013), aiming to meet the population excluded from the traditional financial market. After more than a century, Mohamed Yunus, observing a similar situation among the inhabitants of Bangladesh, developed the Grameen Bank, a financial institution focused on microcredit, which uses solidarity principles to enable its activities (YUNUS, 2008).

Moving on to the Brazilian reality, during the 1970s, 1980s, and early 1990s, microcredit was provided without any regulation by organizations of various legal frameworks, generating a variety of models. At the end of the 1990s, regulations that privileged the lending institution were created through the adoption of the minimalist model, which prioritized the sustainability of microcredit institutions, without worrying about the training of borrowers (SAMPAIO, 2016).

Social inequality has also become a characteristic of Brazilian society, resulting in a large contingent of people with incomes that place them below the poverty line. This situation is aggravated by the difficulty in accessing financial credit to start productive enterprises or work activities. Access to the financial system is a privilege of part of the population and the exclusions occur due to different factors: geographical, financial, market, and even lack of education. As for the geographical factor, the situation becomes more emblematic in regions with a low average Human Development Index (HDI), such as the Jequitinhonha and Mucuri Valleys in the state of Minas Gerais.

With the Lula Administration, there was a paradigm shift in which financial inclusion became one of the goals to be achieved. With this, the microcredit policy went through a reformulation, especially with the creation of the National Productive Oriented Microcredit Program (PNMPO) and the Productive Oriented Microcredit Law (MPO). However, it is noteworthy that although the reformulations promoted by the Government focused greatly on the situation, they ignored the methodology and existing conceptualizations on the theme.

As a consequence, Sampaio (2016) points out that this plurality of objectives (profitability, sustainability, social, productive, and financial inclusion) and the diversity of understandings about microcredit have permeated and still greatly influence the effectiveness of the national regulatory framework.

The offer of credit would be a means to circumvent the problems pointed out since it is a way to finance new businesses or, in the case of existing ones, to improve technology, hire and qualify employees, or even to pay debts or build up cash to fund the operational activities of the enterprises. Given this context, the Brazilian Central Bank and the National Monetary Council have been acting to encourage microcredit, acting on three fronts: dissemination and hypertrophy of the channels to financial services; creation of instruments to adapt services to the lower-income segments; and guarantee of the quality of financial services.

Regarding those channels, credit unions can take a leading role, since they have a history of acting in specific sectors, such as rural credit. However, with advances in the regulatory framework on microcredit and cooperativism, these legal entities now can make their relations and services more flexible, reaching a greater variety of people.

The Jequitinhonha and Mucuri valleys in the state of Minas Gerais have credit unions in all of their hub cities (Teófilo Otoni, Nanuque, Carlos Chagas, Almenara, Araçuaí, and Jequitinhonha), with the *Cooperativa de Crédito de Livre Admissão do Vale do Mucuri*

(Sicob Credivale) being one of them. Considering that Sicob Credivale has been operating for over 30 years in the aforementioned regions, this paper asks the following questions: how is the portfolio of microcredit services offered by the institution, and what is the level of customer satisfaction with the services offered. Given this questioning, this study aims to analyze the relationship between the specific line of microcredit that could be offered by Sicob Credivale and the satisfaction of its cooperative members.

The main relevance of this study is in understanding the expectations of the oriented microcredit program and the effective delivery of microfinance services by credit unions. In this sense, the identification of the elements that could negatively influence the implementation of the line is an important contribution for the science and public policy makers. Furthermore, the understanding of the services provided by the cooperative generates information that can be useful for the improvement of these services, the replication in other cooperatives, and for the development or modification of public policies in the field of financial inclusion.

2 CREDIT COOPERATIVISM

Cooperativism, which has mutualism as its foundation, is known as an associative movement, but it is also constituted as a social doctrine and economic model (FORGIARINI, 2018). According to Melo and Scopinho (2015), cooperativism is a social movement or doctrine mainly dominated by the Rochdalean school of thought, which is characterized by the political concern for social transformation accepting the idea that the infrastructure can determine changes in the social superstructure.

Cooperation has been observed since the dawn of humanity (ASSIS; LOPES, 2020), however, it was only with the rise of industrial capitalism that it took on its most systematic form. With the rupture of the social model in force until then, industrial capitalism brought about huge economic growth contrasted by misery and exploitation of the lower classes, forcing workers and peasants to seek resistance measures, among them, the association.

In this context, 28 workers influenced by Owen's ideas came together to create the organizational model that would be ideal for the distribution of the social product. From this meeting emerged the Rochdale Equitable Pioneers Cooperative in England, in a district of the same name, present in the county of Manchester (SCHNEIDER, 2012). It was a form of work that mixed different forms of cooperativism: consumption, production and, in part, credit (it offered the custody and application of values to workers) (SINGER, 2013). Besides the pioneering of modern cooperativism, the Rochdale experience was responsible for developing the basis for the values and universal principles of cooperativism.

However, they realized that the custody and application (credit activities provided by the cooperative) did not meet the real needs of the poor population, because their income was too low to allow the accumulation of resources. This population layer needed credit to survive and face eventual adversities, such as crop losses, unemployment crises, natural disasters, among others. Thus, a few years after the emergence of the consumer cooperative, the first credit unions emerged (SINGER, 2013).

Credit cooperativism, according to the Organization of Cooperatives of Brazil (OCB, 2019, p. [online]), is the branch "composed of cooperatives that are intended, primarily, to provide, through mutuality, the provision of financial services to its members, being assured access to financial market instruments". It originated in Prussia with Friedrich Wilhelm Raiffeisen and Herman Schulze, public men sensitive to the hunger faced by the poorer classes.

In 1852, Schulze reorganized his old anticipatory money association, creating the Schulze-Delitzsch Credit Union, which provided credit independent of the borrower's profession, requiring only the endorsement of two other members. Meanwhile, Raiffeisen, in

1864, after failures with the delivery of credit through philanthropic institutions, adapted the model of the Schulze-Delitzsch Credit Cooperative to meet local needs, creating the Heddesdorf Association of Loan Banks, the first rural credit cooperative (JACQUES; GONÇALVES, 2016).

Both experiments succeeded in their purpose, generating great social impact and financial robustness for the associations. As a result, cooperativism spread across Europe and later throughout the world through the replication of these two models, the development of other cooperatives from the mixture of elements present in the two cooperatives, and by establishing the first federations and unions of rural credit cooperativism (SINGER, 2013).

Credit unions are seen as great alternatives for financial inclusion because they: promote the humanization of the financial system since they keep the credit interest and capital remuneration at fairer levels (SILVA; GUERRA JUNIOR, 2012); focus on local negotiations, boosting a specific economy; prevent capital outflow, helping the growth of peripheral regions; divide the profit (when existing) among the members; and have organizational characteristics based on mutuality and self-management that facilitate the selection and monitoring of credit (SANTOS et al., 2019).

Given the above-mentioned characteristics, the history of credit supply for specific sectors, and especially a large number of cooperative members from the pre-free admission period, the Central Bank of Brazil (BCB) identified credit unions as one of the pillars for the dissemination of microcredit in Brazil when developing the microcredit supply policy.

3 MICROCREDIT: CONCEPT, DIMENSIONS, AND CHARACTERISTICS

Yunus (2008) understands that microcredit is the offering of small loans focusing on the poor and low-income microentrepreneurs as well as loans of small and medium amounts regardless of real and tangible collateral. Pereira and Souza (2017) state that microcredit fits into the context of microfinance, which is a range of diverse financial services that, in addition to microcredit, include micro-savings, microinsurance, real estate credit, among others.

Oliveira (2007 apud SOUZA; PEREIRA, 2017) points out that microcredit is a macro idea and currently considered a new global trend, whose basic principles are sustainability and focus on the poor productive population, with values compatible with the real need and payment capacity of the target audience and little bureaucracy. The author states that the microcredit proposal is a trust relationship between the customer and the financial organization that involves solidarity and credibility for both parties (OLIVEIRA, 2007 apud SOUZA; PEREIRA, 2017).

One reason why microcredit is greatly admired is that it presents itself as a potential 'win-win' solution, as both clients and financial institutions benefit. This is because microcredit can be approached from more than one dimension.

Considering that microcredit emerged as an alternative to the lack of credit for the needy population, the first dimension to be highlighted should be the social one. The experiences with microcredit throughout the world have shown that, when it is well applied, it improves the income and living conditions of its clients. In this sense, Neri (2008) points out that the producer, when accessing credit, can establish credit history and trust, making investments that can serve as a structural exit route out of poverty. Yunus (2008) finds that the poor often need money more than training because, when dealing with adversities for their livelihood, they develop income-generating skills, lacking only the necessary capital to transform their living situation.

Yunus (2008) argues that despite its great social potential, microcredit cannot be seen as an assistentialist activity since it, at some point, ends up generating incorrect incentives, increasing the number of defaulters. For the author, microcredit must be administered by a public or private manager aiming for positive results.

The search for a positive result is one of the factors that also affect the other dimension of microcredit: that of the financial institution. Besides the challenge of enabling financial access to the underprivileged, microcredit must perform this activity sustainably, i.e., a good outreach with a profitable return and low defaults (NERI, 2008).

Furthermore, Neri (2008) points out that microcredit can be seen as a public policy carried out with a private spirit in which profit-maximizing private institutions benefit by expanding their portfolio with new clients, while at the same time contributing to the fight against poverty.

Thus, it is noteworthy that the dimensions of microcredit go beyond the simple vision that the supplier and the borrower have about this mechanism. Different approaches to public policy are decisive to determine the means and results of this policy, for one can encourage measures that prioritize the acceleration of social transformation or that facilitate the sustainability of the financial institution.

Moving on to the characteristics and technologies used in microcredit, it can be seen that they stem directly from the search to meet the needs arising from the restrictions inherent to its market. The main difficulties faced by the underprivileged when contracting credit from financial institutions stem from four factors: the high operational cost of credit transactions for this sector, the absence of real guarantees, the asymmetry of information, and the difficulty of monitoring (NERI, 2008).

In a brief review of the literature on these technologies, eight characteristics present in microcredit services were identified, as can be seen in Table 1:

Table 1 – Characteristics of Microcredit

No.	Characteristics	Description
1	Productive Credit	Microcredit is aimed at supporting the productive sector, but specifically, small businesses managed by low-income people and is not intended for consumption.
2	Absence of collateral	By promoting financial inclusion, microcredit borrowers, in general, do not have real guarantees to back them up, so the use of alternative guarantees is indispensable for the viability of the activities.
3	Oriented Credit	The institutions that provide credit not only provide values, but also transmit the necessary knowledge for the efficient use of these values, through the use of credit agents that are responsible for all the stages of the financing process.
4	Dynamic or progressive incentives	A loan with increasing value is a strategy that is based on a progressive increase in credit as the customer conveys greater confidence to the institution. This trust stems from a history of successful contracts with the operator, with punctual loan payments and full repayment of previously contracted amounts.
5	Low transaction cost and high operational cost	In microcredit operations, the transaction cost is considered low because of three factors: proximity to the client (microcredit institutions operate close to their clients' homes or workplaces), minimum bureaucracy (few procedures to take out the loan), and agility in credit delivery (short deadlines between the request and the credit delivery), while the operational cost is high because, in order to allow a low transaction cost, there are expenses with training and travel of agents, besides the costs necessary to operate with short deadlines.
6	Regular payment schedule and quick loans	The installments usually start to be charged shortly after the amount is deposited and with a short period of time between them. With this, the institution receives part of the money before the expected return on investment, which forces the borrowers to be more disciplined and avoid undue spending.
7	Strong social impact	Microcredit can be a robust mechanism in the promotion of public policies and social inclusion, by providing opportunities and income for a portion of the population that cannot find jobs in the labor market.
8	Focus on women	Microcredit programs, in general, target women. This is due to the fact that the behavior of female entrepreneurs tends to promote greater social change than the behavior of male borrowers.

Source: elaborated by the authors based on Barone and others (2002) and Mendonça and Soares (2016).

Table 1 shows Productive Credit, Absence of collateral, Oriented Credit, Dynamic or progressive incentives, Low transaction cost and high operational cost, Regular payment schedule and quick loans, Strong social impact and Focus on women as microcredit service characteristics. In this sense, it is highlighted that microcredit is aimed at supporting the productive sector, but specifically, small businesses managed by low-income people and is not intended for consumption. The institutions in this sector need to provide credit and transmit the necessary knowledge for the efficient use of these values, acting proximity to the client, with a minimum bureaucracy and agility in credit delivery (generating a high operating cost, especially with the adaptations for operate with short deadlines) (MENDONÇA; SOARES, 2016).

The focus on women is directly linked to the social impact of the microcredit. Microcredit programs, in general, target women because behavior of female entrepreneurs tends to promote greater social change than the behavior of male borrowers. They invest more in the study and health of their families. However, the microcredit can be a robust mechanism in the promotion of public policies and social inclusion, by providing opportunities and income for a portion of the population that cannot find jobs in the labor market (YUNUS, 2008).

Although there is no single methodology, the specificities common to this type of business induce institutions to adopt a series of measures aimed at the efficient allocation of resources to foster the development of micro-businesses, allied with a low default rate.

4 METHODOLOGICAL PROCEDURES

The research was outlined as a case study due to the methods employed, the research environment, the theoretical approach, and data collection and analysis techniques. The case study is a type of qualitative and/or quantitative research, "understood as a category of research that has as its object the study of a unit" (PRODANOV; FREITAS, 2013, p. 60) and may use different methods of data collection (VERGARA, 2013).

Within the case study, we opted for the use of the mixed methods technique, with a qualitative stage and a quantitative one. In the qualitative stage, we use semi-structured interviews for identify and understand the perception of Siccob Credivale managers concerning microcredit services, as well as the reasons that led them to choose or not to provide them. In this stage, three members of the cooperative's board of directors were interviewed. This number was limited based on the internal organization of the cooperative so that each sector responsible for credit was represented.

Qualitative content analysis was used to better understand the information transmitted by the interviews. In the content analysis, the categories were defined through the 'by mile' procedure, i.e., the system of categories was only found after the result of the analogical and progressive classification of the elements, which resulted from a process of material preparation, coding, and categorization. In this process, 29 themes were identified, which were separated by a differentiation process, and then grouped, generating a system with eight categories: characterization of the interviewee; profile of the Sicoob Credivale Cooperative; profile of credit users; default; view on microcredit and the PNMPO; economic and practical feasibility of microcredit for the Cooperative; dissemination and incentives for microcredit lines; and alternative credit lines to Sicoob Microcredit.

The quantitative stage was aimed at identifying: (i) the satisfaction of the cooperative members with the current services provided by Sicoob Credivale; (ii) their interest in hiring microcredit services; (iii) and a possible relationship between the provision of these new services and greater user satisfaction. To achieve these objectives, a transversal survey was used.

The sample size of the research had 113 members, whose data were compared with the updated data on gender and age of the population provided by the credit union to ensure the representativeness of the sample. The union informed that there were no differences between the members' profiles in each municipality, so there was no need to have participants from the 22 municipalities where Sicoob Credivale is present. This sample allowed for a 95% confidence level, with a 9% margin of error.

After applying the survey questionnaires, the data were transcribed into Microsoft Excel and analyzed, at first, using descriptive statistics, with simple arithmetic. In this step, the satisfaction of the clients with the credit services provided by the cooperative (general and cooperative members who own a company or business) was analyzed, utilizing the observation of the grades given for each step; The analysis also measured the interest in the microcredit service from positive reviews about taking out loans with the peculiarities of this model and from the evaluation of the existing services.

Secondly, the data present in Excel were exported to the 'GNU PSPP' Software for the correlation analysis between customer satisfaction with the services provided by the cooperative and their interest in the microcredit service. To perform the correlation of variables, we chose to use the Spearman correlation (non-parametric) due to the limited number of responses (113).

5 REGARDING THE MICROCREDIT OFFER BY THE SICOOB CREDIVALE COOPERATIVE

In the qualitative stage, three members of the management (Manager, Credit Analyst, and Director) were interviewed. To highlight Sicoob Credivale's characteristics, we sought to analyze its history by identifying the cooperative's origin; the main changes perceived by the interviewees; the credit services most commonly provided; and, as the interviews progressed, we also ended up identifying the behavior that the cooperative's management has maintained throughout its history.

According to the statements presented in the interviews, Sicoob Credivale was initially a rural credit cooperative, founded in 1988 in Teófilo Otoni by local farmers. During its 33 years of existence, the cooperative has faced a series of changes, but the most relevant ones for this study were the transformation into a free admission cooperative and the change in the governance profile.

Regarding the transformation into a free admission cooperative, in addition to the external impacts (notably the possibility of increasing and diversifying services and member profiles), there were relevant internal impacts on the cooperative. Interviewee 2 points out that the cooperative had to adapt and learn to provide services to different sectors: "that's when we started to learn, to specialize in this Legal Entity area, which is more complex" (INTERVIEWEE 2).

Furthermore, the transition of the board of directors, which occurred with the change in the cooperative's governance, was identified as a very relevant change. For 32 years, Sicoob Credivale was chaired by the same person. In 2020, the presidency changed for the first time, which was accompanied by a change in the board's profile.

In this sense, Interviewee 3 states the governance structure changed, accompanied by a change in the board of directors. According to him, the new governance is based on a strategy of sustainability, continuity, and growth:

The cooperative started to adopt a new credit policy, a new strategic positioning with credit and its members. It also has a new positioning concerning the growth of its branches, the growth of its member base, investments in structure, image, and

renovation of the branches, so that they can have conditions to create a base and grow the business. The current board and directors lean more towards growth.

The profile of the board of directors is directly related to the last change identified by the interviewees. Traditionally focused on serving the rural public (which is more conservative, as will be seen in the next categories), the Sicoob Credivale cooperative had, for 32 years, a board that reflected this profile. In the interviewees' statements, one can perceive, implicitly and explicitly, that the previous directors had a more conservative profile and that this was reflected in the option to improve more traditional decisions.

It was identified that the cooperative does not offer specific lines of microcredit, and Interviewee 2 highlighted that the main reason for not offering them was the posture of the former board of directors. "They were more conservative. Maybe they thought it wouldn't be an attractive line. It wasn't a tradition of ours either."

It is noteworthy that, as a consequence of the conservative profile, the search for security and sustainability tended to be a guideline in the conduct of activities. With this, the cooperative sought to perform its activities with fewer risks. However, this directly impacted the offer of microcredit, since, according to what Interviewee 1 said, there was the understanding that offering more traditional lines tended to be more sustainable than the microcredit lines.

Moving on to credit services, loans with no specific destination are observed to be prevalent. According to Interviewee 1 (2020), the most common are personal loans aimed at individuals and working capital, which is "a credit aimed at companies to finance their business in a very broad way, whether it is to finance goods, employees, payroll, so it is quite unspecific".

Interviewee 3 also pointed out that, in the context of the pandemic, with the reopening of commercial activities in Teófilo Otoni (where the cooperative's headquarters are located) and the region, there was an increase in the demand for working capital credit: "Working capital, for companies, whether micro, small or medium-sized companies [...] also for investment, but, at this moment, especially working capital because the consumption demand is very high" (INTERVIEWEE 3).

Besides these two modalities, the interviewees also mentioned the services of anticipation of receivables, from legal entities associated with the cooperative, and rural credit. The latter was divided into two modalities: one aimed at funding activities and the other at investing in productivity improvement.

As for the profile of the credit user, it was noticed that Sicoob Credivale's credit lines are practically exclusive to members. Financial services such as consortiums, insurance, and saving accounts are available to the general public, however, "when it comes to credit lines, it is necessary that the person is a member of the cooperative" (INTERVIEWEE 1).

Regarding the profile of the cooperative members, it was observed that most of them are linked to rural activities. Although the free admission has added traders and service providers to the list of members, it can be seen that the largest entrepreneurs in the region are also linked to rural activities. The management understands that the rural producer members have a conservative profile, while the businessmen are more entrepreneurial. It is noted that there is also a tendency for members to initially resist getting alternative lines of credit (a statement reinforced by the large adhesion to credit without a specific destination).

Since the credit (and microcredit) users are cooperative members, understanding the requirements for joining Sicoob Credivale became a very relevant theme for this study. There are two forms of association: the conventional and the digital account. Any individual or legal entity can join the cooperative, as long as they present their identification documents and pay the membership fee, which is R\$100.00 for conventional accounts, and R\$20.00 for digital accounts.

In the interviewees' understanding, the membership fees are accessible to the low-income population, especially in the digital account modality. Considering that, in research conducted by Neri (2008) with CrediAmigo, it was found that 93% of microcredit clients had businesses with sales lower than R\$ 5.000,00, but with an average profit of R\$ 1.166,00; one can conclude that the values charged for membership would be accessible to most consumers of the microcredit service.

It was identified that the cooperative presents default rates (around 1%) well below the market average, justified by the interviewees as resulting from a careful credit analysis. When analyzing the delinquency of only low-income borrowers, it was verified by the interviewees' statements that this group is the one that presents the highest liquidity, due to their 'name appraisal' and the need to clean their names (from prior defaults) to contract other loans (essential for the continuation of their activities).

We observe that, with the small borrowers, they are more concerned. As a rule, defaults in the group of borrowers are lower. We see that they have great esteem for their name... that is how small borrowers are. Some consider that their name is their honor [...] so we observe a very high liquidity index in this segment (INTERVIEWEE 2).

As for the practical peculiarities for implementing the microcredit line, initially, it is worth mentioning the restriction imposed by the absence of a credit agent or another specialized professional in the area within the cooperative. However, the hiring of new employees was mentioned as part of the strategy of the new governance of the cooperative, including the sector of customer service and guidance to microentrepreneurs. Moreover, according to the other interviewees, the cooperative has enough qualified personnel to be assigned to this function.

Regarding the external work done by the credit agents, it was highlighted that the orientation and performance outside the branch is already a practice within the cooperative and that it could be expanded for this specific sector, including the hiring of credit agents.

When analyzing the existence of difficulties due to the peculiarities of the operationalization of microcredit, such as shorter deadlines for providing credit, the interviewees were unanimous in stating that, for the cooperative, there is no practical difficulty for the implementation of the line. For them, Sicoob Credivale would be fully capable of providing Sicoob Microcredit, as long as it organized itself to do so and if there was a need to provide the line.

In relation to economic viability (NERI, 2008; MENDONÇA; SOARES, 2016), the interviewees pointed out that the maximum interest rate limits established by the microcredit line are at percentages above those practiced by the cooperative, so that the economic factor would not be an obstacle. It was also pointed out that, even if the line was not very profitable, if the members were interested, it could be made viable by adding other services.

The interviewees pointed out that there is a lack of knowledge on the part of their associates and other borrowers about the advantages of financial services aimed at the low-income population (among them, those of microcredit). A similar result was found by Copetti (2015), when researching the accessibility of information on microcredit policy among the low-income population. On the other hand, among the interviewees, there was knowledge about the main elements of microcredit. However, regarding the incentives, only Interviewee 3 identified their existence and, when pointing them out, he highlighted more incentives focused on providing credit to microentrepreneurs than on providing microcredit itself.

Yunus (2008), when developing the microcredit methodology, argued that under no circumstances should the character of these loans be philanthropic. For the methodology to be effective, the institutions should become sustainable and, therefore, they should be strict about

compliance and interest rates. In this sense, it is necessary to analyze how the Sicoob Credivale cooperative understands microcredit.

The view that Sicoob Credivale's directors have of microcredit is that it is a credit product that can generate returns and business leverage for the cooperative while it also can promote social justice by allowing small entrepreneurs to have access to credit. As for the PNMPO (SAMPAIO, 2016), there is an understanding that it is a model better suited for government oversight, because, first, the cooperative has no obligation to offer microcredit, and, second, there are possibilities to provide microcredit in alternative ways to the PNMPO model.

In relation to the models adopted by PNMPO and MPO, the cooperative has some criticism about the limitation of the maximum amount to be loaned and about the rates adopted:

[...] is that the limit of 15 thousand reais ... we understand that, sometimes, it no longer meets the micro-entrepreneur's demands that are already more advanced. Sometimes, he is framed as a micro, but his demand is more than 15 thousand reais, which is the limit within microcredit. Many times, he has a demand of 20 thousand, 30 thousand and has potential for this (INTERVIEWEE 3).

I understand that the maximum rate that the program suggests, in many cases, becomes unfeasible for the micro entrepreneur, especially when we talk about investment (INTERVIEWEE 3).

The first criticisms presented by directors are in line with the latest change in the microcredit regulation in Brazil. With Pronampe, the billing limits for classification as micro-entrepreneur and microenterprise were equalized (360 thousand reais of gross revenue per year). Meanwhile, the credit limit to be provided in the Sicoob Microcredit modality remained at up to 15 thousand reais (with the possibility of reaching 20 thousand reais).

Regarding the second criticism, it is understood that the amount in the MPO would be appropriate only for working capital loans, since the sales of goods or services would maximize the amounts received, making it possible to pay off the credit and acquire profit. Currently, the maximum interest rate provided in the MPO is four percent per month, which is higher than the highest interest rate for car loans and the average rate of financing for machinery and equipment.

This high interest rate of the MPO was even indicted by the Federal Government, which, aiming to facilitate access to credit for first-tier microentrepreneurs (annual revenues of up to 120 thousand reais), developed the Crescer Program, whose main changes in relation to the PNMPO were the reduction of the annual interest rate to 8% per year and the TAC rate to 1% (SANTOS et al., 2019).

The effectiveness of the guidance provided to borrowers was another criticism made to the PNMPO and to part of the institutions that work with microcredit. Interviewee 3 highlights that "you need to have an adequate policy [...] and you need to have guidance" and to provide oriented credit you "need to have structure". In Interviewee 3's view, simply adhering to the model outlined by the PNMPO does not effectively guarantee guidance for borrowers. He also mentions that many institutions adhere to the program, but do not offer the necessary structure and appropriate follow-up (however, praise is given to the work of the Caixa Econômica and Banco do Nordeste).

The guidance in microcredit programs usually revolves around the credit agent, who is the professional with the most direct contact with the borrowers. He/she is responsible for monitoring and diagnosing the borrower's needs, based on a tripod: financial education, training, and technical assistance. However, in a study conducted by Matos and Texeira (2018), from the statements of microcredit program managers involved in the research, it was

found that the guidance provided by the credit agent would be in practice mostly 'psychological work' aimed at building a relationship of trust with the microcredit customer, and not an effective guidance for business.

By identifying that the microcredit line had limitations that prevented it from adequately serving microentrepreneurs, the option to use alternative lines of credit to meet the demand for microcredit proved to be a natural path for the cooperative.

Sicoob Credivale has used working capital and personal credit lines to serve formal and informal micro-entrepreneurs, respectively. Furthermore, there are specific lines for investments, which usually cost less for the cooperative member than the microcredit line would.

In a study by Zancanella (2008), analyzing the implementation of the PNMPO in Minas Gerais, it was found that 60% of the loans were directed to working capital. It turns out that Sicoob Credivale, by having access to the guarantee funds (which guarantee 80% of the business), could work with very attractive rates in working capital credit, which made it interesting for microentrepreneurs (INTERVIEWEE 2). Thus, there is a tendency for microcredit lines to be substituted by improved internal lines of credit.

Despite the widespread use of credit lines with no specific destination to meet the demands of micro-entrepreneurs, it can be seen that there is an understanding in management that it is important to have credit services aimed at microentrepreneurs. However, there is a preference for developing an internal line of credit rather than joining the MPO.

Furthermore, the cooperative shows interest in forming partnerships with other institutions so it can provide more adequate credit and guidance to the microentrepreneurs, as can be seen in what was said by Interviewee 3:

I have been in a meeting with SEBRAE to have a service for MEI (microentrepreneurs), to have a specific product for MEI, as well as for the self-employed in general. We are going to take action. We are in tune with SEBRAE. [...] SEBRAE provides training, we provide credit, we also provide support and training for these people so that we can structure a more targeted portfolio, that we can structure agendas with people who are organized through the MEI.

According to what has been exposed above, it can be seen that the views on microcredit, default, and operational and financial difficulty arising from the microcredit line were not responsible for the product not being provided. The profile of the cooperative, the credit users, and low dissemination were identified as elements that could negatively influence the implementation of the line. However, it is noted that the main reason that led the cooperative to not provide a specific line microcredit was the inability of this line to serve members more efficiently than the cooperative's internal lines. The freedom to develop internal lines allows the cooperative to meet the demands of its members without necessarily having to join externally developed programs or lines, making microcredit line unnecessary.

6. ANALYSIS OF MEMBER SATISFACTION AND INTEREST IN THE COOPERATIVE'S MICROCREDIT SERVICES

In the quantitative stage, a survey was used with analysis by means of descriptive statistics and Pearson's correlation test. Thus, data collection happened through the application of a survey questionnaire with 16 closed questions. Of the 16, 4 sought to characterize the respondent, 10 of them detected the respondent's interest in the microcredit service, and 2 analyzed the member's satisfaction with the Cooperative's services and follow-up.

Regarding the municipality of residence, it was identified that 40% of the respondents were from Teófilo Otoni, 11% from Poté, 10% from Malacacheta, 10% from Itaipé, 13% did not answer, and the remaining 16% are from 5 other municipalities (Araçuaí, Bandeira,

Jordânia, Felisburgo, and Santo Antônio). Of the total, 53% of the respondents live in urban areas, while 47% live in rural areas.

It was found that the average age of the respondents is 43.5 years old, and the most recurrent age groups were 40 to 49 years old (30%), 50 to 59 years old (25.5%), and 30 to 39 years old (22.2%). It is noteworthy that only 1% of the respondents were younger than 20 years old. Among the respondents, 45% identified as female, while 55% identified as male.

When analyzing the respondents' schooling, we found that 58.6% have basic education, 25.8% have a high school education; 8.6% of the participants declared they had never studied, although they could read and write; 1.7% of the participants declared they had attended college; and 5.3% did not answer this question.

The second group of questions aimed to determine the possible interest of the members in using the microcredit service. In this scope, it was observed that 67% of the respondents do not have a company or business; 30% have a business or company, with 21% having it as their main activity, and 9% as a secondary activity. Still, 3% of the participants did not know or did not want to answer this questionnaire.

Given this result, we chose to analyze whether there would be, within the niche of the cooperative members who own a business or company, the interest in accessing a specific microcredit line. In this sense, the graphs, information, and tables that will be presented in the quantitative stage were prepared based on data collected from the groups that would be able to answer each question.

Table 2 – Data on the company or business

Data on the company or business					
Sector		Monthly Revenue		Legal Status	
Group	%	Values in R\$	%	Group	%
Service provider	35%	1,000.00 to 4,999.99.	30%	Individual microentrepreneur	35,2%
Retail	30%	10,000.00 to 14,999.99.	17%	Formal	29,7%
Crafts	11%	5,000.00 to 9,999.99	11%	Informal	16,2%
Commercial agriculturer	5%	Less than 1,000.00	8%	Formalizing	8,1%
Subsistence agriculture	3%	Less than 16,666.66	5%	No answer	10,8%
Others	8%	15,000.00 to 16,666.66	2%		
No answer	8%	No answer	27%		

Source: elaborated by the authors

In relation to the segments of activity, most of the respondents declared to have their activities linked to service sector (35%), retail sector (30%), handicrafts (11%), others (8%), commercial agriculture (5%), and finally subsistence agriculture (3%). The results were favorable to the implementation of a microcredit line since the commerce and service sectors are those that receive almost all the microcredit resources. In this sense, *Banco do Nordeste* (2019) provided, in 2018, 88% of its microcredit resources for borrowers in retail and 11% for borrowers who were in the service sector.

As for the legal status, the most common among the cooperative members was that of Individual Microentrepreneur (MEI) (35.2% of the respondents). In second place, 29.7% of the businesses were formalized, followed by the situations of informality: informal (16.2%) and in formalization (8.1%). Microcredit is usually a very attractive line for informal borrowers, because it does not require the borrower to have a CNPJ (business registration), thus the high rate of formalized respondents could imply a lower interest in the line. On the other hand, the large number of individual microentrepreneurs shows the presence of borrowers in need of credit within the limits imposed by the line.

Nevertheless, it was found that the monthly income range that appeared the most was from R\$1,000.00 to R\$4,999.99, with 29% of the total members of this group. The second

income range was from R\$10,000.00 to R\$14,999.99 (16% of the cooperative members). The following groups were R\$ 5,000.00 to R\$ 9,999.99 (10% of the cooperative members), less than R\$ 1,000.00 (8% of the cooperative members), more than R\$ 16,666.66 (5%) and from R\$ 15,000.00 to R\$ 16,666.66 (2%); 10.8% of the cooperative members didn't want to or couldn't answer. Thus, once again, a scenario favorable to the implementation of a microcredit line was identified, since the group that declared higher income represented only 5% of the participants.

The next data to be analyzed was the need to contract loans for the maintenance of the company or business. The participants were asked about the recurrence of contracting loans, the amount taken out, and the destination given to these amounts, as can be seen in Table 3:

Tabel 3 – Loans

Loans					
Loan Take-out recurrence	Percentual de Cooperados	Amount (R\$)	% of contracts	Destination	% of ntracts
None	40.5%	Less than 3000.00	5%	Working capital	39%
Once	13.5%	3,000.00 to 4,999.99	22%	Shop improvment	5%
Two to three times	21.6%	5,000.00 to 20,000.00	45%	Machines, equipment and vehicles	23%
Four to five times	5.4%	More than 20,000.00	5%	Purchase of goods and consumption	5%
More than five times	8.1%	Uninformed amount	23%	Others	5%
No answer	10.9%			No information	23%

Source: Elaborated by the author

Table 3 shows that 40.5% of the respondents did not need to take out loans to maintain their businesses, this being the most recurrent response. Among those who did contract loans, the highest recurrence was among those who got them two to three times (21.6%). Next are single uses (13.5%), more than five loans (8.1%), and four to five loans (5.4%).

In relation to the amounts taken out, it can be observed that 72% of the loans were for amounts up to R\$20,000.00, with the greatest recurrence being those between R\$5,000.00 and R\$20,000.00 (45%). Again, only 5% of the participants dealt with higher values (in this case, loans higher than R\$20,000.00). 23% of the participants did not know or did not want to answer, but given the information obtained in the previous steps, it is unlikely that they would have different results from those presented by the other respondents.

Regarding the destination of the credit, Table 3 shows that 39% of the loans were used for working capital, followed by the purchase of machinery, equipment, and vehicles at 23%. The other destinations mentioned had a recurrence of 5% each. This data is in line with the results of the qualitative stage, since the interviewees pointed out working capital as the most recurrent. It is worth mentioning that there was no analysis in terms of the quantity of loans per membership time in the cooperative. The objective was to illustrate the cooperative members' need for credit. The microcredit lines are characterized by the provisiono f productive credit, therefore, the destination of the amounts contracted must be related to the development or continuation of the company.

In this sense, one can see that, of the destinations mentioned, working capital (39%), the purchase of machinery, equipment, and vehicles (23%), and improvement of the store/shop (5%) would fit perfectly with the limitations imposed on the supply of microcredit.

As a last phase of this stage, the need and interest of the cooperative members for guidance in investments was evaluated. The respondents were questioned what their evaluation would be regarding the visiting their businesses and guidance by Sicoob Credivale's employees. As a result, it was observed that 84% of the cooperative members

considered it a good thing, because it could help their financial planning. Only 5% of the cooperative members considered that the visit and the orientation would be an invasion of their privacy and 11% did not answer the question.

Thus, when analyzing the niche of the cooperative members that could use the productive credit line, we can identify that there is a high interest for the implementation of oriented credit (75% to 93%). The segments the members work in are consistent with what the microcredit line works with (72% to 90%). The legal status of the most recurrent business was the MEI (which is consistent with the profile of microcredit users). The revenue of the companies and the values of loans were within the limits allowed by the microcredit line, as well as the destination of these loans.

However, it is very relevant that the number of cooperative members who had already taken out loans for the maintenance of their activities was approximately half of the business and company owners. Nevertheless, the number of those who took out loans recurrently is even smaller. With this, it can be seen that within the cooperative there is a niche of members that would be interested in contracting amounts from a microcredit line, however, the number of members that would contract recurrently would be small.

To better understand the interest for the microcredit line among the cooperative members, their satisfaction with the services provided by the cooperative Sicoob Credivale was evaluated, in order to identify a possible dissatisfaction with the existing credit lines, as well as to enable the identification of a correlation between the interest for elements present in the microcredit lines with the satisfaction index of the cooperative members. To this end, a scale of 1 to 5 was established in which the member would mark the number that was consistent with each element present in the services provided by the cooperative.

The first point analyzed was customer service. The evaluation of the service is relevant to the scope of this work because microcredit is a line aimed at the low-income population, which generally has low education. Thus, the possible dissatisfaction with the language used by employees, clarity of information, and easy customer service are elements that would highlight the need for more specialized services for this group (such as the use of a credit agent).

Among the elements put under evaluation: 'easy customer service' received an average score of 4.41 out of 5, 'understandable language' received 4.38, and 'clarity of information' received 4.37.

Next, the satisfaction with the credit services provided by the cooperative was analyzed. In this stage we evaluated the satisfaction with: the capacity of the existing loan models to meet the needs of the cooperative members, the ease of the collateral required, the amounts available for loans, the payment period of the loans, the grace period, and the interest rates charged.

Again, the clients were greatly satisfied with the services provided by the Cooperative. For the capacity of the available credit lines to meet demands, the average score was 4.25. For the required collateral, the score was 4.15. For the capacity of the available amounts to meet the needs of the members, the score was 4.35. In relation to the payment deadline, the score was 4.10. For the grace period, the score was 4.07. Finally, the interest rate charged presented a score of 4.

As a last criterion to be evaluated, the satisfaction with the support provided by Sicoob Credivale was evaluated based on four elements: the availability of courses to improve the cooperative members' business; lectures with contents that please the members; visits by employees to the members' establishment; and meetings between entrepreneurs.

A strong decrease in the rating is observed when the support criterion is evaluated. The score given to the availability of courses to improve members' businesses was 2.23; the realization of lectures with interesting contents was 2.25; the visits to the cooperative

member's establishment was 2.24; and the promotion of meetings between entrepreneurs was 2.21. Since the elements were directly linked to the cooperative's follow-up with the activities linked to a business or enterprise, a drop in the scores in this last evaluation stage was expected.

Furthermore, an analysis was made of the scores given only by the group of cooperative members who declared to have a company or business. Regarding the evaluation of the customer service and credit services, no considerable differences were found. However, when analyzing the satisfaction with the follow-up, different results were noticed: for the element of courses available for business improvement, the index went up to 3.2; for the lectures with interesting content, the result was 3.36; the visit of cooperative employees to the member's business was the one which had the best assessment, at 3.42; and, finally, the promotion of meetings between entrepreneurs got 3.36.

Furthermore, it was possible for the respondents to perform a qualitative evaluation of satisfaction with the credit services, in which they could declare the credit service as 'excellent', 'good', 'regular', 'bad' and 'terrible'. The majority of the members considered the service good (54%). Next, 31% considered the service as excellent, and 9% of the members considered the service as regular. However, it is important to note that 6% of the members did not answer the question.

For the last step, the answers of each cooperative member to questions related to the variables "interest in the microcredit service" and "satisfaction with the services of the cooperative" were scored. Each answer expressing interest in a peculiarity of microcredit was assigned a score of 'one' and at the end the points were added up. For the group of cooperative members who declared they did not own a company or business, zero points were assigned for interest in the microcredit service. The satisfaction was calculated with the average of the scores attributed by each member to the cooperative's services.

The scores found were submitted to a correlation test in order to show if there would be an increase in the satisfaction of the cooperative members with the implementation of the microcredit line. The correlation evaluates the possibility of association between two variables based on the sharing of variance. In this way, to find the aforementioned result, a negative correlation was assumed, in which the increase in interest for microcredit services would imply a lower satisfaction with the current services of the cooperative. Table 4 shows the results:

Table 4 – Correlation between Interest in Microcredit and Satisfaction with Credit Services

	General Interest in Microcredit	General Satisfaction Sum
General Interest in Microcredit	1	.419**
Spearman's rho	113	113
General Satisfaction Sum	.419**	1
	0.	
	113	113

**Correlation is significant to the level 0.01 (bicaudal).

Considering the entire population (113 responses), it can be seen that there is a significant ($p < 0.01$) positive and moderate correlation ($r = 0.419$) between interest in microcredit and satisfaction with the current program offered by the organization. Thus, the results presented in Table 4 contradict the hypothesis initially proposed.

Since Table 4 showed a positive relationship between the variables "interest in microcredit services" and "satisfaction with the cooperative's services", it can be seen that the greater the interest in the characteristics of a microcredit line, the greater the satisfaction of the cooperative member with the existing services at Sicoob Credivale.

The result can be explained by the data found in the qualitative stage, because, as had been explained by the interviewees, the cooperative serves the members who could have a demand for microcredit through its conventional and internal lines. Since these lines offer more efficient service in meeting the members' demands (especially the affordability of interest rates), satisfaction with the existing credit services in the cooperative increased.

7. FINAL CONSIDERATIONS

As seen in this paper, Sicoob Credivale understands that microcredit is an attractive line that can promote justice, since it allows microentrepreneurs access to credit needed to continue their productive activities. Furthermore, it was noticed that there is an understanding that the low-income public has a high degree of compliance.

On the other hand, it was found that, despite the existence of financial and operational viability of the microcredit line, the values and methodology developed by the PNMPO line could not be more attractive to the cooperative members than the already existing lines within the cooperative, so its implementation was unfeasible due to inefficiently meeting the needs of this public.

In the quantitative stage, when performing the correlation test between the variables "interest in microcredit" and "satisfaction with existing credit services", a positive correlation was identified, indicating that the cooperative members who showed greater interest in the peculiarities of the line were those who were more satisfied with the services of the cooperative. Thus, it can be seen that Sicoob Credivale's option to improve conventional lines and develop its own lines, rather than implementing microcredit, had a positive impact on the satisfaction of the members.

For all these reasons, it is important to emphasize the relevance of knowing the local reality to develop products that are more adequate to the needs and possibilities of the borrowers, while maintaining the viability of the financial institutions. The Brazilian model, by taking the opposite path in dealing with different realities, tends not to be efficient in what it proposes: a credit line capable of achieving the democratization of credit.

As for the limitations of the research, it is highlighted that it was carried out during the pandemic (COVID-19), which made data collection extra difficult, forcing the researchers to work with a margin of error of 9%. Another limitation relates to the educational level of the cooperative members, who may have had difficulty identifying that their activities could be framed as a business or enterprise. As suggestions for further research, we propose the realization of a case study in multiple credit unions, aiming at identifying the demand for microcredit among members from different regions.

ACKNOWLEDGMENT

The authors would like to thank the Federal University of Jequitinhonha and Mucuri Valleys for the necessary financial support given to this research.

REFERENCES

- ASSIS, E. C. D.; LOPES, A. L. M. A intercooperação nas cooperativas de crédito da região do Vale do Aço: discurso ou efetividade? **Revista de Gestão e Organizações Cooperativas**, v. 7, p. 31- 47, 2020.
- BANCO DO NORDESTE DO BRASIL. **Programa de Microfinanças do Banco do Nordeste**. Relatório Técnico. Brasil. 2019
- BARONE, F. M.; LIMA, P. F.; REZENDE, V. **Introdução ao Microcrédito**. Brasília: Conselho da Comunidade Solidária, 2002.

COPETTI, S. L. L. **A divulgação da política de microcrédito: é acessível à população de baixa renda?**. 2015. Disponível em: <<https://lume.ufrgs.br/handle/10183/131540>>. Acesso em: 2 jan. 2021.

FORGIARINI, D. I.; ALVES, C. N.; MENDINA, H. J. C. Aspectos teóricos do cooperativismo e suas implicações para a gestão de cooperativas. **Revista de Gestão e Organizações cooperativas**, v. 7, n. 4, p. 21–36, 2018.

GUERRA JUNIOR, A. G.; SILVA, L. B. As cooperativas de crédito mútuo no Brasil. **Pensamento & Realidade**, v. 27, n. 3, p.74-91. 2012.

JACQUES, E. R.; GONÇALVES, F. DE O. Cooperativas de crédito no Brasil: evolução e impacto sobre a renda dos municípios brasileiros. **Economia e Sociedade**, v. 25, n. 2, p. 489-509, 2016.

MATOS, F. DE; TEIXEIRA, T. R. O agente de crédito como elemento-chave da política de microcrédito: a importância da orientação para a sustentabilidade dos empreendimentos financiados. **NAU Social**, v. 9, n. 17, 2018.

MELO, T. G. DE; SCOPINHO, R. A. Participação em cooperativas de assentamentos rurais: estudo sobre os sentidos do trabalho. **Psicologia em Estudo**, v. 20, n. 4, p. 529–541, 2015.

MENDONÇA, K. V.; SOARES, R. B. Trajetória de crescimento para microempreendedores: diferencial de gênero dos clientes do programa crediamigo. **Estudos Econômicos**. v. 46, n. 3, p. 701 - 731, 2016.

NERI, M. **Microcrédito: O Mistério Nordeste e o Grameen Brasileiro**. Rio de Janeiro: Editora FGV, 2008.

OCB - ORGANIZAÇÃO DAS COOPERATIVAS DO BRASIL. **Ramos do Cooperativismo**. Organização das Cooperativas Brasileiras. Brasília, 2019.

PEREIRA, J. A.; SOUZA, L. H. DE. Empreendedorismo e microcrédito produtivo orientado: um estudo sobre o Programa Crescer. **Gestão & Planejamento - G&P**, v. 18, 2017.

PRODANOV, C. C.; FREITAS, E. C. DE. **Metodologia do Trabalho Científico: Métodos e Técnicas da Pesquisa e do Trabalho Acadêmico**. 2. ed. Novo Hamburgo: Feevale, 2013.

SAMPAIO, P. S. O Microcrédito Produtivo Orientado no Brasil: um Panorama da Evolução do Quadro Regulatório, dos Atores Institucionais e de seu Efeito na Superação da Pobreza. **Journal of Law and Regulation**, v. 2, n. 2, p. 47–104, 2016.

SANTOS, A. L. C. et al. Effects of regulatory changes in microcredit on the financial and social performance of Brazilian credit unions. **Revista Contabilidade & Finanças**, v. 30, n. 81, p. 338–351, 2019.

SCHNEIDER, J. O. A Doutrina do Cooperativismo: Análise do Alcance, do Sentido e da Atualidade dos seus Valores, Princípios e Normas nos Tempos Atuais. **Cadernos Gestão Social**, v. 3, n. 2, p. 251-273–273, 2012.

SINGER, P. **Introdução à economia solidária**. São Paulo: Editora Fundação Perseu Abramo, 2013.

VERGARA, S. C. **Projetos e relatórios de pesquisa em administração**. 14. ed. São Paulo: Atlas, 2013.

YUNUS, M. **O banqueiro dos pobres**. São Paulo: Ática, 2008.