



## Understanding the Sustainability Tripod in the Context of Local Markets

### *Comprendiendo la triada de la sostenibilidad en el contexto de los mercados locales*

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#### Abstract

The agri-food model crisis opens space for discussion regarding food in search of more sustainable ways of production and consumption. The local markets can help advance in this direction. Thus, the present article aims to analyze aspects of environmental, social, and economic sustainability in the practices of food product exhibitors in local markets in Canada and Brazil. Qualitative research was carried out at local markets, at Concordia Farmers Market, in the city of Montreal, Canada, and at Mercado de Produção da Agricultura Familiar, in the city of Júlio de Castilhos, Brazil. Data were collected by means of interviews and participant observation and analyzed using content analysis. The results identified aspects related to environmental sustainability (organic and artisanal foods without chemicals and waste reduction), social (local markets generate an opportunity to strengthen relationships between producers and customers, bonds and exchange of information), and economic (appreciation of local products by the development of the region's economy).

**Keywords:** sustainable development, local development, farmers, Canada, Brazil.

#### Resumen

La crisis del modelo agroalimentario abre espacio para el debate en torno a la alimentación que busca formas de producción y consumo más sostenibles, y los mercados locales pueden ayudar a avanzar en esta dirección. Así, el artículo tiene como objetivo analizar aspectos relacionados con la sostenibilidad ambiental, social y económica con expositores de productos alimenticios en mercados locales de Canadá y Brasil. La investigación cualitativa se llevó a cabo en dos mercados locales: el Mercado dos Agricultores de Concórdia, en la ciudad de Montreal, Canadá, y el Mercado de Produção da Agricultura Familiar, en la ciudad de Júlio de Castilhos, Brasil. Los datos fueron recolectados mediante entrevistas y observación participante, y analizados mediante análisis de contenido. Los resultados identificaron aspectos relacionados con la sustentabilidad ambiental (alimentos orgánicos y artesanales sin químicos y reducción de desechos), social (los mercados locales brindan

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oportunidades de acercamiento entre productores y clientes, vínculos e intercambio de información) y económico (valorización de los productos locales a través del desarrollo de la economía de la región).

**Palabras clave:** desarrollo sostenible, desarrollo local, agricultores, Canadá, Brasil.

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## Introduction

In recent decades, the agri-food model crisis, involving the global food production, manufacturing, and distribution systems, opens space for the discussion of new proposals for sustainable production, agroecological products and more direct forms of connection between producer and consumer (Santini and Ghezán, 2022). The discussion regarding food issues is a current topic and must be considered from the perspective of international conflicts, global climate change, economic and health challenges associated with the COVID-19 pandemic, fundamental in this discussion, in order for society to develop in a more sustainable way (von Grebmer *et al.*, 2021). Based on this scenario, the development of the local economy and agriculture can improve food conditions, enhance organic and quality production, in addition to promoting the local economy and developing sustainability, minimizing the harmful effects on the planet (Cvijanović *et al.*, 2020).

Agenda 2030 addresses the need to change production and consumption patterns, ensuring sustainable production and consumption patterns as one of the goals of sustainable development. There is a motivation to consume healthy and quality food, as well as a latent concern with caring for the environment and food safety. In addition, sustainable food consumption attracts the attention of scholars, public policymakers and consumers as well as studies that use local markets as a context of study from various aspects (Pasqualotto and de Menezes, 2021).

Concern for the environment appears as a background for organic production around the world, bringing a great business opportunity (Molinillo *et al.*, 2020). As an example of the importance of food with local spirit, made with locally grown products, it is one of the ten culinary trends, according to NRA 2018 data (Sloan, 2019). Furthermore, the popularity of local products sold by short chains has also increased (Giampietri *et al.*, 2016).

However, society has become mostly urban, with 55% of the population living in cities, retaining disproportionate power in relation to rural areas in terms of political, cultural and economic influence, harboring a context of social inequality and poverty, and consuming an expressive amount of natural resources (Schneider *et al.*, 2022).

From this perspective, spaces that promote the meeting of customers and small local producers emerge, which, in this article, were called local farmers markets, common in countries such as Canada and Brazil, which foster the region's economy (Cvijanović *et al.*, 2020), making the environment more sustainable. Thus, it becomes relevant to understand aspects related to environmental, social and economic sustainability that these local producers employ. In this way, the setting of the present research was in local markets in Montreal (Canada) and Júlio de Castilhos (Brazil). In 2020, according to

Sachs *et al.* (2020), Canada ranked 21st in the Sustainable Development Ranking, while Brazil ranked 53rd, thus showing the existence of more sustainably developed countries than others.

In this sense, the objective of the present study was to analyze aspects of environmental, social, and economic sustainability in the practices of exhibitors of food products at local markets in Canada and Brazil. As sustainability is built over time, the results of this semi-comparative study will enable Canadian and Brazilian producers to exchange experiences and practices. Furthermore, it is observed that environmental, social and economic sustainability is important for the development of the regions where the markets are located (Giampietri *et al.*, 2016) and can contribute not only to a more restricted understanding of these aspects, but also to assist the development of sustainable practices to be used in different contexts.

## Conceptual framework

The literature on sustainability in short food supply chains (SFSC), which supports this study, is presented below.

Studies have drawn attention to the need to change the agri-food model towards a more sustainable one, in order to build more sustainable food markets (Matte and Preiss, 2019). There is an urgent need to make the transition from a conventional food system to a sustainable and highly integrated system, where not only productive and economic solutions are considered, but also social and environmental perspectives from a broader perspective (Barcellos, 2020). Food production and distribution are among the topics of relevance debated in the context of sustainable development, and SFSC have been widely regarded as more sustainable compared to mass food delivery systems (Malak-Rawlikowska *et al.*, 2019), as well as being addressed in the literature (Giampietri *et al.*, 2016; Jarzębowski *et al.*, 2020).

The reduction in the number of actors and the distances along the food chain allows the reconnection between consumers and farmers, contributing to different social/sociocultural, economic, and environmentally sustainable goals (Giampietri *et al.*, 2016). In this sense, the development of direct marketing models, such as local farmers' markets (LFM), is observed, as well as an increase in the popularity of local and organic foods (Cvijanović *et al.*, 2020; Pasqualotto and Sampaio, 2022).

SFSC is considered a local and sustainable food system and follows the concept of sustainability, which is based on three pillars: environmental, social, and economic (Jarzębowski *et al.*, 2020) or triple bottom line, created by John Elkington in the 1990s (Elkington, 1998).

Regarding social aspects, the short food chain plays an important role not only for the consumer and producer, but it also affects public interests (Canfora, 2016). According to Darolt, *et al.* (2016), the consumer seeks products with the “producer’s face”, which emphasizes the local characteristics of the communities, such as traditions, way of life, appreciation of know-how, care for the landscape, ecological and period products,

characteristics that are present in the short circuits. This is the brand that consumers are looking for, in an advance in terms of quality, creating new social relationships, new values, and rescuing the autonomy of farmers (Darolt *et al.*, 2016). A key feature of short supply chains, pointed out by Marsden *et al.* (2000), is the ability to resocialize, thus, allowing consumers to make value judgments regarding food, based on their own knowledge, experience, or perceived images.

In addition to the flow of information and knowledge between supply chain participants, value is created for customers and society, greater integration between customer and producer is generated (Jarzębowski *et al.*, 2020), creating close links (Pasqualotto and de Menezes, 2021). Short cycles enable a more direct relationship between consumers and producers (Galli and Brunori, 2013).

The social interaction that takes place within these markets goes beyond the economic transaction, further increasing the idea and interest in the local producer and community support through the values associated with the farmers' market as a socially important experience (Feagan *et al.*, 2004). The short circuit promotes appreciation of the profession and recognition of the producer as an ecological farmer, as well as the organization of producers for sale in network marketing circuits (product exchange and product diversification) (Darolt *et al.*, 2016), also enabling the reduction of social inequality for the participants in the supply chain (Jarzębowski *et al.*, 2020).

According to Galli and Brunori (2013), the social sustainability of SFSC refers to their ability to contribute to equity or justice between actors in the food chain, food security, and the viability of local communities, being rooted in relationships of trust, fairness, personal, solidarity and shared values between consumers and producers.

The economic sustainability of SFSC addresses issues such as competitiveness, economic viability of the food chain and its actors, efficient use and contribution of resources (including human resources), as well as contributions to communities in terms of generating employment and income (Galli and Brunori, 2013). Short circuits generate local employment, support synergy with other sectors, value and preserve small farms, as well as reduce economic uncertainties (Jarzębowski *et al.*, 2020). SFSC help the circulation of community income and create new jobs (Schmid *et al.*, 2014). According to Galli and Brunori (2013) and Schmid *et al.* (2014), in certain types of SFSC, the engaged consumer has a long-term commitment, which reduces the economic uncertainty related to variations in production and sales volumes. In addition, it provides the producer with work autonomy and greater financial independence (by receiving most of the money in a short term and retaining consumers) and reduces the risk of commercialization by the possibility of combining sales channels (Darolt *et al.*, 2016). Furthermore, it reduces dependence on powerful actors in the chain, and can contribute to the revitalization of the local economy (Galli and Brunori, 2013). Schmid *et al.* (2014) also mention SFSC being able to contribute to revitalizing local communities.

By promoting local production and product distribution through short chains, LFM support the local food system, and contribute to many economic sustainability goals, such as encouraging economic diversification of producers (Galli and Brunori, 2013;

Darolt *et al.*, 2016), and stimulating local economies (Jarzębowski *et al.*, 2020; Silva and Barbosa, 2020; Pasqualotto and de Menezes, 2021).

In relation to environmentally sustainable objectives, the simple trip from the consumers of organic food to the farmers market is a way of materializing an abstract desire to contribute to the search for alternatives to agro-industrial production and responsibility in relation to impacting social and environmental aspects of their consumption choices. Short supply chains can be seen as a means of restructuring the sector, by means of the development of sustainable agriculture methods (Jarzębowski *et al.*, 2020). Darolt *et al.* (2016) highlight that purchasing products by short circuits reduces the environmental impact by reducing packaging and lowering energy expenditure with transport, corroborating with Galli and Brunori (2013) and Schmid *et al.* (2014).

Many SFSC adopt less polluting production methods, such as organic agriculture (Schmid *et al.*, 2014). In this sense, the environmental dimension is supported by production using ecological methods, less energy use, lower carbon and greenhouse gas emissions, and reduced food waste (Jarzębowski *et al.*, 2020). Consumers believe that short circuits provide education for consumption, in order to reduce the use of packaging and recycling materials (Darolt *et al.*, 2016). Short supply chains have a positive impact with obvious environmental benefits when compared to long chains (Canfora, 2016). An example of this is that a number of SFSC use less packaging than supermarkets and, consequently, use fewer resources (Galli and Brunori, 2013).

## Methodology

The present research can be classified as an exploratory study, which promotes insights and understanding of the research field, as well as a study of qualitative nature, carried out in local markets in Canada and Brazil.

The selection of cases in countries with such different agri-food systems occurred based on the economic, social, and cultural strategy of these countries, before and especially after the global crisis caused by COVID-19. Despite the differences between production volume and territorial space, agri-food scenarios are connected. In these countries, sustainable strategies for food production, distribution, and consumption have similarities. Concern regarding sustainability issues is present in both countries and the local markets are positioned as channels between producers and consumers, and as a way to foster the local economy. Despite the climatic and socioeconomic differences, Brazil and Canada are continental countries with similar challenges with regard to food production, agro-industrial products, and sustainability of agricultural systems (Embrapa, 2020).

In this sense, the local markets from Canada and Brazil were defined as units of analysis for this study, considered by the researchers, relevant cases and with common dynamics. The choice occurred by convenience, enabling the identification of approximations between the two realities regarding the tripod of sustainability. Then, the local markets selected for this study were: in Canada, the Concordia Farmers Market (CFM), located in the city of Montreal; and, in Brazil, the Mercado de Produção da Agricultura Familiar (FEPRAF), located in the city of Júlio de Castilhos (RS).

The criteria used to select the exhibitors at CFM and FEPRAF was that they should sell food products. When finding similar patterns in the data, theoretical saturation was achieved, and the interviews were interrupted. This way, seven respondents from CFM and three respondents from FEPRAF were interviewed, as shown in Table 1.

For data collection, interviews and participant observation were carried out. The interviews were carried out at both markets. At CFM, individual interviews were carried out with the exhibitors personally, and at FEPRAF, a focus group was carried out online. All interviews were recorded with prior consent of the exhibitors and prior clarification about the research and interviews. The semi-structured script was elaborated based on the study of Jarzębowski *et al.* (2020) and validated by an expert professor on the subject.

For participant observation, a specific script was created to collect data, aiming at observing aspects directly related to the objective of the work. Such information was recorded by means of notes and photographic records. This data collection technique relied on the researcher's interaction with the exhibitors during the observation process.

After being collected, the data were analyzed from the perspective of theoretical foundations, based on the three categories of the study by Jarzębowski *et al.* (2020), environmental, social, and economic sustainability, following a descriptive pattern, according to the proposed objective. The collected data were analyzed using the deductive Content Analysis technique. From the interpretation of the data, they were confronted with the literature, in order to establish nomological validity. Finally, a summary of the main results of the study was prepared. Table 1 summarizes the methodological procedure adopted in this study.

## **Results and discussion**

In this section, the context of each country and the characterization of each case (market) will be described, highlighting the socioeconomic and cultural conditions. In addition, the data collected through interviews and participant observation will be presented from the sustainability tripod.

### ***Contextualization of local market***

In Canada, since the oil and food crisis in the 1970s, a food policy agenda that involves the adoption of practices related to sustainability, renewable energy, and the use of new technologies has been built. The demand for organic food has been growing for some years according to Canadian statistics, in which retail sales of organic products increased by 57% between 2015 and 2020. From the COVID-19 pandemic, questions and concerns on the resilience of the food system and its impacts on farmers and consumers could be observed.

As the fifth largest global exporter of agricultural and food products, Canada has set goals that signal a fundamental change in the country's food and agricultural policy, such as: reducing the use of pesticides, fertilizers, and antimicrobials, and expanding its organic production to 25% by 2030. In this way, the production of sustainable food and

the commercialization that brings the producer and the consumer closer to each other represent contributions to the Canadian food system.

**Table 1.** Systematization of the procedures for data collection

*Tabla 1. Sistematización de los procedimientos de recopilación de datos*

<b>Research Objective:</b> To analyze aspects related to environmental, social, and economic sustainability in the practices of food product exhibitors at local markets in Canada and Brazil		
<b>STEPS</b>	<b>PROCEDURES</b>	
<b>Units of analysis</b>	Concordia Farmers Market (CFM)	Agrarian Reform and Family Agriculture Production Market (FEPRAF)
<b>Participants</b>	Seven exhibitors who sell fruit and vegetables, chocolate, canned fermented vegetables, tererê herb and mate tea, herbal teas, kombucha, and cookies.  Interviewees 1, 2, 3, 4, 5, 6, and 7.	Three exhibitors who sell bread, cakes, cookies, jellies, assorted fruit sweets, fresh fruits, vegetables, spices, and fish.  Interviewees 8, 9 and 10.
<b>Data collection</b>	Individual face-to-face interviews and participant observation.	Online focus group and participant observation.
<b>Data recording</b>	Recorded by the smartphone, notes, and photographs.	Recorded by the zoom meeting communication software, notes, and photographs.
<b>Data treatment</b>	Transcripts of interviews and material selection objective and systematically.	
<b>Data analysis</b>	Descriptive standard.  Categories: Environmental, social, and economic sustainability.  Content analysis.	

Source: own elaboration. Fuente: elaboración propia.

In this context, farmers' markets can establish sociability links with consumers, creating an environment of cooperation for healthy consumption of food, thus, promoting the health of the rural and urban populations. In Canada, the Concordia Farmers Market (CFM), located in the city of Montreal, was selected for this research. It is the only urban market founded by students, located in the city center, in the entrance hall of Concordia University. The market mainly serves the university's young public and employees, but it is also open to the general public. The place in which the market is located gives people access to the subway. Therefore, the market's circulation and visitation is quite significant. Since 2014, CFM has been working with small-scale producers and local artisans

who prioritize sustainability to bring healthy, affordable, and locally produced food and products to the community. The fact that these products meet sustainable practices was the main reason for choosing this market for the study.

Of 14 exhibitors that were in CFM, seven were selling food products, therefore participating in the study, as shown in Table 1. The other exhibitors at CFM were selling handicrafts and handmade products; therefore, they were not part of this study. Figure 1 presents some exhibitors from CFM.

**Figure 1.** CFM exhibitors

*Figura 1. Exponentes en CFM*



Source: authors' photographs. Fuente: fotografía de autoras.

Brazil is considered the largest soy producer in the world and issues such as family farming and rural exodus interfere in the relationship between rural and urban areas. The 2017 Agricultural Census (IBGE) records that 77% of agricultural establishments in Brazil are classified as family farming, however, these properties occupy only 23% of the entire area destined for agriculture.

In this context, considering the importance of agricultural production in the country, the Mercado de Produção da Agricultura Familiar (FEPRAF) stands out, created in 2013, based on a project by the National Institute of Colonisation and Agrarian Reform (INCRA). Located in Júlio de Castilhos, in the central region of the State of Rio Grande do Sul, one of the largest agricultural regions in Brazil. Until March 2020, the market exhibition took place every two weeks at Instituto Federal Farroupilha (IFFAR) campus, and weekly at Praça Manoel Alvarenga, in the center of the city. Since the COVID-19 pandemic, only the exhibition at Praça Manoel Alvarenga continued to take place. In addition to the support of IFFAR, the market also counts on the support of the Technical Assistance and Rural Extension Company of the State of Rio Grande do Sul (EMATER/RS), and the City Hall, through the Secretary of Agriculture.

At FEPRAF, all exhibitors sell food products. Of the four exhibitors that currently participate in the market, three were interviewed. Figure 2 presents pictures from FEPRAF.

### ***Environmental sustainability***

Regarding environmental sustainability, different sustainable actions adopted by food product exhibitors at the markets were identified in the participant observation it was possible to identify the concern on the part of both CFM's customers and exhibitors regarding the development of sustainable practices, in line with Giampietri *et al.* (2016). At FEPRAF, on the other hand, this concern with sustainable practices was only identified in the exhibitors' routine, but not in the consumers.

In the interviews, all exhibitors presented sustainable practices adopted in their processes or products at both markets. The fact that their products are organic, and do not use, or use a reduced quantity of pesticides positively contributes to environmental sustainability, since they represent sustainable farming methods (Jarzębowski *et al.*, 2020). In this sense, Interviewee 6 comments that they mainly use organic local fruits in the composition of their products, and adds: "Our production is eco-friendly [...] we have sustainability values in the company." According to Interviewee 2, their process is controlled and audited to ensure that the product is 100% organic. At FEPRAF, processes are also controlled.

**Figure 2.** FEPRAF

*Figura 2. FEPRAF*



Source: exhibitor's photography. Fuente: foto del exposente.

Interviewee 4's company offers recyclable bags. Interviewee 6's company uses glass bottles that can be sold back to the store for five Canadian cents to be recycled. Such bottles were identified in the participant observation: they are beautiful bottles and can even be reused for other purposes. It was also possible to observe Interviewee 3's packages, which are also made of glass and can be reused or recycled. Interviewee 5 comments that they use paper packaging instead of plastic and, for offering tea tasting at the market, they use recyclable cups and metal balls to infuse the tea. In the participant observation at CFM, it was possible to verify such sustainable actions mentioned by Interviewee 5. In line with these observations, Darolt *et al.* (2016) comment that consumers believe that short circuits provide education for consumption, allowing a reduction in the use of packaging and an increase in the recycling of materials. Also, in the study by Pasqualotto *et al.* (2022) it is pointed out that glass packaging is separated at the time of disposal for recycling.

Interviewee 4's company tries to reduce waste as much as possible, and according to Interviewee 3, the company does not generate any loss, since all vegetable waste goes to composting, as it is done by FEPRAF interviewees (Pasqualotto *et al.*, 2022).

“The company's mission is to reduce food waste”, indicates Interviewee 7, making cookies from fruit and vegetable waste such as banana peel, carrot peel, and orange juice pulp (Jarzębowski *et al.*, 2020). At FEPRAF, the use of fruit and vegetable waste as raw material for jams and jellies was also observed. Such actions are in line with studies by Sijtsema *et al.* (2020), when addressing new products made from foods that would otherwise be discarded, and by Pasqualotto *et al.* (2022), when interviewees mentioned using vegetable stalks and leaves in the meal's preparation.

The cookies packaging, according to Interviewee 7, is made of recyclable paper with a transparent front opening (it looks like plastic) made of vegetable oil, which goes into composting when discarded. The packaging was visualized in the participant observation and the expressions “recyclable packaging” and “fresh product” are written on it. In addition, Interviewee 7 comments that the company uses eco-friendly cleaning products (which do not harm the environment) to clean the factory. Environmental awareness serves as a motivating factor for consumers to buy their food in LFM, providing them with a sense of co-responsibility towards sustainable agricultural management (Giampietri *et al.*, 2016). According to exhibitors interviewed at both markets, CFM and FEPRAF are types of markets that can encourage people to buy organic and artisanal foods. Interviewee 1 comments that if people taste the product and like it, they will buy it again. Interviewee 4 notices people arriving to buy bringing their ecological bags, showing concern for environmental sustainability. Environmental sustainability advocates increasingly pursue their goals through the promotion of so-called green products, such as organic products, whose popularity has increased significantly in recent decades (Cvijanović *et al.*, 2020).

Finally, it was possible to verify that CFM respondents believe that their customers understand the importance of environmental sustainability. “Customers ask if the products are really organic and they want to know about the raw material, if it is organic” (Interviewee 2). “People ask if it is environmentally sustainable” (Interviewee 4). Interviewee 5 mentions that customers never ask for plastic bags, they prefer paper and recyclable packaging. Interviewee 6 also comments that his customers prefer

glass packaging. At FEPRAF, customers also question whether the products and raw materials are organic and artisanal. However, FEPRAF's customers do not understand the importance of environmental sustainability, which gives the exhibitors the role to multiply this knowledge.

### ***Economic sustainability***

In the participant observation, it was possible to identify CFM and FEPRAF exhibitors and customers' attention and care in relation to the development of the local economy, in line with Galli and Brunori (2013) and Giampietri *et al.* (2016). According to Interviewee 4, their products' flavors are all local and they try to use as many local ingredients as possible, thus collaborating with the regional economy, as highlighted by Giampietri *et al.* (2016). Interviewee 6 adds that they use most local organic fruits in the composition of their products. At FEPRAF, exhibitors corroborate this idea, consuming seasonal products and favoring the use of local products such as fruits and vegetables, as indicated by Darolt *et al.* (2016). Keeping vegetables canned avoids the need to import them from other countries in the winter period (Interviewee 3). It's a way to stock up on the region's vegetables for winter. This statement is in line with Giampietri *et al.* (2016), mentioning that SFSC contributes to preserving economic activities in areas with climatic and geographical restrictions (for example, maintaining food production and processing).

It was unanimous among the interviewees that this type of market can encourage people to buy local food. "Most of the time customers ask if it is local", indicates Interviewee 3, in line with the idea that SFSC contributes to preserving the culture and identity of these places (Giampietri *et al.*, 2016). One of the main motivations of clients described in the study by Feagan *et al.* (2004) was to express support for local farmers and locally grown food. "Demand has increased [...] customers ask about sustainability. Markets like CFM encourage people to be concern on what they are eating and consuming, and what they are buying. Customers like the fact that they are local" (Interviewee 5). In the participant observation it was possible to identify the pride on the part of CFM and FEPRAF exhibitors, indicating that their products are locally produced or that they have only local ingredients. Traditionally, the region of Quebec, where Montreal is located, is loyal to its origins and culture. For example, it is the only region of Canada where the official language is still French, due to the French colonization. In the interviews carried out at CFM, this observation was confirmed by different exhibitors: "We buy local vegetables [...] everything local" (Interviewee 3); "Our products are produced locally [...] organic and local raw material" (Interviewee 6). In the participant observation at CFM, it was possible to identify the information of "local and responsible product" on the packaging. This context is in line with the contributions of the SFSC in preserving local culture and identity (Giampietri *et al.*, 2016).

Finally, the special promotions and discounts offered at CFM are appreciated by consumers. Interviewee 4 offers around 20% off on the purchase of two packages of their product and Interviewee 5 offers a discount on the purchase of three packages of their product. At FEPRAF, consumers perceive that the prices offered at the market are better compared to other points of sale, corroborating Feagan *et al.* (2004)'s indication that one

of the reasons for shopping at a farmers' market is the perception that their product is cheaper than what can be bought elsewhere.

### ***Social sustainability***

In terms of social sustainability, CFM and FEPRAF identified the possibility of maintaining a closer relationship between customer and exhibitor, and communication and information exchange. "The connection between customer and producer is important, to know the history of the products, can allow the conversation between exhibitors and customers" (Interviewee 1). The exchange of ideas between the people at the market was pointed out by Interviewee 2. Interviewee 5 chose to sell at small markets, such as CFM, because it allows developing a good relationship with customers. A number of authors are aligned with these observations. According to Jarzębowski *et al.* (2020), one of the great benefits of the short chain is the strong connection and integration between producer and consumer. For Galli and Brunori (2013), short cycles enable a resumption of a direct relationship between consumers and producers, as well as good communication between consumers and producers. The ability to encourage dialogue between farmers and consumers is a characteristic of LFM, pointed out by Giampietri *et al.* (2016).

Markets, such as CFM and FEPRAF, enable sharing information about the product with customers, telling people about the product and its benefits, thus, it can form a positive opinion about the product, mentioned Interviewee 6 (Giampietri *et al.*, 2016). Through the use of the participant observation technique, and listening to conversations between exhibitors and customers of CFM and FEPRAF, it is possible to identify the exchange of information about how, where and by whom food is produced.

By reducing the number of actors and distances along the chain, these alternative food systems promote the reconnection between farmers and consumers and contribute to different social, economic, and environmentally sustainable goals (Giampietri *et al.*, 2016). The participant observation identified friendly behavior between exhibitors and their customers at CFM and FEPRAF. It was possible to observe CFM customers meeting the exhibitors with joy, commenting on their appreciation for the product they purchased and that they came to buy again. The same happened at FEPRAF, where the satisfaction that customers show in attending and consuming the market's products was identified. There were several long conversations between customers and exhibitors from both markets, they talked about personal matters, which demonstrates a very close relationship. It was possible to recognize, through the participant observation, a long conversation between Interviewee 5 and a frequent client. Interviewee 5 offers tea to the customers as they share a close relationship built in the market environment.

In this context, in the study by Feagan *et al.* (2004) it is identified that the social interaction of a marketplace is an important value beyond the economic transaction, and further increases the idea and interest in the local producer and community support through the values associated with the farmers' market as an experience socially important and satisfying. Even Interviewee 7, exhibiting for the first time at the market, identified that the other exhibitors already have a bond with customers. For Interviewee 1, exhibiting at CFM is a good opportunity to talk to customers and people who visit the market. In this

sense, one of the positive impacts on the SFSC identified by Jarzębowski *et al.* (2020) was the promotion of a more direct relationship between producer and consumer. Along the same lines, the study by Darolt *et al.* (2016) presents as opportunities in short marketing circuits, the link between producer and consumer through direct contact, and Marsden *et al.* (2000) and Darolt *et al.* (2016) deal with socialization at markets.

The possibility of testing the products at both markets was pointed out as a positive aspect by the interviewees. “People taste the products and like it”, says Interviewee 3. “It is a good opportunity for people to try teas before buying” (Interviewee 5). The participant observation allowed us to visualize the thermos bottles containing the teas of various flavors sold by Interviewee 5, which are offered to customers when tasting the product.

Figure 3 summarizes the study considering environmental, social, and economic sustainability aspects. This figure presents convergence and divergence points between the markets in each dimension of sustainability.

In the environmental dimension, Figure 3 shows that there are convergent points in both markets, as organic products, and not using pesticides or having a minimum use, waste reduction, using of paper packaging, separating vegetable waste to composting, using of fruits and vegetables as raw material, the markets encourage people to buy organic and artisanal products. Concerning the economic dimension, the convergent point presented on figure 3 are related to the flavors of the products which are local and have as many local ingredients as possible, customers like the fact that the products are local, the exhibitors are proud to sell local products or have local ingredients, both markets encourage people to buy local food. Finally, it is possible to observe in figure 3 a total convergence between CCF and FEPRAF.

Although there were divergent points identified in the study results, no diametrically opposed conditions were found in the local markets analyzed. It is clear in the study that regardless of the different context between Brazil and Canada, the theoretical framework reflects the reality found in both countries. This research can be considered a semi-comparative case study.

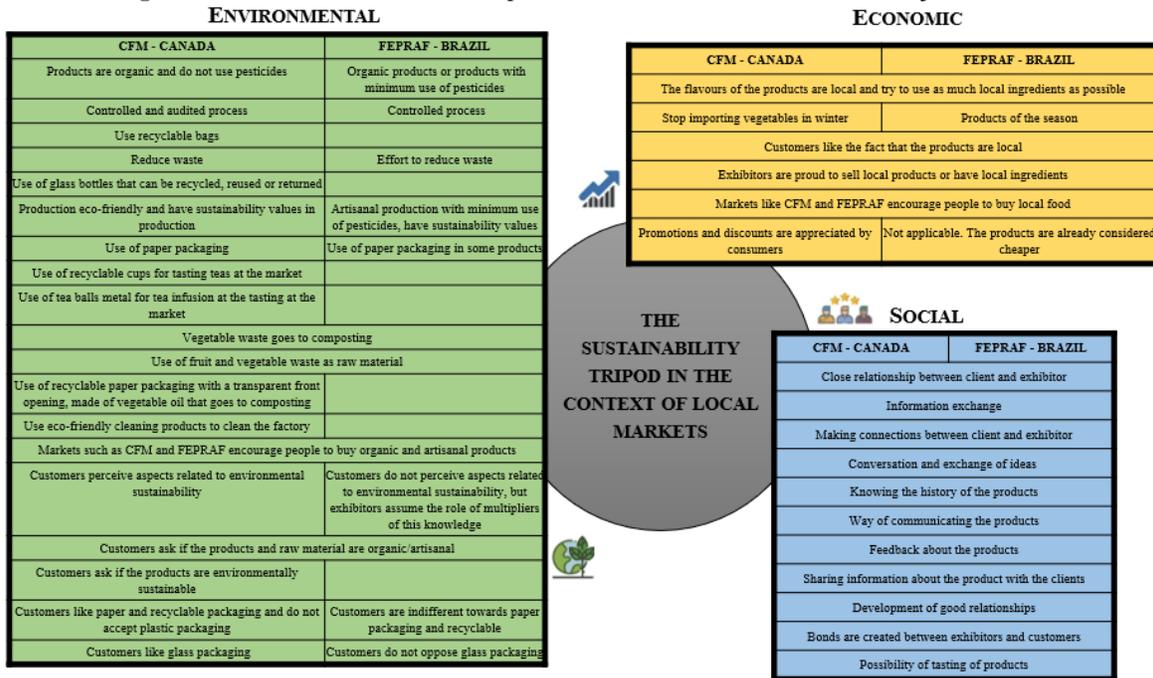
## Conclusions

As the conclusion of the study, a series of aspects related to environmental, social, and economic sustainability were identified with the exhibitors of food products in local markets, in the city of Montreal in Canada and in the city of Júlio de Castilhos (RS) in Brazil.

Regarding environmental sustainability, a series of sustainable actions adopted by the exhibitors of the analyzed markets were identified. The action that stood out the most was: the production of organic and artisanal foods without the use of chemicals and waste reduction (Giampietri *et al.*, 2016; Jarzębowski *et al.*, 2020). Also, the use of packaging that does not harm the environment was a practice identified only by the market in Canada (Sijtsema *et al.*, 2020); however, Brazilian market exhibitors are aware of this practice and assume that they could carry it out by also acting as disseminators.

**Figure 3.** Summary of study regarding aspects of environmental, social, and economic sustainability

*Figura 3. Resumen del estudio sobre aspectos de sostenibilidad ambiental, social y económica*



Source: own elaboration. Fuente: elaboración propia.

Social sustainability was identified among the exhibitors of both markets as an opportunity to strengthen relationships between producers and customers, create bonds, talk with customers about the products and exchange information about how, where, and by whom the food is produced (Feagan *et al.*, 2004; Giampietri *et al.*, 2016; Jarzębowski *et al.*, 2020).

Concerning economic sustainability, the study showed that CFM and FEPRAF customers like and value the fact that the products sold at these markets are local. Thus, exhibitors are concerned with offering local products or having local ingredients in their products (Giampietri *et al.*, 2016), developing the region's economy (Silva and Barbosa, 2020), and supporting local initiatives (Jarzębowski *et al.*, 2020). It was observed at CFM that the special promotions offered by exhibitors pleased consumers. At FEPRAF, consumers perceive that the prices offered at the market are better in relation to other sale points (Feagan *et al.*, 2004).

Finally, the study points out that the use of local markets can be good for the sustainable development of the region, also for the establishment of sociocultural relationships and for a more appropriate form of consumption that promotes social and economic well-being. This study contributes to the development of environmental, social and economic sustainability of the analyzed regions, contributing to a greater synergy between producer and consumer, to the development of the local economy and to the understanding of those involved in the short chain. The results, if shared with market managers and producers, will be useful for the development of the same and other markets.

In qualitative research, the subjectivity of the researcher and those being studied become part of the research process, which can be considered a limitation of the present study. In addition, the geographic delimitation of two specific cities, not representing the entire countries. Therefore, future studies could be carried out quantitatively, contemplating a representative sample of exhibitors and consumers from a greater number of markets.

The study is relevant because it is characterized as a work that explores, analyses and describes a scenario that demands to be discussed. In addition, it contributes to the body of knowledge on the subject that, in addition to other works, can be used to build an understanding of markets as spaces for learning and knowledge exchanges regarding aspects that deal with the sustainability tripod.

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