








Family farming and institutional markets: analysis of the perception of Universidade Federal de Pelotas restaurant goes about a preferential shopping system

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ABSTRACT: *The purpose of this article was to investigate the perception of the students of the school restaurants of the Federal University of Pelotas (UFPel) on a system of preferential purchases. This is done through public calls that give preference to production coming from the family agriculture of Pelotas and region. A semi-structured questionnaire (survey) was applied focusing on the level of knowledge and information of respondents on what is family farming, on the aforementioned system and their respective social developments. It was verified that there are differences of perception according to the area of knowledge of the respondents. Meanwhile, there is great convergence regarding the importance of this system for the regional economy.*

Key words: regional development, UFPel PNAE, PAA, social representations.

Análise da percepção dos frequentadores dos restaurantes universitários da Universidade Federal de Pelotas sobre um sistema de compras preferenciais

RESUMO: *O propósito do artigo é investigar a percepção dos frequentadores dos restaurantes universitários da Universidade Federal de Pelotas sobre um sistema de compras preferenciais. Este se dá através de chamadas públicas que dão primazia à produção oriunda da agricultura familiar de Pelotas e região. Foi aplicado um questionário semiestruturado (pesquisa tipo survey) centrado no nível de conhecimento e informação dos respondentes sobre o que é agricultura familiar, sobre o aludido sistema e seus respectivos desdobramentos sociais. Constatou-se que há diferenças de percepção segundo a área do conhecimento dos respondentes. Entretanto, há grande convergência no que tange à importância deste sistema para a economia regional e para o desenvolvimento dos territórios.*

Palavras-chave: desenvolvimento regional; PNAE; PAA; representações sociais.

INTRODUCTION

Since the end of the 20th century, research has highlighted the demographic transition that has occurred in Brazil, mostly in the southern states (CAMARANO & ABRAMOVAY, 1999). This transition was characterized by the effects of aging and masculinization in the rural areas (ANJOS & CALDAS, 2005; FROELICH et al., 2011; ANJOS et al, 2014), which threatened the process of succession in many rural establishments, most notably family establishments. This situation must be addressed because family establishments comprise approximately 84.4% of Brazil's establishments, according to the census data (IBGE, 2006). Nonetheless, the land they own corresponds to only

24.3% of the available agricultural area. The last Agricultural Census (2017) eliminated the family/non-family cut in Brazilian agriculture. This hampered an analysis of the evolution of both segments during the inter-census period.

The National Program for Sustainable Family Agriculture (PRONAF), which was created in the latter half of the 1990s, equipped Brazil for the first time in history with a specific policy focused on a sector that had consistently been unable to obtain rural credit and gain the benefits of support and incentive policies. In the decades that followed, a series of programs reinforced this trend in one way or another.

Within this process, the creation of "institutional markets" occurred, which included the

Food Acquisition Program (PAA) and the National School Food Program (PNAE). These programs were market modalities in which exchange networks acquired a special structure that was previously constrained by rules and conventions negotiated by several actors and organizations. The State plays a central role in these programs, especially through public procurement (GRISA, 2009,). International literature mentioned other terms alluding to similar initiatives, such as “*creative procurements*” (MORGAN & SONNINO, 2008), that were put into practice in countries such as Italy and the UK (MORGAN & SONNINO, 2007), as well as in Brazil (OTSUKI, 2011). They are considered the real revolution in the field of public policy (POPPENDIECK, 2011).

The PAA buys agricultural products without a bidding process at reference prices. They cannot pay more or less than the prices in the regional markets. Direct purchases from family agriculture businesses comprise the main modality, and involves buying from producers organized into cooperatives and either formal or informal associations. This is conducted through direct transactions at reference prices established by the PAA Managing Group.

The PNAE is distinct as another Brazilian innovation in the context of food security. This public policy was formally established in the 1950s, and has undergone substantial change in recent years. The change occurred because of a particular legislation (Law No. 11947 of June 16, 2009), which stated that eating at school is a fundamental right alongside public education. At least 30% of the financial resources transferred by the federal government via the National School Development Fund (FNDE) should be highlighted here. These funds are meant for use in making direct purchases of family agricultural products, preferably from local establishments. If the products come from organic agriculture, a premium price is set at an extra 30% of the regional value. Decree No. 8473, which was made on June 22, 2015, provides for the minimum percentage of food to be purchased by the Federal Administration from family farmers and their organizations.

In accordance with this orientation, the Federal University of Pelotas (UFPEL) established a system of preferential food purchases in partnership with family agricultural organizations from Pelotas city and the surrounding area since 2013. This process was carried out via public calls made by the University Support Foundation, with an exemption for the bidding process. Family farmers must be

eligible according to Article 3 of Law nº 11326/2006 (Family Farming Law). Thus, vegetables, fruit, poultry, grains, dairy, and *schmier* (jam) are acquired through the PAA Institutional Purchasing modality. This food is used to prepare meals provided to the UFPEL academic community. However, what do they know about the UFPEL purchasing system? Are the beneficiaries aware of the importance of such a social commitment made by the public sector? Are they aware that it guarantees the successful functioning of this type of market? How do regular visitors to the university restaurant acknowledge family agriculture as a social form of production? These questions motivated this study.

MATERIALS AND METHODS

This study gathered data using a semi-structured questionnaire that contained both open and close-ended questions, including questions on the interviewees' profiles. It focused on aspects related to respondents' level of knowledge and information regarding the institutional purchasing process, as well as social developments in family farming dynamics on a regional level. This survey studied individuals who had their meals at the three university restaurants at UFPEL (RU-UFPEL); two of which were located in downtown Pelotas, and one on the Capão do Leão campus. A total of 603 subjects were interviewed from among approximately 4000 beneficiaries who had their meals (breakfast, lunch, and/or dinner) at these university restaurants.

The study adopted a non-random sampling methodology, according to which the probability that some or all characteristics of the population belong to the sample is unknown (FÁVERO & BELFIORE, 2017). This procedure was adopted to enable the implementation of a study structured around previously defined objectives. Among the various types of non-probabilistic samples, a convenience sample was chosen. Convenience samples are used either when participation is voluntary or when the sample elements are chosen for convenience or simplicity. The main advantage is that this type of survey enables the quick and inexpensive acquisition of information (FÁVERO & BELFIORE, 2017).

This type of methodological strategy is justified by restrictions in the availability of time and material and human resources. Based on experience and good sense, we ensured that all means of guaranteeing confidentiality, impartiality, and precision were employed. We were aware of

the possibility of bias in interviewees' responses. The survey was conducted from September through December 2016. It was carried out on working days, between the hours of 11:30 am and 1:00 pm. Subjects were approached as they left the restaurants. They voluntarily agreed to participate in the interview and answered the questions posed.

Institutional purchasing at UFPel restaurants

The terms of cooperation between UFPel, the Government of the State of Rio Grande do Sul (RS), and the then Ministry of Social Development (MDS) were signed on June 4, 2013. This marked the formal beginning of the PAA Institutional Purchasing modality. A public call was made on September 1, 2014 to preview several stages, which entailed obtaining resources, setting a timetable for the agricultural seasonality in the region, creating menus, enabling projects, performing check-ups, and rendering payment to participating institutions. Rural extension services were crucial for two reasons: the exchange between family farmers and UFPel, and the technical guidance offered to family farmers and the organizations to which they were linked. Of the six rural cooperatives supplying products to UFPel, four received assistance from the Center for Support and Promotion of Agroecology (CAPA), namely the South Ecological Cooperative, the Union Cooperative, the Mixed Cooperative of the Small Farmers of the Southern Region (COOPAR), and the South Family Farmers Cooperative (CAFSUL). Two cooperatives from the official extension (EMATER Pelotas) were also supported. These are the Farmers' Cooperative of Monte Bonito (COOPAMB) and the Rural Cooperative of Arroio do Padre (COOPAB).

Table 1 presents an overview of the meals served at the RU-UFPel units and their beneficiaries.

It was reported that almost 1.2 million meals were served in 2016. In order of importance, lunch is first (62.7%) and was followed by dinner (25.6%). Among those with access to food through student aid programs, the number of non-fellows exceeded the number of fellows.

There is considerable diversity among the purchased products (42), in the cases of both fresh and processed foods (canned vegetables, sweets, organic rice, dairy products, and jams). Table 2 shows the number of resources used in the five public calls made by the RU-UFPel between 2014 and 2017. It was reported that these purchases constituted the direct investment of 3.2 million Brazilian reals in the local economy over the last five years. Moreover, the rules of this system admit payment of a premium price of an extra 30% for organic products. This means that the RU-UFPel favors the advanced purchase of family farmers' goods, and plays a central educational role by advocating a sustainable mode of agriculture. Consequently, it fosters the consumption of food that is free of pesticides and synthetic products.

The creation of institutional markets has been considered a crucial aspect in the emergence of small and new associative structures to meet this demand, along with the strengthening of the existing institutions. The first case comprises COOPAMB and COOPAP. These cooperative units were created to suit the institutional markets. They not only included the RU-UFPel case, but also comprised municipal and state schools seeking to observe Law No. 11947 (2009), thus obeying the minimum percentage of 30% of local family farm purchases. The second case comprises CAFSUL, the South Ecological, the Union, COOPAR, and the Southern Dairy Cooperative (COSULATI). This purchasing system ensures quality and diversity in the supply of products at the three UFPel restaurants. For instance,

Table 1 - Distribution of consumers served by the restaurant (UFPel) according to meal.

Meal type	-----Type of consumer served-----				Total	%
	Food Scholarship	%	Other consumers	%		
Breakfast	29.792	2.5	0	-	29.792	2.5
Supper	109.341	9.2	0	-	109.341	9.2
Lunch	256.056	21.6	485.771	41.0	741.849	62.7
Dinner	147.530	12.5	155.364	13.1	302.906	25.6
Total	542.719	45.8	641.135	54.1	1.183.900	100.0

Source: Field Research at RU-UFPel (2017).

Table 2 - Amount of financial resources applied of RU-UFPel between 2014 and 2017.

Public Edict	Amount (R\$)
001/2014	661.266,68
001/2015	342.010,18
001/2016	890.747,92
002/2016	748.439,08
001/2017	610.060,22
Total	3.252.524,08

Source: Field Research at RU-UFPel (2017).

in Public Call 002/2017, there were 59 fresh fruits, vegetables, and poultry, five types of grains (organic white rice, organic whole rice, carioca beans, black beans, and organic black beans); six kinds of dairy foods (milk drink, milk cream, powdered whole milk, mozzarella cheese, ricotta cheese, and milk jam), and six types of jams. Table 3 shows that in the period 2015-2017, COOPAMB carried out the largest number of operations (35.9% of the total) in terms of hired resources.

Sample diversity and knowledge areas

Before discussing the information gathered through the questionnaires, the essential features of the sample are briefly presented. Table 4 presents the distribution of the interviewees among the three RU-UFPel units, highlighting the effort to guarantee the proportionality and the representativeness of regular visitors. The Agrarian Sciences, and the Biological, Exact, and Earth Science schools are located at the

Capão do Leão campus. The central Pelotas areas focus on Health Sciences, Human, Social, and Applied Social Sciences, Engineering, Linguistics, Languages, and Arts. Distribution between males and females (54.9% and 45.1%, respectively), and the urban or rural origin of the respondents (77.1 and 22.9%, respectively) is highlighted. Table 5 shows the distribution of the interviewees according to age. A rather young profile is observed, since 46.1% of the interviewees were under 21 years, and 82.3% were under 27 years.

For practical reasons, the university staff, teachers, and graduate students were excluded from the analysis of some topics. We took this step because we focused on the undergraduate students' level of knowledge in certain aspects. Table 6 shows the diversity among the interviewees in terms of their knowledge of certain areas. The sample comprised 62 of the 97 undergraduate courses at UFPel.

The importance of familial agriculture and institutional purchasing

When asked if they could define "family agriculture", 73.7% answered in the affirmative. When their answers were analyzed based on the courses in which they were enrolled, the answers indicated some differences as seen in table 7. Those who pursued the Agrarian Sciences constituted a greater proportion of the people who knew what family agriculture was (98.2%). Those pursuing Exact Science and Land (70.5%) were reported to have the lowest level of knowledge. Nevertheless, the proportion is also high across different areas of knowledge.

The second question leading to this study aimed to understand the number of respondents

Table 3 - Amounts of financial resources contracted (R\$) by associative entities participating in the institutional purchases of RU-UFPel between 2015 and 2017.

Cooperative	-----Resources contracted (R\$) according to year-----			Total
	2015	2016	2017	
Cafsul	24.032,00	131.852,24	122.862,67	278.746,91
Coopamb	103.837,87	254.148,35	300.416,30	658.402,52
Coopap	36.022,31	116.340,47	159.148,89	311.511,67
Coopar	8.876,89	22.563,54	21.690,00	53.130,43
Cosulati	2.530,86	8.178,60	0,0	10.709,46
Sul Ecológica	80.456,00	118.963,99	84.419,95	283.839,94
União	37.520,70	81.196,80	120.278,30	238.995,80
Total	293.276,63	733.243,99	808.816,11	1.835.336,73

Source: Field Research at RU-UFPel (2017).

Table 4 - Distribution of respondents according to the UFPel University Restaurant attended.

Restaurant	Number of respondents	Percentage (%)
Campus Capão do Leão	236	39.1
Centro Rua XV Novembro	205	34.0
Centro – Casa do Estudante	162	26.9
Total	603	100.0

Source: Field Research at RU-UFPel (2017).

who were aware that UFPel had adopted the family agriculture institutional purchasing system beginning in 2013. Table 8 shows that the highest proportion of the students who stated that they knew of the UFPel purchasing system came from the Biological Sciences (81.3%), surpassing respondents from the Agrarian Sciences (71.9%). Respondents pursuing Exact and Earth Sciences seemed to be most ignorant, since only slightly over half (52.3%) answered in the affirmative.

The questionnaire also asked about the free indication of words and expressions that the interviewees considered more appropriate in identifying family agriculture. In the responses gathered, the idea of a type of product generated from a certain agricultural approach (organic) that excludes the use of synthetic products (mineral fertilizers and pesticides) was highlighted. Another strong association focused on the nature of the process from the standpoint of the production scale (small-scale production; small producer). It is worth mentioning that a great diversity of terms (both simple and compound) emerged in the free association section of the survey, which led to difficulties in categorization. We chose to analyze

Table 5 - Distribution of respondents according to age group.

Age range (years)	Nº	%
17- 21	278	46.1
22 - 27	218	36.2
28 and more	103	17.1
Missing	4	0.6
Total	603	100.0

Source: Field Research at RU-UFPel (2017).

Table 6 - Distribution of respondents according to knowledge areas.

Knowledge area	frequency	Percentage (%)
Agrarian Sciences	170	33.3
Biological Sciences	77	15.1
Health Sciences	76	14.9
Exact and Earth Sciences	56	11.0
Social Sciences	44	8.6
Applied Social Sciences	42	8.2
Engineering	29	5.7
Linguistics, Letters and Arts	16	3.1
Total	510	100.0

the first word alone because we thought that it was likely the most important of the three words requested from the interviewees. The association that the respondents made with family agriculture brought forth elements that warranted mention, especially in an investigation of this aspect based on their areas of knowledge. Table 9 presents the four most important word categories.

In addition to eliciting the university community's understanding of the singular nature of family agriculture as a social form of production, it was important to understand the subjects' perception of the potential developments of such a preferential purchasing system at the local or regional level. By adapting relevant legislation and ensuring prices and quantities for the purchase of products from the local family agriculture association organizations, UFPel expanded the universe of possibilities for marketing fruit, vegetables, and poultry in a sector that was clearly vulnerable to the interference of other actors. Thus, UFPel plays a role in the economic and social

Table 7 - Distribution of respondents by knowledge area according to their answers when asked about what is family farming.

Knowledge area	%
Agrarian Sciences	98.2
Biological Sciences	93.7
Health Sciences	87.0
Exact and Earth Sciences	70.5
Social Sciences	93.5
Applied Social Sciences	88.1
Engineering	90.8
Linguistics, Letters and Arts	83.9

Source: Field Research at RU-UFPel (2017).

Table 8 - Distribution of respondents according to their answers when asked if they knew of the existence of institutional purchases since 2013 at UFPel.

Knowledge area	%
Agrarian Sciences	71.9
Biological Sciences	81.3
Health Sciences	70.1
Exact and Earth Sciences	52.3
Social Sciences	80.6
Applied Social Sciences	78.6
Engineering	77.9
Linguistics, Letters and Arts	76.8

Source: Field Research at RU-UFPel (2017).

development of the region. As a result of these guarantees, the participating producers of PAA and PNAE made direct investments in family production units, such as the construction of greenhouse production units and expansions of the crop area. Semi-processed goods, sweets, and the canning goods cottage industry were also improved. Further, we investigated the interviewees' stances on the potential of the UFPel institutional purchasing mechanism regarding regional development. Table 10 presents all respondents (undergraduate students and other interviewees) and their answers. Most (93.4%) answered in the affirmative. The remainder was divided between a small portion (3.0%) of respondents who were unable to answer the question, and another (2.3%) segment that took a negative stance.

CONCLUSION

A little over two decades following the creation of PRONAF in 1995, a change occurred in terms of public policies focusing on a sector that contributed to 37.8% of the Gross Value of Brazilian Agriculture, according to the Agricultural Census (IBGE, 2006), as well as a significant (albeit variable) portion of the production supplying food to Brazilian homes. The creation of institutional markets can be seen as part of the macro-program "Zero Hunger," which has been widely considered as the most promising initiative for combating hunger, food, and nutritional insecurity. However, as mentioned in some studies (MIELITZ, 2014; GRISA & PORTO, 2015), the effective reach of the institutional markets is rather limited (4.2%) when compared to the number of family establishments reported in Brazil.

Despite this fact, the Brazilian experience can be assessed quite positively. It can be seen as a reference for similar initiatives to affect other regions, such as sub-Saharan Africa and Latin American countries, in which hunger and food insecurity requires consistent and lasting solutions. This study interviewed regular students at the three UFPel university restaurants and reported variations among the interviewees in terms of their understanding of family agriculture attributes as a social form of production. Nevertheless, there is a strong consensus on the importance of institutional markets as a tool to promote regional economic development. In addition to a number of resources allocated to financing the purchase of agri-food products, such initiatives will definitely be important in advancing innovation and learning in rural areas.

Table 9 - Percentage distribution of words indicated by categories, according to respondents' knowledge areas.

Knowledge area	-----Percentage distribution (%) of words by category-----			
	Organic production	Small scale	Quality	Work organization
Agrarian Sciences	27.0	24.7	10.7	15.4
Biological Sciences	56.4	12.6	6.3	6.3
Health Sciences	37.7	13.0	10.4	9.1
Exact and Earth Sciences	22.8	13.8	6.9	11.5
Social Sciences	32.3	3.2	16.1	12.8
Applied Social Sciences	28.6	21.6	16.7	9.6
Engineering	29.9	15.6	15.6	5.2
Linguistics, Letters and Arts	39.4	5.4	12.6	7.2

Source: Field Research at RU-UFPel (2017).

Table 10 - Respondents' opinion on the potential contribution of UFPEl's institutional procurement to the development of the regional economy.

Is there contribution?	Nº	%
Yes	563	93.4
No	14	2.3
Do not now	18	3.0
Missing	8	1.3
Total	603	100.0

Source: Field Research at RU-UFPel (2017).

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DECLARATION OF CONFLICT OF INTERESTS

The authors declare no conflict of interest. The founding sponsors had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, and in the decision to publish the results.

AUTHORS' CONTRIBUTIONS

The authors contributed equally to the manuscript.

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