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The relationship between rural credit and member loyalty in a credit cooperative in the municipality of Rondinha, RS, Southern Brazil

La relación entre el crédito rural y la lealtad de los miembros de una cooperativa de crédito en el municipio Rondinha, RS, Sur de Brasil

A relação do crédito rural com a fidelidade dos cooperados de uma cooperativa de crédito do município de Rondinha, RS

Authors

Tiago Cazzaroto

Graduate in Business Administration, Universidade de Passo Fundo - UPF. Address: BR 285 Km 292,7, Bairro São José - São José, Passo Fundo - RS, 99052-900. Brazil. Identifiers (ID):

Orcid: <https://orcid.org/0009-0005-2863-2864>

E-mail: tiagocazzaroto@gmail.com

Tadeu Grando

PhD in Accounting Sciences, Universidade do Vale do Rio dos Sinos – Unisinos. Professor at the Universidade de Passo Fundo – UPF. Address: BR 285 - Km 292, Passo Fundo, RS. Brazil. Telephone: +55 549 916 317 44. Identifiers (ID):

Orcid: <https://orcid.org/0000-0002-1004-4037>

Lattes: <http://lattes.cnpq.br/4862442138387866>

E-mail: mtadeugrando@bol.com.br

Débora Gomes de Gomes

PhD in Accounting Sciences and Administration, Universidade Regional de Blumenau – FURB. Professor at Universidade Federal do Rio Grande – FURG. Address: Av. Itália, km 8, bairro Carreiros, Rio Grande, RS, Brazil. ZIP code: 96203-900. Telephone: +55 533 293 508 1. Identifiers (ID):

Orcid: <https://orcid.org/0000-0002-7955-0958>

Lattes: <http://lattes.cnpq.br/3885093662069571>

E-mail: debora_furg@yahoo.com.br

Suelen Corrêa

Master in Administration, Faculdade Meridional – IMED. Address: BR 285 - Km 292, Passo Fundo, RS. Brazil. Telephone: +55 549 811 668 68. Identifiers (ID):

Orcid: <https://orcid.org/0000-0003-1175-6957>

Lattes: <http://lattes.cnpq.br/2699535680870473>

ID Lattes: <http://lattes.cnpq.br/2699535680870473>

E-mail: sucorrea83@hotmail.com

Abstract

Objective: The study aims to verify the relationship between rural credit and member loyalty in a credit cooperative in Rondinha, RS, Southern Brazil.

Methodology: The research was characterized as exploratory. 44 family farmers from the municipality of Rondinha, RS, Southern Brazil, who are members of a credit cooperative and took out rural credit in the 2020/2021, and 2021/2022 harvests participated in the research. The analysis was based on the Swedish model of loyalty analysis, which was originally developed for industry and later used in credit cooperatives.

Results: The results indicate that rural credit made available by the researched cooperative influences the loyalty of producers. The main reason for contracting rural credit was to finance planting. The biggest benefit of this type of credit is the security and viability of production. Rural credit makes members hire other services from the institution, such as insurance, capitalization bonds, and investments, bringing the relationship between cooperative members and cooperatives even closer.

Study contributions: The research demonstrates that rural credit is a strategy for attracting, retaining, and strengthening relationships with cooperative members, because rural credit positively influences all these areas. Furthermore, the study demonstrates that rural credit can be used by institutions as a powerful relationship tool ensuring customer loyalty, launching a new strategic outlook regarding the importance of rural credit as a differentiator in relationships with customers/associates, increasing the competitiveness of the cooperative or financial institution.

Keywords: Loyalty; Rural credit; Credit cooperatives.

Resumen

Objetivo: El estudio tiene como objetivo verificar la relación entre el crédito rural y la lealtad de los miembros de una cooperativa de crédito en el municipio de Rondinha, RS.

Metodología: La investigación se caracterizó por ser exploratoria. Participaron de la investigación 44 agricultores familiares de la ciudad de Rondinha, RS, socios de una cooperativa de crédito y que contrataron crédito rural en las cosechas 2020/2021, 2021/2022. El análisis se basó en el modelo sueco de análisis de fidelidad, desarrollado originalmente para la industria y luego utilizado en cooperativas de crédito.

Resultados: Los resultados indican que: el crédito rural puesto a disposición por la cooperativa investigada influye en la lealtad de los productores; el principal motivo para contratar crédito rural fue financiar la siembra y el mayor beneficio de este tipo de crédito es la seguridad y viabilidad de la producción; El crédito rural se encarga de que los socios contraten otro tipo de servicios de la

institution, como seguros, bonos de capitalización e inversiones con la cooperativa, acercando cada vez más la relación entre cooperativistas y cooperativas.

Contribuciones del estudio: La investigación contribuye demostrando que el crédito rural es una estrategia para atraer, retener y fortalecer las relaciones con los afiliados, pues como se demuestra en los resultados, el crédito rural influye positivamente en todos estos ámbitos. Además, el estudio demuestra que el crédito rural puede ser utilizado por las instituciones como una poderosa herramienta de relación garantizando la fidelidad y fidelidad de los clientes, lanzando una nueva forma estratégica de ver la importancia del crédito rural como diferenciador en las relaciones con clientes/asociados, aumentando la competitividad. de la cooperativa o institución financiera.

Palabras clave: Fidelidad; Crédito rural; Las cooperativas de crédito.

Resumo

Objetivo: Este estudo tem por objetivo verificar qual é a relação do crédito rural com a fidelidade dos cooperados de uma cooperativa de crédito do município de Rondinha, RS.

Metodologia: A pesquisa caracterizou-se como exploratória. Participaram da pesquisa 44 agricultores familiares do município de Rondinha, RS, que são associados a uma cooperativa de crédito e que tomaram crédito rural nas safras 2020/2021, 2021/2022. A análise foi baseada no Modelo Sueco de análise da fidelidade, originalmente desenvolvido para a indústria, e, posteriormente utilizado em cooperativas de crédito.

Resultados: Os resultados indicam que: o crédito rural disponibilizado pela cooperativa investigada influencia na fidelidade dos produtores; o principal motivo para contratação do crédito rural foi o financiamento do plantio; o maior benefício desse tipo de crédito é a segurança e a viabilização da produção; o crédito rural é responsável por fazer os associados contratarem outros tipos de serviços da instituição tais como seguros, títulos de capitalização e investimentos, ampliando ainda mais a relação entre cooperado e cooperativa.

Contribuições do estudo: O estudo contribui demonstrando que o crédito rural é uma estratégia de captação, retenção e fortalecimento na relação com os associados, pois como demonstrado nos resultados, o crédito rural influencia positivamente em todos esses âmbitos. Além disso, o estudo demonstra que o crédito rural pode ser usado pelas instituições como uma ferramenta poderosa de relacionamento, garantindo a lealdade e fidelidade do cliente, lançando uma nova forma estratégica de olhar a importância do crédito rural como diferencial no relacionamento com clientes/associados, aumentando a competitividade da cooperativa ou instituição financeira.

Palavras-chave: Fidelidade; Crédito rural; Cooperativas de crédito.

1 Introduction

Rural credit was established in Brazil in 1965. Its goal was stimulating investments in rural areas, especially for storage, processing, and industrialization of agricultural products; to “favor the timely and adequate costing of production and marketing of agricultural products”; strengthen family

farming, and provide a sustainable vision to producers so they can increase their productivity and quality of life without causing environmental impacts (Brasil, 2004, p. 11).

Since its institution rural credit has developed to support agricultural production, especially addressing modern agriculture techniques (Rego & Wright, 2019). Rural credit has become an instrument linked to agricultural policy, to enable the payment of minimum prices and provide rural extension services (Rego & Wright, 2019).

Among the financial institutions that offer rural credit, we highlight public and private banks, credit cooperatives, as well as other institutions that make up the Brazilian National Rural Credit System. However, it is credit cooperatives that mediate a significant share of rural credit interactions and are important channels for farmers to acquire rural credit, mainly in southern Brazil (Costa et al., 2019).

However, as several financial institutions offer rural credit, they compete with credit cooperatives for the attention and loyalty of rural producers (Costa et al., 2019). In this study, based on Serigati, Azevedo, and Arelano (2008), loyalty in the relationship with the credit cooperative is understood as the commitment of a member in their relationship with the cooperative. This concept is relevant as the loyalty of cooperative members, according to Maffini, Wakulicz, and Alberti (2020), is essential for maintaining the economic and social health of cooperatives.

The research by Maffini, Wakulicz, and Alberti (2020), based on the model by Johnson et al. (2001), demonstrated that loyalty is related to customer satisfaction, and consists of a relationship between customer expectations versus product performance, resulting in either satisfaction or dissatisfaction. However, even if the customer is dissatisfied, it is possible to transform it into loyalty through positive-resulting negotiation. Therefore, it is also clear that loyalty is different for farmers due to the size of their property, farming area, and the possibility of financial transactions (Maffini, Wakulicz & Alberti, 2020).

In this scenario, this study aims to answer the following research question: **What is the relationship between rural credit and the loyalty of members of a credit cooperative in the municipality of Rondinha, RS, southern Brazil?** This study verifies the relationship between rural credit and the loyalty of members of a credit cooperative in the municipality of Rondinha. The credit cooperative analyzed in the study is the first cooperative financial institution in Brazil. It originated more than 120 years ago, currently empowers 8 million people to become owners of their own businesses, and is structured in more than 100 branches spread throughout the federative units of Brazil. It offers more than 300 products and services. The cooperative agency investigated in this study has a total of 3.000 members.

The research is justified according to the indications of Maffini, Wakulicz, and Alberti (2020) on the need to highlight how loyalty impacts a cooperative and its variables in a given region. Costa Rego and Wright (2019), and Costa et al. (2019) highlight the need to understand the relationship between farmers and credit cooperatives to comprehend how rural credit influences agriculture. Furthermore, this study sheds light on customer loyalty and the relationship between cooperative members and cooperatives, a topic rarely explored in the literature, providing new insights. The study also contributes to the credit cooperatives themselves in clarifying how their members' loyalty develops through rural credit

2 Theoretical Framework

2.1 Rural Credit

Rural credit presents legal advances in Brazilian legislation, which are responsible for providing farmers with the necessary support for the development of rural areas in Brazil. The

Brazilian National Rural Credit System (SNCR) is made up of several bodies that are linked and articulated. Among them are the Central Bank of Brazil (Bacen), Banco do Brasil (BB), the Brazilian National Bank for Economic and Social Development (BNDES), private and state banks, rural credit cooperatives, and credit societies, among others (Brasil, 2004, p. 13). These bodies facilitate farmers' access to rural credit.

Costa et al. (2019) present the flow of rural credit between the source of the resource and the beneficiary when this route involves credit cooperatives, as shown in Figure 1.

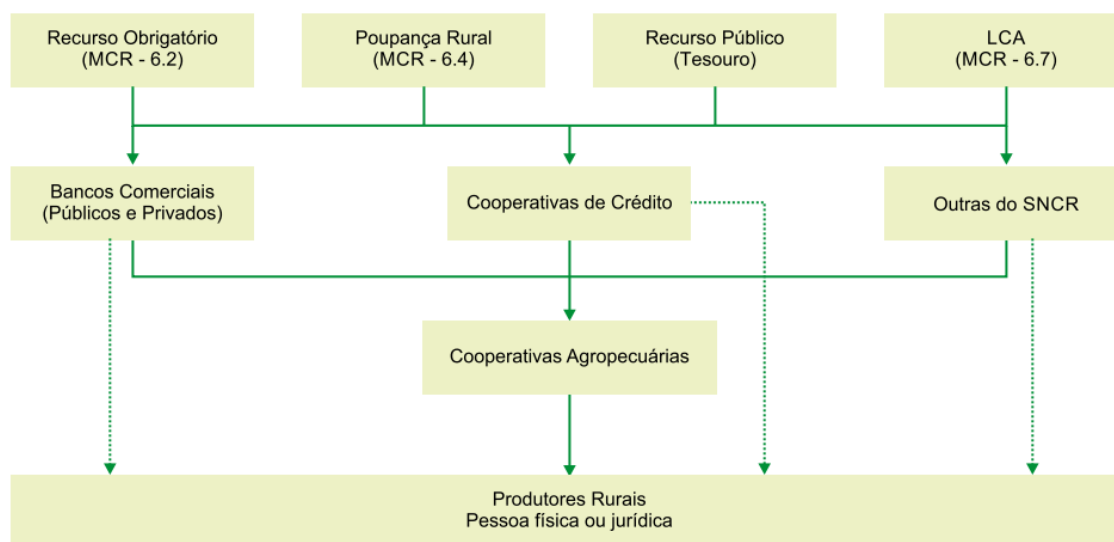


Figure 1 Flow of rural credit between the source of the resource and the beneficiary.

Source: Adapted from Costa et al. (2019, p. 85).

Figure 1 shows the current training format. Note that credit cooperatives can bring together different sources of public resources to provide their members with rural credit, which may or may not go through agricultural cooperatives.

According to Bacen (2018), in the 2016-2017 and 2017-2018 harvest years, it was imposed “that 34% of demand deposits in commercial and multiple banks, with a commercial portfolio, must be allocated to rural credit operations”. Furthermore, the financial institution that originates the resource must invest at least 20% of this total amount towards the operations of the Brazilian National Program for Strengthening Family Agriculture (PRONAF) and 15% towards the Brazilian National Support Program for Medium-Sized Rural Producers (PRONAMP) (Costa et al., 2019, p. 86).

This scenario changed with the covid-19 pandemic. The study by Elesbao and Deus (2021) shows that Sicredi Centro Leste, RS, Southern Brazil, assisted its members and, despite the instability and uncertainty caused by the pandemic, agribusiness continued to be strengthened due to rural credit, especially rural credit lines for small farmers.

2.2 Credit Cooperatives

A cooperative is a company and an economic entity simultaneously. From its formation, it has modified decision-making processes, making it a new economic entity that emerges when a cooperative association is formed, as the participants must agree to submit issues related to the activity to group decisions. (Robotka, 1947).

In some countries cooperatives, especially rural ones, are always supported by the government. This support may be necessary especially where there is a large rural population. On the

other hand, in countries where agricultural production for the market is well developed, government policies towards cooperative associations are reduced to protection and consultancy. (Emelianoff, 1948).

Brazil is no different, as cooperatives have tax benefits and some tax exemptions in their operation, specifically in their core activities. According to the Organization of Brazilian Cooperatives (OCB) (2022a), cooperativism is a business model that grants its members benefits aimed at economic and social development, productivity, and sustainability, both individually and collectively.

In the early 20th century the development of credit unions in the United States was aggressively and effectively promoted by private and government agencies, and endorsed by some religious, labor, and business groups. It enlisted the voluntary and enthusiastic support of thousands of men and women throughout the country. However, 40 years later, savings accumulated in credit unions were only a small fraction of the total deposits held in savings institutions, and the proportion of loans made by credit unions was only a small fraction of the national consumer business. (Croteau, 1949). This fact demonstrates the difficulty credit union leaders faced in attracting members and offering loans at low interest rates.

In Brazil, the first credit cooperative was founded in Nova Petrópolis, RS, Southern Brazil, by Theodor Amstad in 1902. It allowed for the economic development and financial inclusion of hundreds of other Brazilian municipalities (OCB, 2022). In particular, credit cooperatives became a major promoter of rural credit and provided farmers with the possibility of financing their production, mainly for small farmers (Maffini, Wakulicz & Alberti, 2020).

In the 60s, Croteau (1963) highlighted that credit cooperatives cannot escape their purpose. They are considered the purest form of all cooperatives, as they deal exclusively with their members, and must be managed, owned, and used by them. Not only are business transactions restricted to members, but restrictions are also imposed on the association itself, requiring members to form a relationship bond. According to the author, this bond motivates the success of these organizations, as the social pressure created by members who know each other reduces the risk of default, for instance, which is a high risk for this type of organization.

A credit cooperative is a very unique social institution. Among its characteristics, it can be listed: (i) it represents a financial intermediary, as it is owned and operated by members voluntarily without remuneration; (ii) members are providers and users of loanable funds; (iii) are subsidiary in nature, as they are non-profit organizations, but exist to achieve the economic and social objectives of their members; (iv) establish several important relationships, such as the economic relationship between the cooperative and its members, on the one hand, and the relationship between the cooperative and the market, on the other, among others. (Taylor, 1971). According to the author, most cooperatives in the United States represent producer organizations, such as farmers who market or purchase their agricultural products through them, or consumer organizations that use the cooperative to purchase goods collectively.

Smith, Cargil, and Meyer (1981) highlight that the fact that a credit cooperative performs financial intermediation between its saving members and borrowing members generates conflict between members, as it cannot simultaneously maximize its dividend rate for savers and minimize its loan rate for borrowers.

As such, Smith (1984) emphasizes that the unique motivational and institutional characteristics of a credit cooperative, in particular its structure as a financial services cooperative, are used to develop its goal. However, for the author, the resolution of conflicts between borrowers and savers depends on the organization's preference regarding financial gain for borrowers or savers.

For Rubin et al. (2013) a topic of interest in the retail financial sector has been the growth of credit cooperatives and the mathematical models of operations for these organizations, which are

traditionally static, but which identify significant operational characteristics. Given the previously mentioned conflicts, the authors developed a model that examines the dynamic operation of a credit cooperative in the United States that specifies capital retention and intertemporal deposit and loan rate policies until a state of equilibrium is reached. As such, model validations are relevant.

Currently, credit cooperatives, especially those located in the countryside, distant from large centers, enable farmers to acquire rural credit. According to Costa et al. (2019), credit cooperatives are fundamental to the development of family farming. Santos, Bressan, Moreira, and Lima (2020) indicate that, without the logistics made possible by credit cooperatives, the impact of the pandemic on agriculture would be significantly severe. Among the relationships mentioned, loyalty must be included in the cooperative relationship and its members. This is a significant and little-explored theme in cooperativism, which is discussed in-depth below.

2.3 Loyalty

Initially, loyalty was understood as a repeated purchasing pattern (Gonzales, 2005). Jacoby and Kyner (1973) believed that loyalty occurred when an individual made a non-random repurchase, within a certain period, of a specific brand among a set of other brands.

Later, Jacoby and Chestnut (1978) strengthened that loyalty is associated with the act of repurchase and can take different forms, as shown in Table 1.

Table 1

Forms of loyalty

Repeat purchase of a	Psychological loyalty for:			
	Specific brand	Multiple brands	Other brand	None
Specific brand	True loyalty	Loyalty to multiple brands	Loyalty-free repurchase	Opportunistic buyer
Other brand	Opportunistic buyer of another brand	Loyalty to multiple brands	Loyalty to another brand	Opportunistic buyer

Source: Adapted from Jacoby and Kyner (1973).

Based on the information presented by Jacoby and Kyner (1973) in Table 1, some attitudes refer to genuine loyalty to one or more brands, which occur due to affection, cognition, brand attitude, or even a belief, as some buyers are opportunistic.

Subsequently, Dick and Basu (1994) propose that loyalty is based on a psychological approach. As such, it understands the degree to which the consumer's evaluation of one brand is dominant over another. In other words, the authors propose that even if there are similarities between brands, a loyal individual is capable of tolerating certain adversities to acquire a specific brand. Figure 2 presents the theoretical model addressed by Dick and Basu (1994).

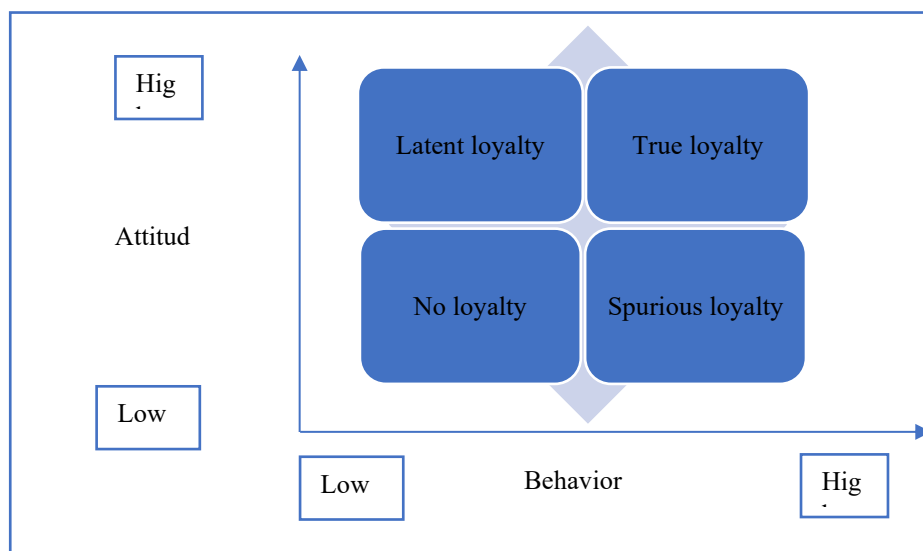


Figure 2 Structure of the Dick and Basu (1994) model.

Source: Adapted from Maffini, Wakulicz, and Alberti (2020, p. 9).

According to Maffini, Wakulicz, and Alberti (2020), Dick and Basu's (1994) model can be explained by a relationship between individuals' attitudes and behavior. For them, loyalty exists in four forms: (i) true loyalty, (ii) latent loyalty, (iii) no loyalty, and (iv) spurious loyalty.

In true loyalty, the consumer has a high attitude towards the brand and high repeat purchase behavior. In latent loyalty, the consumer has a strong preference for the brand but shows low repeat purchase behavior due to environmental or situational circumstances.

In spurious loyalty, the consumer often purchases a brand but does not consider the brand to have attributes that are significantly different from the others. Despite this, periodic repurchases may occur in situations where there is no choice or the choice is made based on past habits. And, finally, in no loyalty, consumers do not differentiate between brands and show low repurchase behavior.

Johnson et al. (2001) expanded the theoretical model of loyalty assessment and developed a national survey in Sweden, which proved to be valid and continues to be used as a basis for other studies, such as that by Maffini, Wakulicz, and Alberti (2020), and Ribeiro et al. (2020). The theoretical proposition is presented in Figure 3.

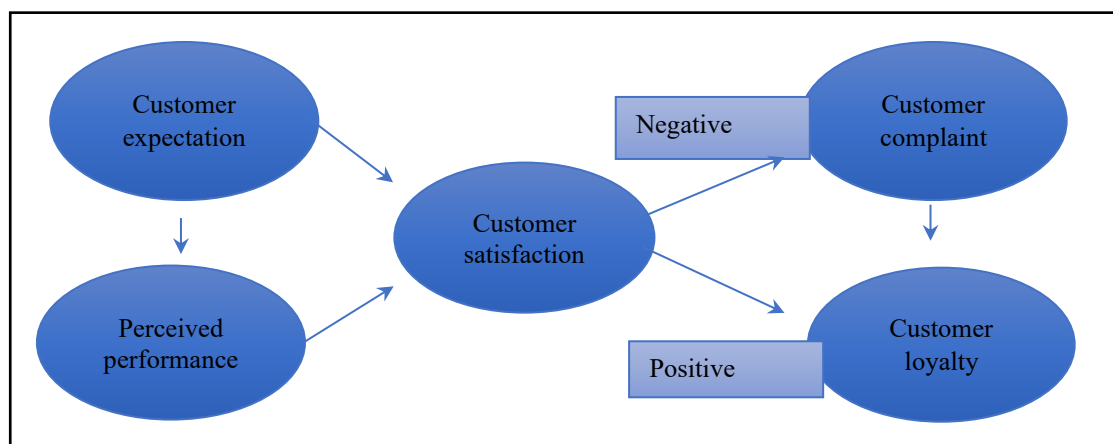


Figure 3 *Swedish loyalty assessment model.***Source:** *Adapted from Johnson et al. (2001).*

Johnson et al.'s (2001) theoretical model initially addresses customer expectations, which are created from previous consumption experiences. It involves elements related to the service dissemination format, available information about the company or brand, word-of-mouth communication, and the service's ability to achieve the expected quality (Gonzales, 2005; Maffini, Wakulicz & Alberti, 2020).

Next, perceived performance is observed, which reflects the perceived level of quality of the service, comparing it with expectations. At this point, the customer makes comparisons with brands or companies that offer similar benefits (Gonzales, 2005). In the case of this study by Gonzales (2005), this is the moment when farmers analyze the difference between the service and benefits they receive from each institution where they can acquire rural credit.

After purchasing products and services and comparing them with other similar organizations, farmers will present a level of satisfaction, which will be positive or negative. Positive satisfaction tends to build farmer loyalty, while negative satisfaction leads the farmer to complain to the organization, generating negative word-of-mouth. However, even if the farmer complains, it is still possible for him to be loyal, but this will depend on the cooperative's negotiation capacity (Maffini, Wakulicz & Alberti, 2020).

Finally, the theoretical model of loyalty assessment by Johnson et al. (2001) indicates that if the customer is satisfied, loyalty is possible even if they complain. However, if expectations fall far short or the negotiation is not successful, there is a great possibility that this customer will abandon the cooperative or become an opportunistic buyer (Johnson et al., 2001). Regarding credit cooperatives, "unloyalty is a serious issue and it compromises the economic situation of the cooperative, which can lead to financial difficulties" (Rossés, Tomazi, Stecca, Oliveira, & Scott, 2015, p. 32). Especially when "cooperators take advantage of the benefits of the cooperative, however, only if they offer better business proposals than the market" (Maffini, Wakulicz & Alberti, 2020, p. 11).

Thus, within cooperativism, loyalty is understood as the commitment of a member in their relationship with the cooperative (Serigati, Azevedo & Arelano, 2008) and includes several aspects, such as loyalty aligned with components of the emotional and rational aspect (Gonzales, 2005; Johnson et al., 2001). As such, it is understood that the Swedish loyalty assessment model addresses the cooperative/cooperative dimension, and it is necessary to further research that investigates this range of customers, seeking to align service, benefits, and quality of life for credit cooperatives and cooperatives producers seeking rural credit.

2.4 Empirical research on the topic

Seeking to better understand how loyalty is discussed in the cooperative context, research was carried out on the topic.

The researchers conducted a systematic search on the journal index of the Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES), Scopus, Google Scholar, and Web of Science databases, with the keywords "cooperativism", "rural credit" and "loyalty", in August 2024, filtering for works published in the last five years. Table 2 summarizes the six studies found.

Table 2*Previous studies on cooperativism, rural credit and loyalty.*

Author/Year	Objective	Result
Madaleno, Fernandes, and Alves (2018)	Observe and evaluate customer satisfaction and loyalty at Caixa de Crédito Agrícola Mútuo in the Bragança and Alto Douro region	<ul style="list-style-type: none"> - Greater customer satisfaction leads to complaints not being formalized, indicating that there is also a relationship between satisfaction and complaints. - There is a direct relationship between customer satisfaction and loyalty. - Not only do human resources directly influence the institution's image or perceived quality, but also the organization itself. Its strategies regarding the services and products that the institution introduce on the market, innovation, and the privacy of customer information impact customer satisfaction.
Maffini, Wakulicz, and Alberti (2020)	Evaluate the loyalty of members of the investigated cooperative	<ul style="list-style-type: none"> - Regarding customer loyalty regarding cooperative members, the costumers prefer the cooperative, but research other organizations looking for the scenario that best fits their budget. - There was no loyalty within the cooperative, as the producers prioritized price and what would benefit themselves. According to Dick and Basu (1994), the cooperative proves to be the member's preference, thus having a latent loyalty.
Ribeiro et al. (2020)	Analyze the loyalty of members of the Cooperativa Agrária São José Ltda.	<ul style="list-style-type: none"> - Although cooperative members claim to hand all their production to the cooperative, at times they do so to middlemen, as they offer a slightly higher value than that offered by the cooperative. Even so, approximately 70% of members are loyal to the cooperative. - Members trust the cooperative, as its solidity is one of the main reasons for remaining associated with it, followed by the benefits and surpluses distributed. It is noteworthy that transparency was the determining factor for them to join the cooperative.
Scott (2020)	Analyze the relationship between cooperative governance and intercooperation in the loyalty of members linked to the production cooperative	<ul style="list-style-type: none"> - Associating cooperative governance and intercooperation practices is fundamental to the cooperative's socioeconomic and financial performance, to provide actions that build member loyalty, providing them with greater transparency and trust in their commercial relationships. - Member unloyalty towards cooperatives is an issue that compromises the economic situation of the cooperative, which can lead to financial difficulties. - A positive relationship was perceived between good governance and intercooperation practices and member loyalty.
Luvían-Reyes and Rosas-Baños (2021)	Analyze the management and working conditions of members of small family cooperatives in Mexico City.	<ul style="list-style-type: none"> - Members have developed stable working conditions, which are linked to: job security, long-term life planning and community, in accordance with the capital-labor, space-time, and community-individual relationship. - In general, the studied cooperatives present these characteristics, to the detriment of when there is less participation and democratic planning. - Trust is a central element of management and is fostered by sharing responsibilities. Sanctions are fewer and there are few reminders to motivate responsibility, as stability enables commitment.
Rocchetti Netto (2021)	Observe factors that influence member loyalty to their agricultural cooperative.	<ul style="list-style-type: none"> - It is essential to have in-depth knowledge regarding the needs of cooperative members in order to win their loyalty, providing a healthy maintenance of the member–organization relationship. - Members who purchase supplies from the cooperative are more loyal in handing their production to it, and cooperative members with smaller areas are more participative. - Loyalty, in general, builds with time through participation in training and lectures, using the offered services and getting to know

the cooperative management. As such, it is possible for members to have more confidence in it and greater participation.

Source: *Research data.*

The study by Luvían-Reyes and Rosas-Baños (2021) investigated the work characteristics of small family cooperatives in Mexico. The adopted model is based on community development and one of the most relevant aspects for loyalty is trust.

In the case of Maffini, Wakulicz, and Alberti (2020), and Ribeiro et al. (2020) the analysis of loyalty was the main focus in the studies. Maffini, Wakulicz, and Alberti (2020) highlight the specific aspects of the relationship between cooperatives and members, such as expectations and satisfaction, in addition to the disparity in benefits offered to small and large producers. Ribeiro et al. (2020) indicate trust is the main factor responsible for the loyalty of 70% of cooperative members.

The direct relationship between customer satisfaction and loyalty is demonstrated by the study by Madaleno, Fernandes, and Alves (2018). The authors also demonstrate that customer satisfaction involves human elements, such as friendliness and politeness, as well as non-human elements, such as the reputation and image of the cooperative. Scott (2020) observed that member unloyalty to cooperatives is a serious issue and that cooperative governance can help combat unloyalty using good inter-cooperation practices.

Rocchetti Netto (2021) observed the greater participation of cooperative members who have smaller farming areas both in the acquisition of agrochemicals and fertilizers and in handing in their production about the largest producers, who are more harassed by supplying companies, making cooperative commercial strategies difficult.

Considering the studies presented in Table 2, it is possible to observe that trust and satisfaction are two foundations of loyalty when it comes to cooperatives that offer rural credit in their portfolio.

3 Methods and Procedures

The population that makes up the research corresponds to rural credit borrowers in the 2020/2021, and 2021/2022 harvests of the researched cooperative, in the municipality of Rondonia, RS, Southern Brazil. The cooperative reported that the number of cooperative producers characterized as family farmers in the municipality is approximately 300 members.

In the period from October 19th, 2022 to November 5th, 2022, data collection was carried out with 44 members. Each member is part of a farming family and has an account in the researched cooperative, in which they finance or make investments related to their agricultural activity. The researched cooperative branch has a total of 3,000 members.

The data collection instrument was divided into two sections. The initial section presented a sociodemographic profile survey, and the second one assessed loyalty based on the Swedish model proposed by Johnson et al. (2001), and in the studies by Maffini, Wakulicz, and Alberti (2020), and Ribeiro et al. (2020). The questionnaire is presented in Table 3.

Table 3

Data collection instrument.

Theoretical basis	Element investigated	Questions
Swedish loyalty analysis model (Johnson et al., 2001), adapted for cooperatives by	Customer expectation	- Was the possibility of rural credit one of the reasons why you joined your cooperative? - What is the reason or advantages of taking out rural credit?
	Perceived performance	- Did the rural credit offered by the cooperative bring you closer to the institution? In what way?

Maffini, Wakulicz, Alberti (2020), and Ribeiro et al. (2020)		- Did the rural credit offered by the cooperative make you buy or participate in other products offered by the institution? Which one or which ones?
	Customer satisfaction	- Does rural credit motivate your relationship with the cooperative? - What are the main benefits of taking out rural credit with the cooperative? Name a few. - Does rural credit facilitate financing and cash flow for your property?
	Customer complaint	- If the cooperative didn't offer rural credit, would that make you look for another cooperative or bank?
	Customer loyalty	- How long have you been a member of the cooperative? - Do you consider yourself loyal to the cooperative? Why? - Are you looking for other places to take out agricultural credit? Which? And why?

Source: Research data.

We tabulated the data automatically using *Google Forms*, which presented averages and percentages for the profile questions. Subsequently, the data was processed in a digital spreadsheet to facilitate analysis and graph construction.

To create indexes, we used Bardin's content analysis technique (2011), which allows analysis according to several established criteria. In the case of this research, we used thematic analysis with the main elements mentioned in Table 3. These elements make up the Swedish model of loyalty analysis, which, after being adapted for study in cooperatives, was adapted for credit cooperatives in this study.

4 Results and Discussion

4.1 Respondents' Sociodemographic Profile

44 people participated in this research, 31 men (70.5%) and 13 women (29.5%). All respondents are members of families that work in family farming in the municipality of Rondonia, in the state of Rio Grande do Sul, Southern Brazil. Regarding marital status, 22 (50%) were married, 19 were single (43.2%), two were widows (4.5%) and one person was divorced (2.25%). Although in Maffini, Wakulicz, and Alberti's (2020) research the data collection instrument was an interview, the results found are similar, as they indicate a predominance of men and 50% of married marital status. The respondents' age can be seen in Figure 4.

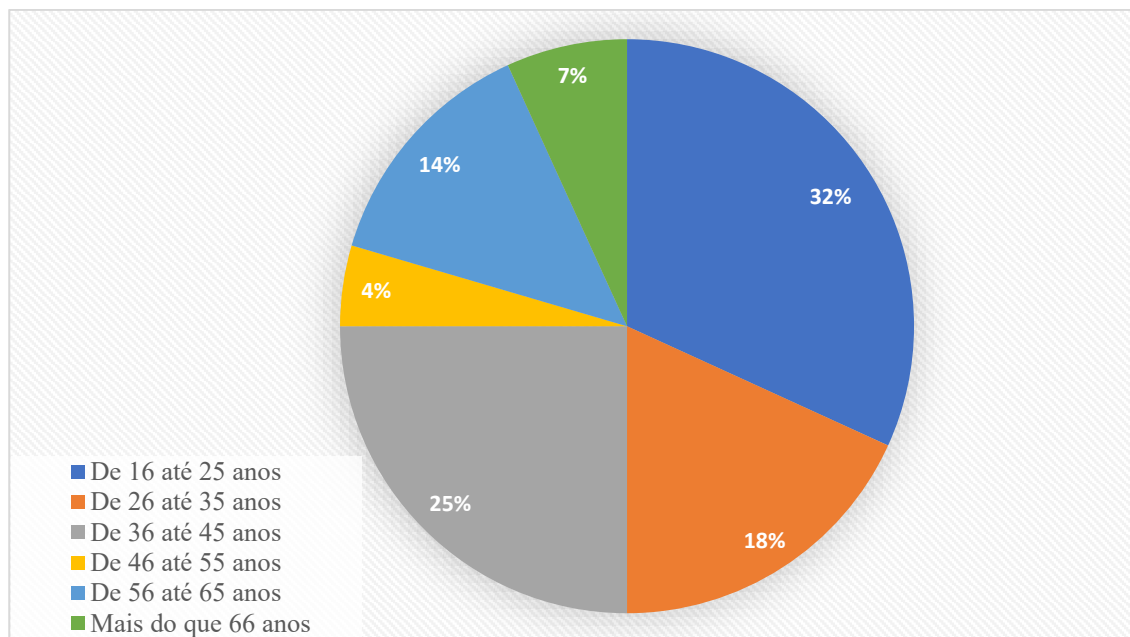


Figure 4 Age of respondents.

Source: Research data.

According to Figure 4, it can be seen that the largest representation of respondents is in the age group between 16 and 25 years old, and the second is between 36 and 45 years old. Considering that the research included all age groups indicated, from young (16 years old) to elderly people (over 66 years old) involved in family farming, this age range allows for the observation of different outlooks. Similar to the results found by Maffini, Wakulicz, and Alberti (2020), which the participants were in the second and third age groups, between 31 and 42 years old.

Regarding the respondents' formal education, 11 (25%) had incomplete primary education, four (9.1%) had completed primary education, one person (2.25%) had incomplete secondary education, 17 (38.6 %) have completed secondary education and are the largest representation of the sample, six (13.6%) have incomplete higher education, two (4.5%) have completed higher education, and three people (6.75 %) have a postgraduate degree. Completed secondary education also predominated regarding formal education in the research by Maffini, Wakulicz, and Alberti (2020).

Respondents were also asked about how many people live on the property. 29 (65.9%) indicated that three people live on their property, 13 (29.5%) indicated that four people live on their property and two people (4.5%) indicated that they live with four or more people. When asked how long they have been family farmers, 32 people (72.7%) responded for more than 12 years, eight people (18.2%) between 8 and 12 years, two (4.5%) between four and eight years, and one person (2.25%) responded to each of the other categories, which were up to one year and one to four years. In the study by Maffini, Wakulicz, and Alberti (2020), participants had also been cooperative members for more than 12 years, that is, more than a decade dedicated to the activity. Farmers were asked about their monthly income. The results are shown in Figure 5.

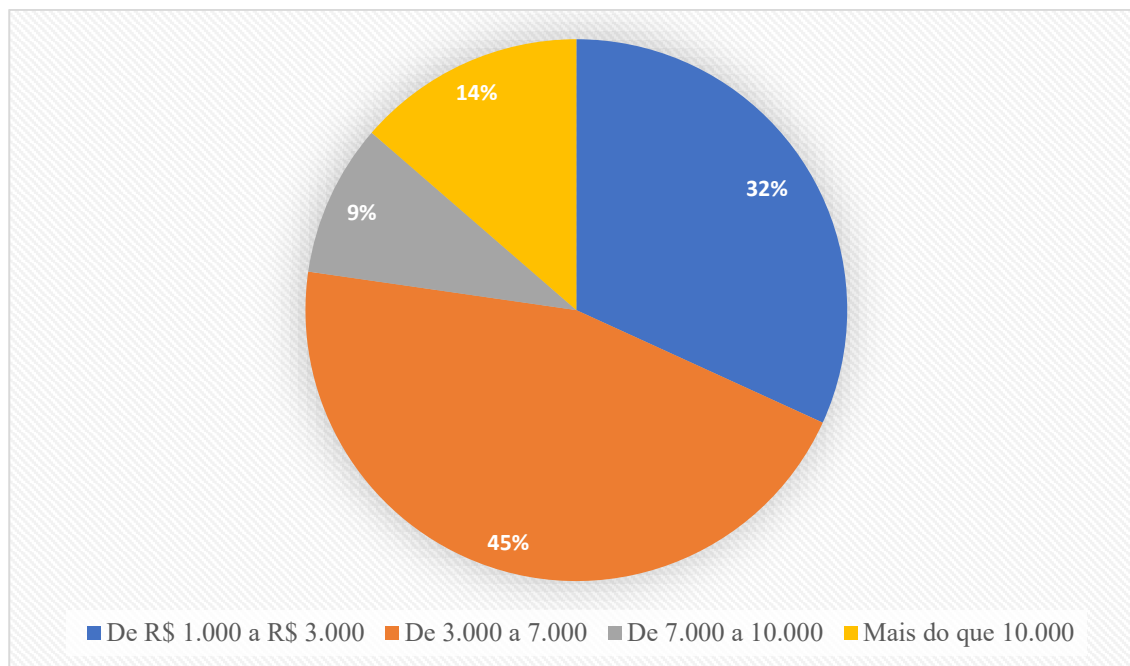


Figure 5 *Monthly income in 2022.*

Source: Research data.

As can be observed in Figure 5, the majority of participants have a monthly income between 3 and 7 thousand Brazilian reais. However, the open-ended questions allowed us to understand that this income is shared with family members and is often the gross income of the property. There are also many discounts resulting from agricultural activities carried out on the property so that net income can be reached.

When asked about the size of the property they manage with their families, 16 people (36.4%) indicate that it is between 1 and 10 hectares, and 24 people (54.5%) say that the property is between 10 and 30 hectares. These two samples represent 90.9% of the total investigated, showing that family farming in Rondinha, RS, Southern Brazil is largely concentrated on properties between 1 and 30 hectares. Only two participants (4.5%) have between 31 and 70 hectares, and two (4.5%) have more than 70 hectares. Figure 6 shows the type of production developed on the properties.

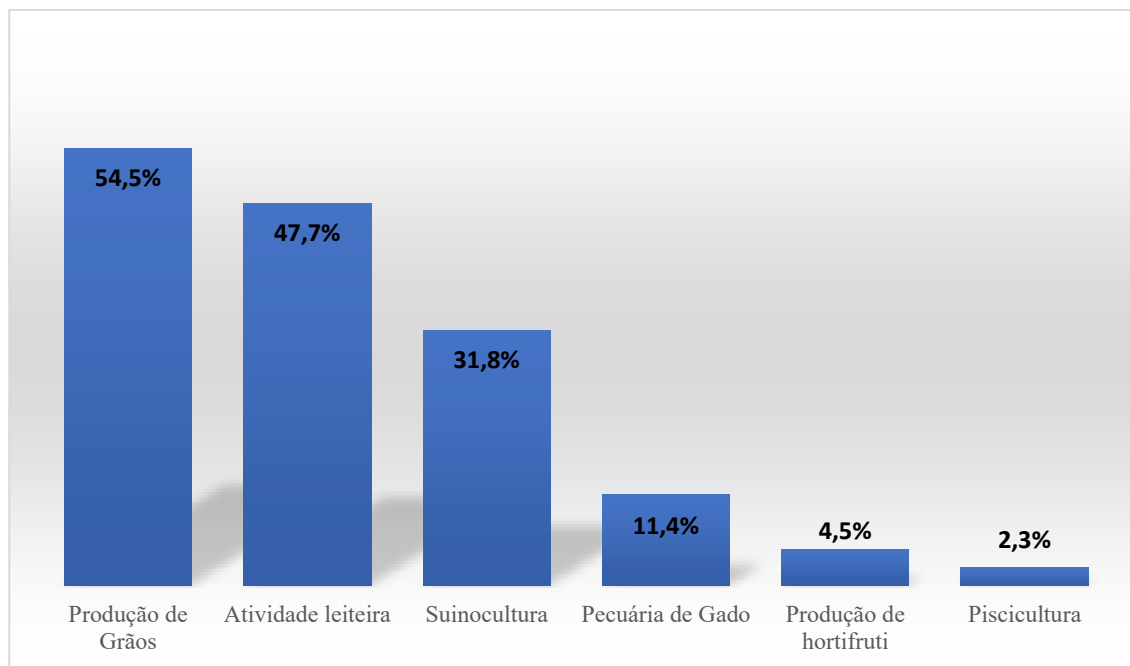


Figure 6 Property products.

Source: Research data.

Figure 6 demonstrates that the most representative activity of participants is grain production, followed by dairy production. It is worth noting that respondents could have listed as many activities as they wanted, and the research only observed productive activities. Regarding ways of selling their production, 40 participants (90.9%) sell to the local cooperative or directly to the industry, and only four people (9%) sell their production directly to end consumers.

4.2 Characteristics linking rural credit and loyalty

Given the central objective of this study, participants were asked how long they have been associated with the researched cooperative. Two people (4.5%) responded that they opened their account with the cooperative less than a year ago; eight people (18.2%) had an account with the cooperative for one to four years; 16 people (36.4%), four to eight years, representing the majority of the sample; eight people (18.2%) have had an account for between 9 and 12 years, and 10 people (22.7%) have been members for more than 12 years. In this way, it appears that the cooperative members participating in the study know about taking credit.

We also sought to understand the reason why cooperative members acquire rural credit. The results can be seen in Figure 7.

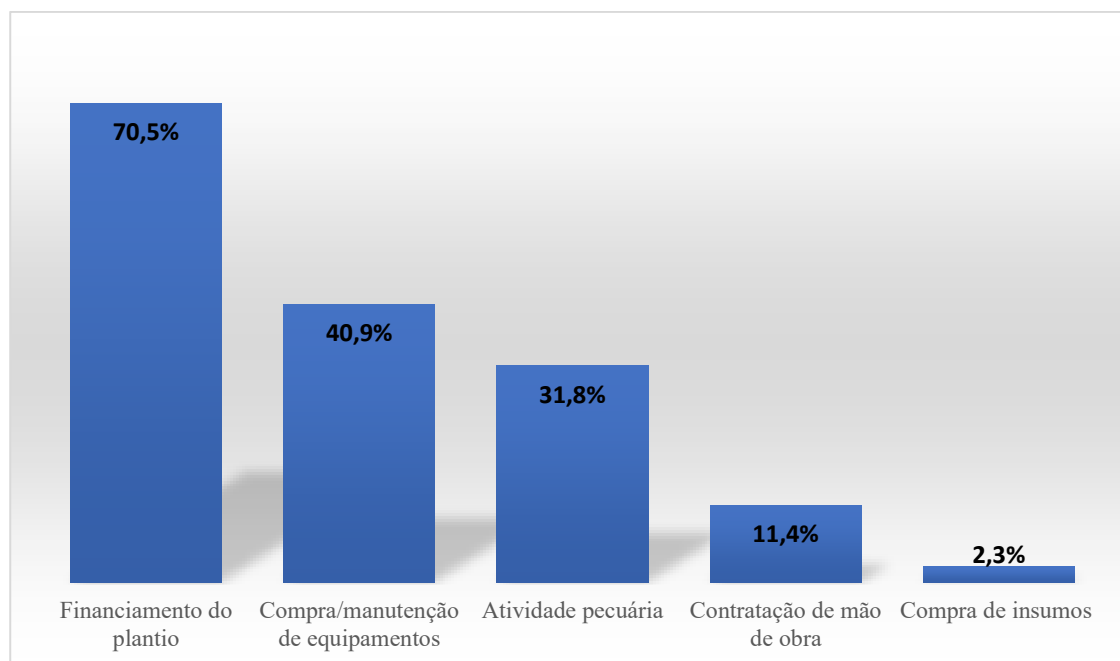


Figure 7 Reasons for taking rural credit.

Source: Research data.

As seen in Figure 7, most members acquire financing to subsidize planting and harvesting in grain production (70.5%), equipment purchase and maintenance (40.9%), and to finance livestock activities (31.8%). Table 4 presents the questions related to the act of contracting rural credit and members' loyalty taking into account the goals when acquiring rural credit.

Table 4

Characteristics linking rural credit and loyalty.

	Yes	No
Did the rural credit offered by the cooperative bring you closer to the institution?	41 people (93.2%)	3 people (6.8%)
Was the possibility of rural credit one of the reasons why you joined your cooperative?	37 people (81.1%)	7 people (15.9%)
Did the rural credit offered by the cooperative make you buy or participate in other products offered by the institution?	40 people (90.9%)	4 people (9.1%)

Source: Research data.

The first question presented in Table 4 seeks to understand whether rural credit brought the farmer closer to the institution. Most of the respondents answered yes (93.2%), which reinforces what was exposed by Ribeiro et al. (2020), that the benefits bring members closer to the cooperative.

The second question is whether rural credit was one of the reasons why the member joined the cooperative, and the majority confirmed that it was (81.1%). During data collection, 41 people (93.2%) highlighted that rural credit is important or very important for maintaining the relationship with the cooperative. According to Madaleno, Fernandes, and Alves (2018), member satisfaction is an important element in the member-cooperative relationship. Therefore, rural credit allows members to carry out their activities and may generate future benefits for them. Furthermore, 90.9% of

respondents reported that they purchased other products due to rural credit. Figure 8 shows the quantity of products that were sold by the cooperative depending on rural credit. We highlight property insurance, life insurance, and crop insurance.

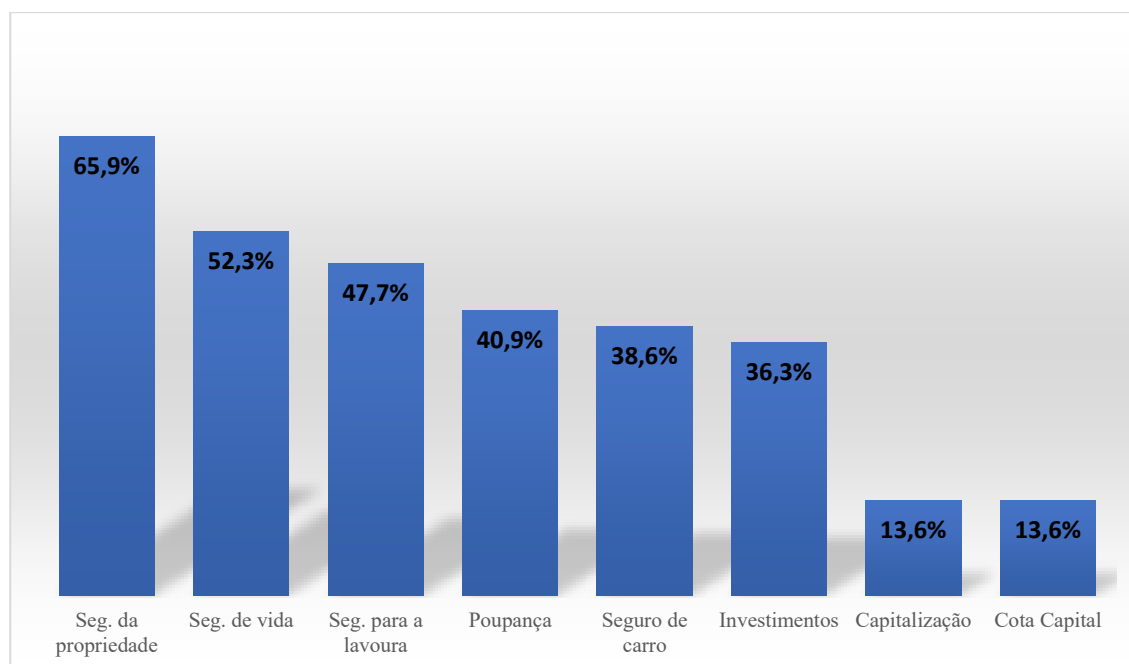


Figure 8 Products purchased from the cooperative based on rural credit.

Source: Research data.

Figure 8 shows that rural credit provides the cooperative with a series of side businesses, especially insurance and investments. Furthermore, some participants reported having more than one insurance policy due to the negotiations they carried out with the cooperative.

Table 5 presents the characteristics that link rural credit to loyalty. Furthermore, it presents an important inference from this research, in which 93.2% of respondents believe that rural credit strengthens their relationship with the cooperative, thus indicating a positive relationship between loyalty and rural credit offering. According to Maffini, Wakulicz, and Alberti (2020), positive member satisfaction generates loyalty. It follows that this strengthened relationship generates satisfaction and that it, in turn, generates loyalty.

Table 5

Characteristics linking rural credit and loyalty.

	Yes	No
Did rural credit motivate or facilitate your relationship with the cooperative?	41 people (93.2%)	3 people (6.8%)
If the cooperative didn't offer rural credit, would that make you look for another institution?	40 people (90.9%)	4 people (9.1%)
Do you consider yourself loyal to the cooperative?	32 people (72.7%)	12 people (27.3%)
Have you looked for other places to take out agricultural credit?	18 people (40.9%)	26 people (59.1%)

Does rural credit facilitate financing and cash flow for your property?	44 people (100%)	-
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Source: Research data.

The first question in Table 5 shows that rural credit motivated or facilitated the relationship with the cooperative. The main reasons are better rates and/or tariffs (75%), payment conditions (52.3%), closer relationship (47.7%), ease of renegotiation (20.5%), and distribution of results for its members, i.e. the cooperative helps the community where it is present through programs (2.3%).

The next question checks whether the member would look for another organization if the cooperative did not provide rural credit. 90.9% answered yes, they would look for another institution. They were then asked whether they were loyal to the cooperative, and 72.7% responded that they were loyal. The main reasons for loyalty reported are: not looking for another bank/institution, availability of credit, purchasing financial services only from the cooperative, good service, transparency, and rates. Simultaneously, 27.3% believe they are not loyal due to seeking other institutions both to take out rural credit and to purchase financial products due to better conditions. Regarding the loyalty of cooperative members, the findings of Maffini, Wakulicz, and Alberti (2020) demonstrate that 90% are loyal, but cooperative members always compare the benefits of competition. This corroborates the behavior evidenced by the cooperative members in this research.

The fourth question inquired if they had already looked for other places to take out agricultural credit. 59.1% answered no, as the cooperative meets their needs. However, 40.9% have already looked for other institutions. The reasons are better service, cheaper rates, and better payment terms. Finally, we sought to understand whether rural credit facilitates the financing and cash flow of their property; 100% of respondents agreed. Figure 9 shows the main benefits.

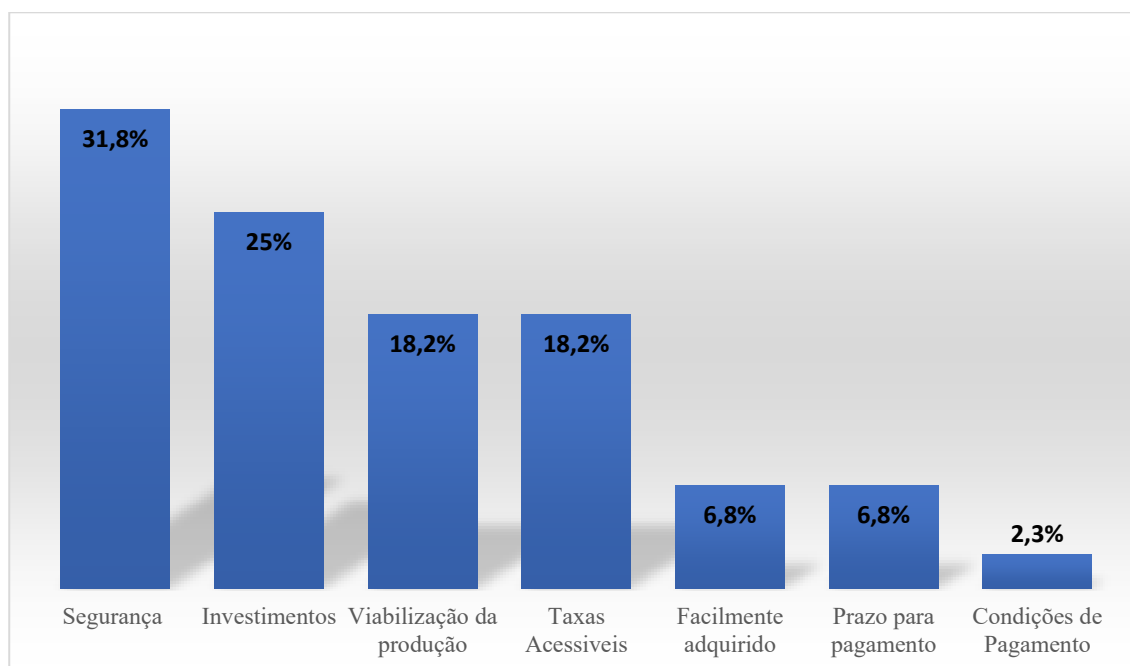


Figure 9 Benefits of rural credit.

Source: Research data.

Among the respondents, the main benefit of acquiring rural credit in the cooperative is to have security regarding the production, especially when it comes to the grain harvest. This is followed by the possibility of making investments in the property, and the production viability through the

cooperative's rural credit and affordable rates. This fact reinforces the cooperative principle of economic participation of members (OCB, 2022a), as it generates benefits for them and according to Ribeiro et al. (2020), benefits are one of the elements that keep cooperative members associated.

Observing loyalty from the Swedish model, it is clear that most of the expectations of the members who responded to the survey are met, just as rural credit performs satisfactorily for the participants, making them loyal members.

The results found regarding loyalty are similar to the study by Ribeiro et al. (2020), that is, as a result of trust and relationships, members maintain a relationship of loyalty with the cooperative.

The study by Maffini, Wakulicz, and Alberti (2020) reinforces that loyalty is also made up of the member's identification with the cooperative. In this way, the member adopts the cooperative as if it were their own and always seeks to acquire its financial services from the cooperative. For Ribeiro et al. (2020) loyalty brings security and stability for cooperatives to achieve their objectives, generating increasingly more benefits for their members, thus highlighting the relevance of obtaining it.

It can be indicated that the researched cooperative adopts an adequate governance system regarding rural credit, as it does not suffer from unloyalty or other problems highlighted by Scott (2020). Furthermore, the results show relative parity with the recommendations of Rocchetti Netto (2021), as the author highlights that loyalty is strongly related to trust and satisfaction, which were two issues that arose at different points in the research.

After analyzing the data, we infer that rural credit influences the loyalty of cooperative members, and also the sale of products, and the creation of relationships with the cooperative. It is worth noting that there was no difference between the responses of cooperative members who have smaller or larger properties, with the four respondents from the largest areas answering the questions by the majority of respondents.

Based on the results presented, we consider that rural credit is related to the loyalty of members of a cooperative in Rondonia, RS, Southern Brazil. Furthermore, the results indicate that the main reason for taking out rural credit was to finance planting, and the greatest benefit of this type of credit is the security and viability of production.

The study also suggests that rural credit helps members to hire other types of services from the institution, such as insurance, capitalization bonds, and investments, bringing the relationship between cooperative members and cooperatives even closer together.

5 Final Considerations

This study aimed to verify the relationship between rural credit and the loyalty of members of a credit cooperative in the municipality of Rondonia, RS, Southern Brazil. Additionally, we verified the sociodemographic profile of the respondents, as well as the characteristics that relate to rural credit and loyalty, the main reasons for taking rural credit, products purchased in the cooperative due to rural credit, and the main benefits of rural credit.

Methodologically, the research was characterized as exploratory. 44 family farmers from the municipality of Rondonia, RS, Southern Brazil who are members of a credit cooperative and took out rural credit in the 2020/2021, and 2021/2022 harvests participated in the research. The analysis was based on the Swedish loyalty analysis model.

Regarding the sociodemographic profile of the respondents, the majority of participants were men, married, and had completed high school. The predominant income was between 3 and 7 thousand Brazilian reais, most of the respondents own up to 30 hectares of land, with a greater focus on grain and milk production.

The results suggest a relationship between rural credit and cooperative members' loyalty in the municipality of Rondinha, RS, Southern Brazil, as 93.2% of respondents believe that rural credit strengthens their relationship with the cooperative, thus indicating a positive relationship between loyalty and offering rural credit.

As secondary results, we observed that the main reason for taking out rural credit was to finance planting. The biggest benefit of this type of credit is security, investment, and the viability of production. The study also demonstrates that rural credit makes members hire other services from the institution such as insurance, capitalization bonds, and investments. As such, rural credit strengthens the relationship between cooperative members and cooperatives, increasing the volume of business between the parties and, consequently, increasing member loyalty.

Furthermore, the main elements that make up loyalty among family farmers in Rondinha, Brazil, were identified. These are the security of being able to carry out their financial transactions and having credit available; the years-long relationship with the cooperative, making it possible to understand its structure and functioning; the satisfaction that has already been acquired over time, due to rural credit contracts previously carried out with the cooperative, with a good return.

In short, the study demonstrates that rural credit is a strategy for attracting, retaining, and strengthening relationships with members, because rural credit brings cooperative members closer together, as demonstrated in the results. In addition, to capture and retention, rural credit has a positive influence on strengthening the relationship between members and the cooperative because a large part of members purchased other products/services from the cooperative to the detriment of rural credit, as indicated in the results of this study.

Therefore, rural credit is a powerful relationship tool when adapted to the specific needs of each client. It is essential to recognize the potential of rural credit not only as a financial tool but also as a relationship device. By doing so, institutions can secure a loyal customer base and thrive in the competitive world of agribusiness.

This study contributes with important findings, especially for credit cooperatives and/or banking institutions, launching a new strategic outlook regarding the importance of rural credit as a differentiator in the relationship with customers/associates, increasing the institution's competitiveness.

The limitations of the study consist of the sample, because the study evaluates a single cooperative in a single region, as described in the methodology. Additionally, it is worth highlighting the data-collecting method made it impossible to relate the data. Therefore, it is recommended that future studies relate the socioeconomic profile with the answers to verify possible differences due to the size of the property, and level of education, among other aspects. We also recommend applying this research in a different context, as in the municipality of Rondinha, Southern Brazil, there is only one credit cooperative that provides services to family farming. Thus, if the research were carried out in a scenario of greater competition, the results could be different.

References

- Bacen. Banco Central do Brasil. (2018). *MCR - Manual de Crédito Rural*. Atualização MCR n. 640, de 5 de janeiro de 2018.
- Bardin, L. (2011). *Análise de conteúdo*. São Paulo: edições 70.
- Brasil, Banco; Diretoria de Agronegócios (2004). Evolução histórica do crédito rural. *Revista de Política Agrícola*, 13(4), 4-17.

- Costa, D. R. M., Neves, M. D. C. R., Biavaschi, J. T. F., Santos, P. D. M., Fabbri, M. V., & Theodoro, R. (2019). Cooperativas na política agrícola de crédito rural. *Revista de Política Agrícola*, 28(3), 81.
- Croteau, J. T. (1949). The credit union: Legal form versus economic function. *Review of Social Economy*, 7(2), 10-28. <https://doi.org/10.1080/00346764900000015>
- Croteau, J. T. (1963). *The Economics of the Credit Union*. Detroit: Wayne State University Press.
- Dick, S. & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22(2), 99-113.
- Elesbao, V. & Deus, E. S. (2021). Mapeamento do uso do crédito rural no ano de 2020: um estudo na Cooperativa de Crédito Centro Leste RS – Sicredi Centro Leste RS. *Salão Integrado de Ensino, Pesquisa e Extensão da Uergs (SIEPEX)*, 1(10).
- Emelianoff, I. V. (1948). *Economic Theory of Cooperation: Economic Structure of Cooperative Organizations*. Center for Cooperatives, University of California. Washington, DC.
- Gonzales, M. O. A. (2005) Gestão de satisfação e fidelidade do cliente na hotelaria: um estudo sobre os fatores que influenciam a satisfação e a fidelidade do turista internacional no Brasil. Tese (Mestrado), 142f., Universidade Federal do Rio Grande do Norte. Centro de Tecnologia. Programa de Engenharia de Produção. Natal, RN.
- Jacoby, J. & Chestnut, R. W. (1978). *Brand Loyalty: Measurement and Management*, New York: Wiley.
- Jacoby, J. & Kyner, D. B. (1973). Brand loyalty vs. Repeat purchasing behavior. *Journal of Marketing Research*, 1-9.
- Johnson, M. D.; Gustafsson, A.; Andreassen, T.; Lervik, L. & Cha, J. (2001). The Evolution and future of national customer satisfaction index models. *Journal of Economic Psychology*, 22, 217-245.
- Luvian-Reyes, G. & Rosas-Banheiros, M. (2021). Estabilidade em pequenas cooperativas na Cidade do México. Uma análise a partir da modernidade sólida e da economia social e solidária. *CIRIEC-Espanha*, (102), 229-258.
- Madaleno, P.; Fernandes, P. O. & Alves, J. (2018). Satisfaction and loyalty of customers of a financial institution: a case study. In *IBIMA Conference*, 31.
- Maffini, M.; Wakulicz, G. J. & Alberti, R. (2020). Análise da fidelidade dos associados em uma cooperativa central do Rio Grande do Sul através do modelo sueco. *Research, Society and Development*, 9(12), e2439129200-e2439129200. <http://dx.doi.org/10.33448/rsd-v9i12.9200>
- OCB, Organização das Cooperativas Brasileiras. (2022a). *O que é cooperativismo*. Recuperado em: 01 jul. 2022, de <https://www.ocb.org.br/o-que-e-cooperativismo>.
- OCB, Organização das Cooperativas Brasileiras. (2022b). *Ramos do cooperativismo*. Recuperado em: 01 jul. 2022, de <https://www.ocb.org.br/ramos>.
- Peroni, N. D. (2018). *A fidelidade em cooperativas: um estudo em organizações de agricultores familiares no Rio Grande do Sul*. 2018. (Tese de Doutorado). Universidade Federal de Santa Maria, Santa Maria, Brasil.
- Rego, A. J. C. & Wright, C. L. (2019). Uma análise da distribuição do crédito rural no Brasil. *Revista de Economia e Sociologia Rural*, 19(2), 217-238.

- Ribeiro, B., Wakulicz, G. J., Nunes, A. D. F. P., Scherer, N., & Johann, D. A. (2020). Fidelidade dos cooperados: um estudo da cooperativa agrária São José Ltda. de Jaguari/RS. *Revista Livre de Sustentabilidade e Empreendedorismo*, 5(2), 131-154.
- Robotka, F. (1947). A Theory of Cooperation. *Journal of Farm Economics*, 29(1), 94-114. <https://doi.org/10.2307/1232938>
- Rocchetti Netto, A. (2021). *Fidelidade do cooperado: fatores de influência em uma cooperativa agropecuária*. 2021. (Tese de Doutorado). Escola de Economia de São Paulo, da Fundação Getulio Vargas – EESP – FGV, São Paulo, Brasil.
- Rossés, G. F., Tomazi, M., Stecca, F. L. P. A., Oliveira, D. C., & Scott, C. R. C. (2015). Fidelidade em cooperativa agropecuária: um estudo de caso. *Revista de Gestão e Organizações Cooperativas*, 2(4), 17-34.
- Rubin, G. M., Overstreet, G. A., Beling, P., & Rajaratnam, K. (2013). A dynamic theory of the credit union. *Annals of Operations Research*, 205(1), 29-53. <https://doi.org/10.1007/s10479-012-1246-7>.
- Santos, L. S. Z., Bressan, V. G. F., Moreira, V. R., & Lima, R. E. D. (2021). Risco de crédito e eficiência técnica nas cooperativas de crédito brasileiras. *Cadernos EBAPE. BR*, 18, 956-973.
- Scott, C. R. C. (2020). *Relação entre a governança cooperativa e a intercooperação na fidelidade dos associados: um estudo em uma cooperativa de produção*. Trabalho de Conclusão de Curso (Graduação em Administração) Universidade do Vale do Rio dos Sinos – UNISINOS, São Leopoldo, RS, Brasil.
- Serigati, F. C.; Azevedo, P. F.; Orellano, V. F. (2008). *Fidelidade em cooperativas: um estudo empírico com as cooperativas paulistas*. In Anais do Congresso Sober Porto Alegre, RS, Brasil, 47.
- Smith, D. J. (1984). A theoretic framework for the analysis of credit union decision making. *The Journal of Finance*, 39(4), 1155-1168. <https://doi.org/10.1111/j.1540-6261.1984.tb03899.x>
- Smith, D. J., Cargill, T. F., & Meyer, R. A. (1981). An economic theory of a credit union. *The Journal of Finance*, 36(2), 519-528. <https://doi.org/10.2307/2327039>
- Taylor, R. A. (1971). The credit union as a cooperative institution. *Review of Social Economy*, 29(2), 207-217. <https://doi.org/10.1080/00346767100000033>