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Behaviors of Rural Entrepreneurs: Characteristics and Attitudes of Family Farming, The Case of Coopersaf/Santiago-Rs, Brazil

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ABSTRACT

The article aims to analyze the behavior of rural entrepreneurs based on characteristics and attitudes, which is the motivating reference for writing. The empirical basis was used from a study of family farming in Santiago-RS, Brazil, covering sixty-one respondents. In the method, the empirically-based article was updated, adding the eleven variables of characteristics and attitudes to be included in a qualitative and quantitative analysis, in the Sphinx software and the Excel program, verifying the observable results. The results from the analyzes showed the presence of the eleven variables investigated, signaling characteristics and attitudes of rural entrepreneurs, in twelve respondents, with high scores on the Likert scale, and characteristics and non-entrepreneurial attitudes in fourteen surveyed with low scores on the scale.

Keywords: Rural Entrepreneurs; behaviors; Family farming; Santiago-RS.

ABSTRACT

The article aims to analyze the behavior of rural entrepreneurs based on characteristics and attitudes, this being the motivating reference of the writing. The empirical base used a study of family farming in Santiago-RS, Brazil, contemplating sixty-one respondents. The method updated the base article, adding the eleven variables of characteristics and attitudes to be included in a qualitative and quantitative empirical analysis, in the Sphinx software and the Excel program, verifying the observable results. The results from the analyzes evidenced the presence of the eleven variables investigated, signaling characteristics and attitudes of rural entrepreneurs, in twelve respondents, with high scores on the Likert scale, and, non-entrepreneurial characteristics and attitudes in fourteen respondents with low on the scale.

Keywords: Rural Entrepreneurs; Behaviors; Family Farming; Santiago-RS.

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1. INTRODUCTION

This article has as its theme, the behaviors of rural entrepreneurs and, with this line of study detected in the authors Bernardo et al. (2019), it was selected to investigate the possible characteristics and attitudes of the authors Oliarski and Silva (2021) as a reference that can be tested in a re-study of family farming, through the rural producers of the Cooperativa Santiaguense da Agricultura Familiar Ltda (Coopersaf). The study by Nascimento et al. (2017), readjusting the variables of the characteristics and attitudes to be investigated, in sixty-one cooperative family farmers.

The objective of this paper is to investigate eleven variables suggested by Oliarski and Silva (2021) making them a qualitative-quantitative empirical research of the behaviors of rural entrepreneurs in family farming in Santiago - RS, in a case study, checking the observable results. The questions that are sought to clarify are which characteristics and attitudes proposed by the nominated authors are possible to be identified in the information to position in relation to favorable and unfavorable situations for rural entrepreneurship.

Regarding the study of rural families, Gasson et al. (1988), in Great Britain, reported that many interactions occur, which are multidisciplinary, in which there are knowledge of economics, anthropology, sociology, history, also associating the family development cycle, successions, female gender roles, the family relationships, on a wide spectrum until culminating in a successful rural enterprise. Aldrich & Jennings (2003) externalized the interconnections between the family and entrepreneurship, showing how changes in the family changed the landscape of entrepreneurship. Heck et al. (2008), in turn, identified two separate dimensions that may or may not be interrelated, the dimension of the family and the family business, that is, the family system and the business system. Rocha et al. (2019), in the identification of areas of knowledge that deal with rural entrepreneurship, namely: business and management; social Sciences; environmental, agricultural and biological sciences; economy; computer science among others, therefore, confirming that the theme must be approached in a multidisciplinary way.

According to Brasil (2021), the Ministry of Agriculture, Livestock and Supply classified the area of small rural properties in terms of size, the equivalent of four fiscal modules, and Santiago is defined as 35 hectares, each rural module, according to the Empresa Brasileira de Agricultural Research, Embrapa (2012). Therefore, up to 140 ha of own area is considered a small rural property in the municipality of Santiago - RS.

For Brasil (2006) to be classified as Family Agriculture (AF) and to be a rural family entrepreneur, in article 3, one who holds up to four fiscal modules, uses predominantly family labor, has some income from rural economic activities and is directing his family business or establishment.

Thus, the municipality of Santiago, is located in the middle west of Rio Grande do Sul, with geographic coordinates: longitude: 54º32'32" and latitude: 29º09'50, it has an area of 2,413,075 km², and its population is estimated at 50,622 inhabitants, according to the Brazilian Institute of Geography and Statistics (IBGE, 2015), with an altitude of 409 meters and a subtropical climate. (Santiago City Hall, 2021).

Figure 1- Location map of Santiago-RS.

Source: https://pt.wikipedia.org/wiki/Santiago_(Rio_Grande_do_Sul), location.

Regarding the municipality, the Colégio Politécnico da UFSM (2015) studied, as well as other authors,family farming in Santiago and relations with public policies, as it has a favorable history, which is perpetuated by many municipal administrations, promoting the segment under analysis. The structure built of the market garden called Ênio Kinzel is representative, a commercial structure that facilitates the arrival of products from the municipal family agriculture, allowing the access of final consumers to fruits, vegetables, pork and sheep meat, fish, sausages, cheeses , breads, cookies, cakes, cuckas, pastries, sweets, as well as other products, in addition to three more street markets, in other locations in the city, on alternate days.

2. THEORETICAL FOUNDATION

This section will address the authors who supported with their ideas in the formulation of this text, subdividing into two topics below.

2.1 Behavioral approaches to rural entrepreneurship

Bernardo et al. (2019)carried out a bibliometric study on scientific production in rural entrepreneurship. In the analysis of 417 articles published on the platform*Web of Science*on rural entrepreneurship, the authors verified the articles with the most citations by author and year of publication. Thus, they performed the analysis of factors and classified into four groups of factors. In factor 1, with the theme Rural Entrepreneurship and Development in the Rural Environment with 24 articles in factor 2, Entrepreneurial Behavior with 14 articles in factor 3, Entrepreneurship and Economic Growth with eight articles, and in factor 4, Entrepreneurial Focus of Rural Entrepreneurs with seven articles.

In this review, we adopted the line of study of the behavior of the rural entrepreneur, aiming to identify entrepreneurial characteristics and attitudes according to the reference of Oliarski and Silva (2021), as well as based on the following authors:

Cella (2002), in his dissertation, worked on rural individual entrepreneurship, in which he generated possible characteristics for this rural entrepreneurship. His work is considered a reference for entrepreneurship. The following factors that would be related to the success of a rural entrepreneur were considered.The variables stratified into: financial planning, commercial planning, communication, information, personal planning, production organization, taking advantage of opportunities and commercial experience.

Schneider (2003), in his book with the contribution of many authors, focused on the characterization of pluriactivity, and this concept that was evolving and would be contained in the rural entrepreneurship of Family Agriculture. According to the author, in addition to activities that generate income directly from agricultural and livestock activities, rural families use incomes not directly rural, but using rural space. The book cites as examples of pluriactivity activities, rural tourism, handicrafts, and extra-property services with the aim of minimizing risk and providing opportunities for persistence on rural property and remaining on the land. Also included in the social context of pluriactivity are kinship and inheritance relationships of a family nature, composing pluriactive interactions. Consequently,

Tomei and Souza (2014), talking about entrepreneurship in Family Agriculture, show that Potential barriers to rural entrepreneurship are associated with leadership and risk taking. The authors emphasized the importance of the family, social networks and formal education in the development of family farming.

They conclude their thinking, emphasizing that Family Farming cannot be considered as an entrepreneurial potential withouttypical Chumpeterian, that is, aiming at entrepreneurship with innovation, emphasizing in relation to the barriers to rural entrepreneurship, which are connected with the absence of leadership, the low ability to take risks and the fact that rural entrepreneurs do not have, in many cases, the characteristic of generating a new product or a new operational process. They also highlighted points that, according to them, are important for the implementation of public policies in the barriers that make it difficult for Family Farming to become rural entrepreneurship in Brazil: a contingency approach; directing resources towards more entrepreneurial profiles; favoring objective and subjective evaluations of the results of resource allocation; development to incubate business, training and management education. (Tomei & Souza, 2014).

Casali et al. (2019) carried out a study of entrepreneurial skills in rural entrepreneurship.The results indicated ten entrepreneurial skills, citing Lenzi (2008, p.47), which are: achievement set - search for opportunities and initiative (BOI), taking calculated risks (CRC), quality and efficiency requirements (EQE), persistence (PER), commitment (COM), planning set - information search (BDI), goal setting (EDM), systematic planning and monitoring (PMS) and the power set - persuasion and contact network (PRC) and independence and self-confidence (IAC). But, in the survey, they were present among the producers, with emphasis on the requirement for quality and efficiency (EQE), persistence (PER) and commitment (COM), demonstrating that producers act as rural entrepreneurs on their properties. However, difficulties were identified in planning and systematic monitoring (PMS) and setting goals (EDM) that did not obtain results as satisfactory as the other competencies. Thus, the authors made suggestions for improvement for unsatisfactory skills with rural producers. The study's limitation lies in the sample, which is considered low.

Flaviano et al. (2019) carried out studies in three cases in the states of Minas Gerais and Rio Grande do Sul, to verify elements of rural entrepreneurship, which would possibly allow the distribution of wealth and socioeconomic development. They identified entrepreneurial trajectories as potentially favorable opportunities for business. They also observed the reserve of cases in taking risks, thus denoting a characteristic not favorable to rural entrepreneurship.

Fan and Fichman (2021) in the article on 44 rural entrepreneurs in China, comment on the difficulty in relation to low income, and the focus of the article is the difficulty in understanding the inequality of information among Chinese rural entrepreneurs. The authors

suggest social technologies to minimize deficiencies, not just information and communication technologies (ICTs) that are used with technological resources.

Dal Bello et al. (2021), in Portugal, carried out a survey in the new rural, in low population density locations, in relation to 26 new rural entrepreneurs. However, the respondents externalized difficulties related to entrepreneurship, mainly with the lack of infrastructure, little pre-existing knowledge, the need for financial capital and the absence of adequate labor.

Ivari et al. (2021)in India, surveyed 370 rural villagers in the city of Khalilabad in 23 villages on the outskirts of the city. The results obtained, in the villages of the city, identified the performance of rural entrepreneurs, considering them to be weak. They found the poor performance of rural entrepreneurship in the villages and the need of those surveyed to structure the villages of the city for the enterprise, with the exception of the development of public infrastructure (water, electricity, etc.), in other areas of business infrastructure, they had no performed well and were not able to achieve the desired goals.

The article carried out in Indonesia, by Meutia et al. (2021),aimed at explaining the motivations for local community participation in rural property companies and analyzing the potential resources and capital to support rural entrepreneurship. Field research was carried out in two rural areas of Lampung Province, Indonesia. In the conclusions, the authors suggest the promotion of entrepreneurial ecosystems within rural entrepreneurship, which is a dynamic study. Rural enterprises need government policy and regulations that encourage strategic programs to generate business opportunities. The authors assert that the suggested business ecosystems to sustain rural enterprises need legal policy, strategic programs, business opportunity, innovation, local community participation, social capital, competitive resources, networks, partnerships,

Thomakis and Daskalopoulou (2021) identified, among rural entrepreneurs in Greece, the predominant focus of economic-financial concerns, manifesting the strong impact that the economic environment has on individuals' points of view in relation to rural entrepreneurship. On the other hand, rural entrepreneurs seem to see the crisis as an opportunity for the private sector, denoting that even with a hostile economic environment, the opportunity can be generated for rural producers, as long as they have entrepreneurial characteristics and attitudes.

2.2 The studies that covered Coopersaf

Coopersaf was the subject of its activities, being studied by the Polytechnic of UFSM, (2015). The cooperative in Santiago was founded in 2011, contemplating family farmers and livestock to organize the sale in short circuit of commercializations by family agriculture and serve the programs: National School Feeding Program (PNAE) and Food Acquisition Program by Simultaneous Donation (PAA).), for municipal and state schools. The segments in which the cooperative operates are: fruit, vegetables, bakery, flour, milk derivatives, honey and it is in the process of accreditation for sausages. The products are inspected by the Municipal Inspection Service (SIM) and by the Inspection Coordination of Products of Animal Origin (CISPOA).

Based on the research by Silva (2016), in his doctoral thesis, about the short chains of commercialization with fruit and horticulture, the analysis of the process of social construction,

occurring in the municipality, productive and economic interactions of family farming and even the cooperative members of Coopersaf.

Also Balem et al. (2016) dealt with family farming (AF), Technical Assistance and Rural Extension (ATER) and the National School Feeding Program (PNAE). The authors made a comparison of two municipalities, which included the municipality of Santiago. The authors identified that only Santiago acquired his food from the AF and the cooperative, to meet the need for food in municipal schools for the PNAE.

In 2017, the cooperative was mentioned indirectly in a case study (the name of the cooperative was omitted), which consisted of the analysis of entrepreneurship and non-individualist profile. In this article, it was found, in the entrepreneurship index, being classified into strata: stratum 1, inexistent level of entrepreneurship, which consisted of 4.9% of rural producers, and in stratum 2, low level of entrepreneurship, with 29.5 %. In stratum 3, regular level with 19.7% and in stratum 4, good level of entrepreneurship, with 24.6%. The last stratum 5 is considered an excellent level of entrepreneurship, with a result of 21.3%, so the highest result that was recorded was the low level of entrepreneurship. (Nascimento et al., 2017).

In the same year, in the article by Ripp and Dutra (2017), the authors analyzed the PNAE in operation in the municipality of Santiago - RS. In the conclusions, they mention that Coopersaf, despite being the reference organization in institutional sales for the program, has difficulty in supplying all the volume demanded by the schools. This demonstrated the need for planning improvements to meet the demand for the supply of fruits and vegetables, to meet the PNAE resources, which should be oriented towards qualitative purchases, such as those described in the Program. Thus, it is understood the need for Coopersaf's AFs to schedule deliveries according to the quantity and quality provided for in the purchase-sale contracts.

Also in the same year, Souto et al. (2017) compared the Family Farms of Coopersaf/ Santiago - RS and the corners of Luzes and Pedro, in São Francisco de Assis - RS, both in Vale do Jaguari - RS. The purpose of the article was to classify the socio-productive profiles, related to an indicator of entrepreneurship, linked to income scales, and to an indicator of individualism-collectivism, called non-individualistic profile (PNI). The authorsidentified results and compared the managerial socio-productive profiles, in which they would propose the following classification: individualist profile (IP), individualist profile + intermediate (PI+I) and non-individualist profile (PNI). They concluded that there are individualisms and collectivisms in rural areas and, in this comparison, the Non-Individualist Profile (PNI) obtained the highest estimated monthly income averages.

Anibele (2021), in an interview given by the president of Coopersaf, in the current management, informed that Coopersaf is present in Santiago in the four AF fairs in the city, its cooperatives sell individually and are directly marketing to customers in the municipal market, as well as for purchases by bidding from the Brazilian Army through the cooperative. For municipal and state schools, food for school lunch and lunch is provided, again, in a bidding process, in the modalities of the Food Acquisition Program (PAA Simultâneo) that aim at access to food and incentive to PA, from the National Supply Company (Conab), through the Ministry of Development and Citizenship. Therefore, today Coopersaf operates in the short chain trade, locally, it supplies the municipality, to the State and the Federal Government, in their public policies to support the AF, from food to education (PNAE) and in a bidding process also for food for the Brazilian Army. It is an evolution since the article by Ripp & Dutra (2017).

3. METHODOLOGICAL PROCEDURES

As a basis for the reference of this article, the characteristics and entrepreneurial attitudes of small rural producers were used as Oliarski & Silva (2021), in the following characteristics, in a qualitative way, with the questions to be measured: planning of activities, administrative skills, commercial experience, vision of opportunities, family involvement and innovation, in addition to entrepreneurial attitudes: productive diversification, search for knowledge, availability to adhere to new technologies, risk sharing and persistence; as a structure to be worked on in the article by Nascimento et al. (2017).

In the empirically based research, the article by Nascimento et al. (2017), so the procedures were reviewed and inserted in the respective forms contained in the*software*Sphinx. From the aforementioned article, we analyzed sixty-one family farmers from Coopersaf - Santiago, RS and, thus, inserted new questions in the*software*. The questions to be operationalized in a qualitative way by Oliarski & Silva (2021) were inserted in the*software*, in the form of questions with variables and answer options, so that the answers were transformed both qualitatively and quantitatively de Nascimento et al. (2017).

As for the original operational methodology, it consisted of of qualitative and quantitative methodological questions in Nascimento et al. (2017). In this, they were transformed into the composition of the perception of the classification and attitudes of entrepreneurship, by Oliarski and Silva (2021), and, for operationalization, the Likert scale (1932) was used, graduating and ranging from 1 (Insufficient), 2 (Poor), 3 (Fair), 4 (Good) and 5 (Excellent).

We considered the aforementioned entrepreneurial characteristics, that is, the items used qualitatively to apply a numerical score, according to a content analysis by Bardin (2011), so it was possible to analyze the entire form, in which there were up to 226 questions (not all the questions were answered) with open and closed answers and multi-category scales, being, thus, finalized in a numerical perception in the Likert scale (1932), being possible to find each classification and entrepreneurial attitudes of the sixty-one respondents of Nascimento et al. (2017).

To analyze the constructs of entrepreneurial characteristics, we used the questions on the form and the answers of those surveyed, performing the content analysis, as follows:

- Activity plans - estimated income, education level of the head of the family, areas (total, owned, leased, in partnership, in condominium), agricultural crops, agricultural productivity, technical assistance, investment condition, soil analysis, use of agricultural machinery , machinery technology, machinery in the milk drum, native pasture, winter pasture, summer pasture, perennial pastures, annual and perennial crops, large animals, medium-sized animals, small animals, fruit growing, vegetables/roots ;
- Administrative Skill – use of technology in farming, land management (monoculture, crop rotation, intercropping, planting + animals), use of inputs, monitoring of production costs, monitoring of sales prices, best time of year for commercialization and sale , cost reduction, costing of agricultural crops, Declaration of Aptitude to Pronaf (DAP), subsistence crops, frequency and quality of technical assistance, vegetables/roots, vegetable/root production technology, fruit growing, tobacco, beef and dairy cattle , pig farming, sheep farming, goat farming, poultry farming, fish farming, beekeeping, calendar and sanitary management, animal supplementation;

- Commercial Experience – marketing: ease of marketing, degree of satisfaction with the marketing of production, marketing of vegetables/roots, ease of marketing of vegetables/roots, satisfaction with the marketing of vegetables/roots, average sale of vegetables/roots per month, marketing (cattle of meat, swine, goats, sheep, poultry, fish, honey and derivatives, eggs, homemade products, etc.), where it sells (direct to the consumer, at the fair, at the cooperative, slaughterhouses/slaughterhouses, etc.), satisfactions of commercializations.
- Opportunity Vision – collective marketing, collective purchases, sales to cooperatives, sales by associations (individual income), individual entrepreneurship, what do you need to have greater rural competitiveness, which threatens the property in rural competitiveness;
- family involvement – number of family members, casual workers, retirement/pension, supply of family labor to third parties, homemade products it sells;
- Innovation – management systems: agricultural, animal, productive, agricultural technologies/machinery, use of applications/*software*, adds value to production, organic agriculture, technologies (artisanal, outdated, functional, advanced).

In the analysis of the constructs to determine the entrepreneurial attitudes, we proceeded from the questions of the form and the answers of the respondents, making the content analysis, as follows:

- Productive Diversification – analysis of productive activities, diversified or non-diversified production, own consumption;
- Search for Knowledge– offering short-term courses that would be of interest to the family or the rural property, twenty courses were suggested, plus an alternative like other courses. Content analysis by diversified production;
- Discipline for New Technologies – content analysis by diversified production, propensity to new technologies, availability of resources/investments, analysis of the entrepreneurship index, analysis of the indices: individualist profile (PI), individualist profile + intermediate (PI+I) and non-individualist profile (PNI));
- Risk Sharing - areas (total, owned, leased, in partnership, in condominium), use of banks and credit unions in each productive activity or not, equity capital for investments, levels of investment capacity (low, medium, high), use of inputs (low, regular, good, excellent), on your property requires investments that you consider (low, medium, high);
- Persistence – content analysis: estimated income, diversified production, hectares x productive activities x productivity, health (INSS pension).

Thus, the operation was carried out to collect, tabulate and analyze the data, which generated information for the following section.

4. RESULTS AND DISCUSSIONS

This updated analysis, according to the aforementioned methodology, provided the qualitative and quantitative measurement of the responses to the forms. Following the first analysis, in table 1, the entrepreneurial characteristics asOliarski and Silva (2021), the theory for the study and the operationalization of Souto et al. (2017) and Nascimento et al. (2017).Table 1 shows entrepreneurial characteristics at scale.

Table 1- Characteristics: analysis of the planning of activities, administrative skills, commercial experience, vision of opportunities and family involvement, in scale, average and standard deviation.

Entrepreneurial characteristic/scale	**1 Insufficient**	**two Weak**	**3 Regular**	**4 Good**	**5 Excellent**	TOTAL	Average on scale	Detour Standard
Activities Planning	4.9% (3)	32.8% (20)	**36.0% (22)**	21.4% (13)	4.9% (3)	(61)	2.89	0.97
Administrative Skill	4.9% (3)	**36.0% (22)**	31.3% (19)	22.9% (14)	4.9% (3)	(61)	2.87	0.99
Commercial Experience	3.2% (two)	19.6% (12)	**42.6% (26)**	31.3% (19)	3.3% (two)	(61)	3.12	0.88
Opportunity Vision	0.0% (0)	26.3% (16)	**42.6% (26)**	29.5% (18)	1.6% (1)	(61)	3.07	0.79
Family Involvement	0.0% (0)	3.3% (two)	39.4% (24)	14.7% (9)	**42.6% (26)**	(61)	3.97	0.98
Innovation	3.3% (two)	34.5% (21)	**39.3% (24)**	22.9% (14)	0.0% (0)	(61)	2.82	0.83
Set	2.7% (10)	25.4% (93)	**38.5% (141)**	23.8% (87)	9.6% (35)	100% (366)		

Source: Authors' elaboration (2021), using SPHINX software.

In table 1, of the sixty-one surveyed investigating entrepreneurial characteristics, we highlight the highest percentages for analysis. Therefore, in terms of the activity planning characteristic, the answer obtained was grade 3 (Regular), with 36.0% of the respondents. In the characteristic administrative skill, grade 2 (Weak) was obtained with 36.0% of the respondents. In the commercial experience characteristic, grade 3 (Regular) was obtained, with 42.6% of the respondents. This commercial experience, in another analysis, was identified with sales by 40 respondents (65.6%) who hold AF fairs or sell direct to the consumer, in addition to sales in summer and winter crops, beef and dairy cattle, swine , sheep, fish farming, fruit farming and garden products; characterizing a diversified production trend.

In the characteristic view of opportunities, grade 3 (Regular) corresponded to 42.6% of the respondents. In the family involvement characteristic, the best result identified grade 5 (Excellent) had 42.6% of the respondents. This characteristic was evidenced in the responses to the marketing of homemade products such as cookies, breads, hominy, wheat flour, cuckas, sweets, cakes, salami, cheeses, cookies and juices, with 33 respondents (54.1%) out of 61, who performed these activities that certainly involve the family, because, in the answers, there were no formal employees. The innovation characteristic was grade 3 (Regular) with 39.3% of respondents. In the group analysis in relation to the characteristics, the score 3 (Regular) was plotted with 38.5% of the respondents.

In table 2, the second analysis, the entrepreneurial attitudes according to the method of the aforementioned authors.

Table 2 - Attitudes: analysis of productive diversification, search for knowledge, discipline for new technologies, risk sharing and persistence, in scale mean and standard deviation.

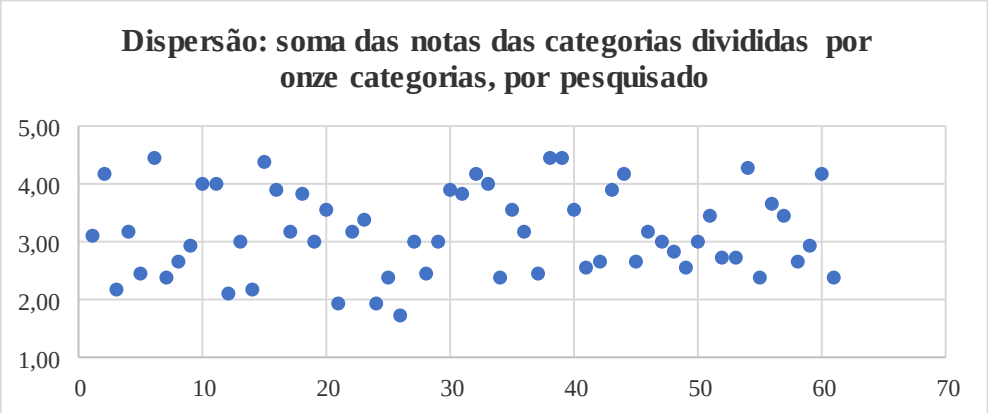
Entrepreneurial attitudes/scale	**1 Insufficient**	**two Weak**	**3 Regular**	**4 Good**	**5 Excellent**	TOTAL	Average on the scale	Detour Standard
Productive Diversification	0.0% (0)	9.8% (6)	**42.6% (26)**	24.7% (15)	22.9% (14)	(61)	3.61	0.95
Search for Knowledge	1.6% (1)	11.5% (7)	**52.5% (32)**	34.4% (21)	0.0% (0)	(61)	3.20	0.70
Discipline for New Technologies	1.6% (1)	23% (14)	**50.8% (31)**	21.4% (13)	3.2% (two)	(61)	3.02	0.81
Risk Sharing	13.2% (8)	**36.0% (22)**	11.4% (7)	21.4% (13)	18.0% (11)	(61)	2.95	1.36
Persistence	0.0% (0)	27.8% (17)	**36.0% (22)**	21.4% (13)	14.8% (9)	(61)	3.23	1.02
Set	3.3% (10)	21.6% (66)	**38.7% (118)**	24.5% (75)	11.9% (36)	100% (305)		

Source: Authors' elaboration (2021), using SPHINX software.

In table 2, of the sixty-one surveyed investigating entrepreneurial attitudes, we highlight the highest percentages for analysis. Therefore, in terms of productive diversification attitude, the answer obtained was grade 3 (Regular), with 42.6% of the respondents. In the attitude of seeking knowledge, grade 3 (Regular) was obtained with 52.5% of the respondents. In the discipline attitude towards new technologies, we obtained grade 3 (Regular), with 50.8% of the respondents. In the risk-sharing attitude, the score 2 (Weak), corresponded to 36.0% of the respondents. There is an explanation for this score 2, as the respondents reported the use of their own resources, therefore, this representative portion did not access external funds, either for funding or investments, a possible limitation to rural entrepreneurship. In the attitude of persistence, there was a grade 3 (Regular), with 36.0% of respondents. Persistence, through content analysis, sought to express in numbers the survival trend with the factors included in the analysis: estimated income, short, medium and long-term income diversification, and other previously mentioned criteria.In the overall analysis in relation to attitudes, a grade 3 (Regular) was observed, with 38.7% of the respondents.

In Figure 2, below, we present how the dispersion of the sixty-one respondents occurred, that is, the eleven categories in the quantification structure, using the averages of the results of those surveyed, inserting in the following chart.

Figure 2 - Classification scale of the eleven categories analyzed, by the number of respondents (61).



Source: Authors' elaboration (2021), using the Excel program.

Segmenting the analysis of the graph, we sought to interpret and explain the strata of grades from 4 to 4.5 on average, by 12 respondents (2,6,10,11,15,32,33,38,39,44,54 and 60), who have entrepreneurial behaviors, that is, favorable entrepreneurial characteristics and attitudes, which were detected through the analysis:

Estimated income from medium to high in the survey, in relation to education, one respondent called himself semi-illiterate, others even completed high school.Regarding areas: up to 10 ha (2 surveyed), over 11 ha to 20 ha (1 surveyed), from 21 ha to 149 ha (9 surveyed), that is, a tendency to work with more areas, either owned or leased or in partnership, denoting a propensity to accept calculated risks, expand production and income scales. Very diversified, with technical assistance and high frequency of attendances per year. Use of technology in farming from functional to advanced. Land use with crop rotation or planting + animals, use of inputs from regular to optimal. Most monitor production costs, monitor prices and sales times, seeking to reduce costs with increased quality. Own machinery or in partnership. They produce and sell in different sales channels. They are proactive, adding value or packaging to products in multiple sales. With productive diversification, they provide short-term, medium-term and long-term incomes, thus minimizing risks and being ready for opportunities. There is a favorable balance between income and costs/expenses that allows reinvesting in the property. The use of financial leverage through obtaining loans from banks and credit unions is well used by this stratum of rural producers. Collective marketing (sale), two disagree or are indifferent from twelve respondents, in relation to collective purchases, two disagree and the rest agree. Sales by cooperatives, one disagrees and the rest agree. Six sell homemade products in the income supplement. In the classification of socio-productive profiles, they ranged from PI+I, individualist profile + intermediate to PNI, non-individualist profile. Productive profile 100% diversified.

Next, the interpretation and explanation of the stratum of grades below 2.5 of the average, in figure 2, with 14 respondents (3,5,7,14,21,24,25,26,28,34,37,55 and 61), who have some non-entrepreneurial behaviors, that is, non-entrepreneurial or unfavorable characteristics and attitudes that were detected through the analysis:

Estimated income from insufficient to regular from the survey. Regarding education, respondents have from 4th grade to complete high school. Regarding the areas: up to 10 ha (9 surveyed), over 11 ha to 20 ha (2 surveyed), from 21 ha to 35 ha (3 surveyed), being entirely in their own area, without leases or areas in partnership. Five in the spring/summer plant corn, soybeans and, in the winter, wheat. Six have cattle equivalent to one animal per hectare, that is,

low production efficiency. The technology ranges from artisanal to outdated and predominates from low to regularthe use of inputs. Land management, six respondents with planting + animals, one with intercropping and eight with monocultures. Investments in the property, with low, medium and high requirements of need, the investment condition: low and medium. Only two respondents track costs, six respondents track prices and sales times. Regarding machinery, eight respondents have their own machinery, two are rented, one in partnership and three do not have machines. The machinery technology is artisanal and outdated. In subsistence cultures, nine respondents sell directly to the consumer and five of the nine, at fairs in the municipality. Technical assistance every six months or not. As for own resources are scarce to invest in the property, and they have low phytosanitary care for the animals on the property. Pigs and sheep are more intended for their own consumption, with few sales, the same occurs with poultry and eggs, with only six respondents selling. In fruit farming, only four respondents trade. Despite the highly favorable responses in relation to sales by cooperatives and collective purchases, we observed some potentially with a false profile, tending to individualistic profiles (PI) or individualistic + intermediate profile (PI+I). In relation to the entrepreneurial profile, it is between non-existent and the low level of entrepreneurship predominates. In fruit farming, only four respondents trade. Despite the highly favorable responses in relation to sales by cooperatives and collective purchases, we observed some potentially with a false profile, tending to individualistic profiles (PI) or individualistic + intermediate profile (PI+I). In relation to the entrepreneurial profile, it is between non-existent and the low level of entrepreneurship predominates. In fruit farming, only four respondents trade. Despite the highly favorable responses in relation to sales by cooperatives and collective purchases, we observed some potentially with a false profile, tending to individualistic profiles (PI) or individualistic + intermediate profile (PI+I). In relation to the entrepreneurial profile, it is between non-existent and the low level of entrepreneurship predominates.

5. FINAL CONSIDERATIONS

In this article, we seek to follow the references of entrepreneurial behaviors to the line of research, found in the work of Bernardo et al. (2019), adding to the entrepreneurial characteristics and attitudes of Oliarski and Silva (2021). With these foundations, we selected the work by Nascimento et al. (2017), empirical research, to revisit it and add the eleven variables (characteristics and attitudes), by including new data in the*software*in order to generate new information using the described methodology. Thus, providing an opportunity to apply theory and practice in the Coopersaf Family Agriculture case study in Santiago-RS, updating it in the sixty-one surveyed.

With the line of research and reference defined, the adaptation and applicability in the empirical research was adjusted very efficiently, providing, in table 1, the six characteristics being placed as variables and crossing with the Likert scale (1932) from one to five , thus identifying each quantification, making a total resulting in three grades on the scale, that is, a regular result of 38.5%, in the characteristics evaluated in the sixty-one scale surveyed, together. In relation to the variables attitudes, and in table 2, in relation to the five attitudes, in the overall analysis, the score 3 (Regular) was plotted, with 38.7% of the respondents, out of the sixty-one respondents.

However, in Figure 2, in the graph, we added the individual scores of the respondents and took the average. Each score was allowed to be visualized on the graph and we chose to check the highest stratum (4 and 4.5 grade). This stratum was identified with the theory presented in relation to the characteristics and attitudes that favor rural entrepreneurship, corroborating the vision of the cited authors.

We emphasize the five characteristics of the eight of the author Cella (2002), which were possible to be worked on in the article and identified in the respondents: financial planning, commercial planning, production organization, taking advantage of opportunities, and commercial experience. In relation to Schneider (2003), pluriactivity was observed.

Already de Tomei & Souza (2014) in relation to barriers to rural entrepreneurship in terms of leadership, in Santiago, the two leaders: Anibele (Coopersaf) and Pavanelo (Rural Workers Union of Santiago, Capão do Cipó and Unistalda) who are already in the dilemma for the renewal, as they contributed a lot with their actions, but they must have alternation of leaderships to give segment in new actions and ideas.

The ability to take risks was proven in the stratum of figure 2 with 12 respondents,therefore, we prove the contribution of Tomei & Souza (2014), also, the differential of the family presence promoting the increase of production and commercialization, the increase of income. And, in the same graph, the unfavorable inverse is the weak rural entrepreneurship in the 14 respondents with average grades in the stratum below 2.5 grade.

In Flaviano et al. (2019), Dal Bello et al. (2021), Thomakis & Daskalopoulou (2021), Ivari et al. (2021) and Meutia et al. (2021) in relation to the structuring of managerial/productive infrastructures, opportunities in times of crisis, formation of networks and partnerships that are a process, sometimes slow and arduous, to be made, but those who are structured and ready can take advantage of opportunities , both in times of crisis or with the increase of new government legislation, or for strategic programs and to be inserted in commercializations, therefore, favorable to rural entrepreneurship.

This is the case with the evolution of Coopersaf, since Balem et al. (2016) and Ripp & Dutra (2017), in which the gap between contracts and delivery failures has decreased, and today they are expanding the actions of federal programs (simultaneous PAA, Conab and Brazilian Army), state and municipal, in meals and school lunches (PNAE). Therefore, providing the AF of Santiago, specifically, Coopersaf, to provide food and increase the commercialization of these rural AF entrepreneurs able to participate, structured with managerial and productive infrastructure, and generate income. They also add to the promotion of AF de Santiago's social capital and regional development.

We suggest replicating the references of investigations of the behavior of rural entrepreneurs, with the characteristics and attitudes of the aforementioned authors, in addition to the methodology of Nascimento et. al (2021) and this article in empirical research, providing new case studies of Family Agriculture in rural entrepreneurship studies, covering other realities to determine the possible applicability of this empirical study, in other experiences and locations.

There is still another suggestion of implementing a program with scientific research and community outreach, comprising the target audience of the AF, a detailed analysis of the intermediary group in Figure 2, those who are just short of undertaking, who need “the initial push” of the author Veiga (2001), and again to be studied to understand the situations that

involve behaviors (characteristics and attitudes), in order to understand which situations are not to undertake or what is missing to undertake more.

Identify, also, the lack of motivations, the productive, managerial and operational infrastructures, understanding them and, if possible, foment with incubations and partnerships of the Universities/Federal Institutes, with the public entities and as the bodies of the Technical Assistance Company and Rural Extension of Rio Grande do Sul (Emater/RS), the Brazilian Support Service for Micro and Small Enterprises (Sebrae), the Rural Learning Service (Senar), and civil society participants, such as the Federation of Agricultural Workers in Rio Grande do Sul (Fetag/RS), in addition to possible partners for financial and credit solutions (banks and credit unions), aiming to increase the self-esteem of family farmers, the necessary information for decision making and action to undertake and to those who want this possible partnership.

After a selection of family farmers, more viable according to the information collected again in relation to characteristics, attitudes and infrastructure, offer courses and training, helping, for example, in the production schedule, in the feasibility of logistics and to offer sales *online* to the consumer through mobile applications with scheduled deliveries of a basket of food products, in natura or semi-processed, providing opportunities and innovating with this personalization of agricultural products according to the seasons and, differential of organic products, opening a new sales channel in short chains.

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