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DIGITAL ORGANIC FOOD HUB ON PORTO ALEGRE - BRAZIL

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Abstract: This article was developed thinking about to mounting a preliminary database, development, and transposition of researched data in relation to the economic agents denominated food hubs that commercialize organic vegetables in the metropolitan region of Porto Alegre (RS) through digital media, such as websites, marketplaces, social networks and instant messaging applications. For the purposes of building an initial database, the formation and functioning process of this market will be analyzed, in contrast to the latest movements and expressions that give rise to a new way of looking at food and lifestyle. Understanding thus, that the performance of these agents is mixed in the diegesis of the organic commercialization markets in a unique way of expression situated in its time, considering the social crisis of the present that presents itself in the 21st century. Because it is through all those new technologies, access, and globalization, it is necessary to reinvent and readjust to the new social and economic conjunctions that present themselves. Therefore, to elucidate these analyzes of this type of e-commerce and its relationship in the marketing of organic products, we resorted to an analysis thinking in a perspective of the distribution chains as a methodological guide to evaluate the way in which this trade operates. So, we concluded some relevant aspects to maintain and good work of this kind of business as: Local and fresh products, seasonality, products direct from the producer, fair trade and price, presence of cooperatives and associations and selling health and organic food.
Keywords: E-commerce; short chain; Distribution chains; Slow food; Fairtrade.

INTRODUCTION

This article proposes to investigate the market dynamics of buying and selling organic products in the city of Porto Alegre and surroundings over the internet in "food hubs" . This market has been growing rapidly in recent decades and has peaked because of the spread of Covid-19. The e-commerce type of trade was originally based on industrialized products that were produced through global supply chains, but over time it expanded to new products, including food and perishables. To form the food hubs, who operate In this organic online market, the links, and relationships between those who sell, and buy is very dynamic and fluid and the bounds are fundamental to success. One of the advantages of this channel is that the cost of using the platform itself is free, as it is paid for through advertisements or in some cases some fee of the sales.

The growing E-commerce now covers food, using supermarket delivery applications, shopping websites, etc. This has also spread to the realm of organic food, including items with a shorter shelf life, in this case, vegetables that are more perishable and locally produced (Yusra, 2020). This is the result of an increasing interest in the production of organic and fresh food, which has become a common feature on the agenda of several initiatives and areas of discussions (Turk, 2017). These discussions tend to revolve around finding ways to connect producers and consumers, to rediscover rural aspects and food, by making consumption more "local" (SEYFANG, 2008).

The search for healthy and safe food is part of the growing concern for the environment that focuses on agriculture and food consumption (especially regarding waste), and which is also linked to some of the ideas currently being discussed in academia, which have resulted in new courses that are linked to such issues as gastronomy, food engineering and new approaches to traditional studies such as the study of short supply chains and new market formats.One of the growing formats are the online food hubs, who according to

(Felicetti, 2014) integrate the producers and consumers, taking care of logistics, sales and relationships, they can be formed by a third party or integrated by farmers, consumers and other producers. They in some cases can open new markets, bringin the products to new consumers or enabling farmers to access markets.

If the world is turning to a more healthy and organic food, In Brazil "you can also see a trend in favor of this in the Brazilian consumer market – probably the largest in Latin America – which is driven by a middle class that wants healthier food". (LIMA, *et al*, 2019, p. 30). The growth of the organic food market is driven by concerns to do with environmental issues, safety and the appropriate amount that should be produced and consumed, based on agricultural and food production models, as well as the increase in production of these products, also according to Lima et al (2019, p. 27), the organic farms have increased by 19% each year on average between 2010 and 2018, and the number of organic producers registered with MAPA (Agriculture Ministry) in the last seven years has increased by almost 17% each year on average.

Much of the demand of these new products are impulsed by values and needs who are in trending topics in media, universities and public politics. But this trend did not spread spontaneously in a simple nuclear way. Much of the demand is the result of it being championed by various movements and organizations. These entities have different approaches. They have different points of view on the food and its cultural, nutritional, and social importance and on the impact our choice of consumption has on our health and the environment. Some movements may be more focused on agroecology and sustainable agriculture, traditional cooking, the recurring problems with obesity and empty calories, other problems relating to the supply of food or the survival of farmers in the countryside. To provide some detail for the debate, we will mention some and their main areas of interest and activities later in this article.

Therefore, it is important to analyze what are the possible motivations and inducements; whether due to traditional product factors (price, availability, convenience, etc.), or due to more specific reasons or values. As a result, it is important to understand these factors, both from the traditional point of view of the company, but also the importance of "diverging" and "converging" aspects that affect this food hubs that sell organic products and the tension between traditional retail and the impact of other issues for the consumer, who has new drivers, concerns, and values.

SHORT SUPPLY CHAINS AND NEW SOCIAL ORGANIZATIONS

The management of organic trade in food hubs depends on a series of factors that range from: the availability of rural producers who are engaged in such production, to a consumer public that appreciates the value of this type of initiative - products and services in a complex organization that are not normally part of a linear production chain. However, the new "green wave" has found fertile ground in established traditional farmers, where it has helped to develop effective new production systems to take advantage of this niche. Sustainability has become a central theme. It can work in different ways, as it does not necessarily have, according to Aerni (2008), a definitive concept. It can include related themes such as short supply chains, and is often used as a principle organizational model, linked to sustainability in urban and vertical agriculture and the agroecological production of small producers, which is increasingly used in studies on agribusiness. This new organization, called "Food Hub" in this article, generates not just linear web chains, where products, knowledge and interactions between individuals and organizations take place, it also leads to the consolidation of these production systems.

The term "Food Hubs", which can sometimes be found as "Regional Food Hubs" presents concepts with some variation, however, it usually ends up being a delimiter and "centralizer of products, services and information" including "social aggregation", linked to the distribution of locally produced products through short chains. According to the report of "California Network of regional food hubs" (2010), the term is an integrator of distribution systems that "coordinates" produces, stocks, processes, markets and distributes regionally products, and may also cover additional activities related to marketing, rural tourism, production, gastronomy, among others. Therefore, Felicetti (2014) considers the issue of "regional" very importance, the search for sustainability, engaged regional actors, the generation and participation in integrated food systems, which generates a differentiation in relation to global marketplaces and other aggregators of chains that eventually use the same nomenclature. According to Rogers (2013), they contribute to expanding access to food, especially fresh food, taking advantage of modern tools to make the distribution process more efficient, with online ordering, collection points and delivery routes being at the same time convenient, but focused on efficiency.

Within the field of sustainability there is a diversification of theories with issues like study of short production chains and local consumption, we have a multitude of different ideas that can conflict with each other. This is generally due to concerns about greenhouse gas emissions or energy efficiency, which might suggest some negative social aspects or indirect environmental damage in the medium or long term, and which cause these to be treated as "uncertain choices". According to Winter (2003), when local consumption is part of the culture it creates deep-seated values about the world, which creates a form of cooperation between producers and consumers, as part of their idea of community. While other authors, such as Blake (2010), state that it is normal for larger players to get involved in this market, attracted by the niche market and being able to attribute 'local' to greater efficiency, a low carbon footprint and less waste than others with greater food mileage and he argues that it is normal for small producers and establishments to become integrated into larger networks.

One of the best guiding concepts, therefore, is that relating to Information Technology and the advent of the online and Communication era. This is an example of a short production chain because, as Schneider and Gazolla (2016, p.12) attempted, "the definition of short production chains relates to the central aspect of economies of proximity and the scope of which refers to the importance of geography and the interaction between the physical location and the economic activity". But the proximity is also related to awareness how are a key point to build sustainable relations and make news chains.

In relation to competition, according, we have Montanari (2007) as referential, which short chains are an alternative way of reducing the cost of transactions and "adding value to products" through certification / origin or even reputation. In general, short chain strategies try to use proximity to achieve recognition, to be seen as high quality and to be able to apply a premium price, while also reducing the costs involved in the process, this became evident in some research like (Corsi *et all* 2022) where the proximity and relation build between farmers and consumers a key competitive factor. To be enabled to be more competitive, the short chain must contribute something different, other than being just a short chain or part of an association, it must contribute to the value chain

The central factor for the existence of a short chain, according to Marsden et al. (2000), is not geographic proximity, but information, which is a feeling of "a mutual awareness of the situation among those participating in the chain". This information can be publicized in various ways, through direct contact, labeling, reputation, or other media. This information transmission is the main way to characterize types of short chains. According to him, there are basically three types of short chains: face to face, proximity and expanded. The short chain can be more related to geographic distance, normally in localist strategy or guided by mutual knowledge and few intermediaries, in the more extended ones.

The face-to-face short chain is characterized by direct contact between the consumer and the producer without intermediaries. In this type, physical contact between the parties is assumed, in this modality the exchange of information would be carried out on the spot, reducing the possibility of noise in the relationships and increasing the speed of exchange. We can exemplify the purchases that are made directly on the property, fairs and producer stores.

Proximity, on the other hand, is inherently characterized by the existence of up to one intermediary or none. In this, there is no direct contact between producer and consumer, although there may have been at one time or another indirectly (letter, e-mail, etc.). Proximity in this case is not necessarily the geographical issue (distance), but information (awareness) with few intermediaries. This information goes beyond mere packaging, and usually involves collective knowledge of that product, producer, or region.

Additionally, we have another type of short chain, the so-called expanded chain, which can be considered geographically distant, whose consumer who is purchasing that product consciously perceives the way in which it was produced, thinks about its production process and has confidence in consuming it. An example of this type of short chain are products with a certificate of origin, which have difficulties in their cultural proof, and also with an indication of origin, in which the region is recognized for the production of something with tradition and consumer recognition, these products are marketed outside their region of production, such as over the internet.

In general, some strategies involving short chains seek recognition, qualities and a premium price through their proximity, as well as a reduction in the costs involved in the process (PRINTEZIS, et all, 2018) using a lot of strategies to captivate consumers. These characteristics would be the ones that would allow greater openness to competitiveness vis-à-vis large agents, while at the same time fostering superiority vis-à-vis small agents that are not part of a short chain or LPA (local production arrangements), which make the contact between agents in a given sector, shortening distances between producers and their respective consumers, since a successful local productive arrangement tends to bring with it reputation and recognition. But, for this, the short chain must bring with it a greater differential than just a shortening of it or associationism, it must contribute to the value chain (GREBITUS, et al, 2017), at this point, mutual recognition between consumers and sellers of the mutual qualities and needs.

There are several movements that have grown up since the end of the 20th century that are related to food. Their goals are diverse, but their central position is to try to change the existing paradigm relating to the production, distribution, and consumption of food. These movements, as well as being critical of the existing system, have tried to provide solutions to many of the challenges of the 21st century, such as food safety, environmental degradation, and production systems, helping production to reduce its impact in terms of CO^2 emissions (global warming), the preservation of food culture, biological and food diversity, food waste and health problems arising from insufficient, excess, or inappropriate nutrition.

The movement to encourage organic, biological and agroecological agriculture, although not a single entity, but a series of initiatives that began in India, Japan and then later France and the United States, took on more shape after the Second World War as an alternative to "industrial agriculture". It criticized the use of pesticides, the unsustainability of the extensive use of fertilizers and the impact this would have on the environment and on the quality of food. The search for a production process that was more balanced with nature, along with the various certificates attesting to certain production criteria, created alternative production methods; not just Organic/biological, but also "permaculture", biodynamics, and agroforestry. Nowadays, organic agriculture and its variants are well known in practically all countries in the world and a common food production system.

One of these movements is *Slow Food,* which is an international NGO based in Italy, which has been going since 1989 as an alternative to fast food. Their interest is in preserving and preventing the disappearance of local food culture and to make food interesting to consumers and explain how their choice of food affects the environment and the world around them. The basis of this movement is that food is not just one dimensional; it influences many different aspects of life such as culture, politics, agriculture and the environment and, therefore, the way we choose how we eat has an impact on the food; from production to consumption. Therefore, its premise is that food should ideally be "good, clean and fair".

> The Slow Food for Biodiversity Foundation was created in 2003 and, although it is part of the Slow Food movement, the foundation has its own statute, finances, and administration, enabling it to fund projects such as the Ark of Taste, Presidia and Earth Markets. In general, they work to promote the projects of the Slow Food movement to support agricultural biodiversity and gastronomic tradition. They work mainly in developing countries where the most important factor is not improving welfare, but the very survival of people, communities, and cultures. (FREITAS, 2014, p. 20)

Many projects and groups are encouraged and guided by the activities of awareness campaigns such as *Slow Food* and others like *Food Miles*, as a purchasing basis designed to publicize the need to reduce the "ecological footprint" and support "rural or ecotourism" (EDWARDS-JONES, 2008). In other words, scientific concepts that are gaining acceptance among the consuming public to support the environmental and ecological agenda relating to food production. These initiatives recommend, and sometimes aim to change the way people think about systems in order, at the same time, to encourage ways of reducing the environmental impact and improving the quality of food, which are often linked to movements in support of traditional / local cuisine and organic / agroecological agriculture. In terms of practical issues, to achieve these objectives, they focus on the issue of urban/peripheral agricultural production, the creation of farming cooperatives and more environmentally efficient ways of consumption and marketing (BLAKE, 2010).

Another of these food-based movements is "fair trade", which is based on various organizations operating in several countries across the world. The aim is fair trade, in other words a guaranteed product price for the producer, that is sufficient to at least maintain their production and provide a decent livelihood. It seeks to stamp out conditions such as slave labour, precarious existences, discrimination, and child labour, and develop the farming communities, so that it has a positive impact on the places where the food is produced. For consumers, it is a guarantee that the food they are buying has reached them by a process that respects social justice and environmental and economic issues, as laid out under the fair-trade rules. In addition, these standards ensure that their "preferred" products will continue to be produced in a sustainable manner in the future.

> Fair Trade is a commercial partnership, based on dialogue, transparency, and respect, which aims to make international trade more equal. It supports sustainable development because it provides better trading conditions and it ensures the rights of marginalized producers and workers (IFAT, 2001apud SALGUERO, CLARO, 2015, p. 96)

The organizations of the consumers are mainly located in North America and Europe, while the organizations of the producers are mainly concentrated in Latin America, Africa, and South Asia. This is mainly due to the income disparity between these regions. In a study carried out in Europe in 15 countries, about 50% of consumers were familiar with fair trade and of these 80% considered that it was a good thing to have this brand on the products they bought. To get to this position, this organization has a global network which carries out educational and awareness activities, as well as working with producers (Mihajlovic, 2016). It has 1 million, 700 thousand producers as part of its system and is actively involved in lobbying and promoting policies related to the agricultural production chain.

And finally, there are also other movements such as *Rethink Food* that are primarily a nutritional approach but go further. These are established to promote healthy food, due to concerns about high-calorie food, with few essential nutrients (empty calories); while there are others such as *city harvest* that focus on food distribution and guarantee that they can deliver to people as fast and efficiently as possible. Both acknowledge "empty calorie" foods are generally cheaper and are aimed at those on low-incomes and children. They usually last longer and are less perishable. These campaigns promote courses and campaigns about food waste and recommend alternatives that are more nutritious and healthier. These movements certify partner restaurants, distribute meals to vulnerable groups and try to create a network around restaurants, communities, and vulnerable individuals, as well as working with farmers, restaurants, stores, and the community to avoid food waste.

The connection between "food hubs" and these movements are already present in some research, the reasons beyond these values are shared between them, or the improvement of initiatives through them. Digital food hubs can be one innovative channel to (Filippi et all 2019), due to their value and coopetition characteristics, have the ease of generating engagement and loyalty, with modulations ranging from associations with monthly fees, subscription systems or even CSA (community-sustained agriculture). This relationship model can be used as an engine for other initiatives, such as courses, awareness-raising projects and partnerships with government and civil entities. In view of this, "civic food networks" often use "food hubs" to coordinate and organize their initiatives, keeping the focus of community interaction and debate alive, while the hub ends up coordinating the product chain itself. (Maye and Kirwan, 2010)

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THE MAPPING OF ONLINE ORGANIC FOOD HUBS IN PORTO ALEGRE AND METROPOLITAN AREA

Based on the scope and purpose of the study, it was configured to use some basic criteria to select the food hubs, which enabled us to set some categories. The primary category was that they had to sell organic products over the internet in the greater Porto Alegre area, these products had to include food (discounting those who only sold medicines or beauty products, perfumes etc.). For that we use keywords, like "*entrega* - delivery" "*orgânicos* - organic" "*alimento* - food" "Porto Alegre" in many different combinations, all the results are quick checked for basic confirmation (exist, sell food, brazilian site). Of the selected sites, 20 food hubs were identified within these parameters using the Google, Bing, and Yahoo search engines. All of them sold organic products in the greater Porto Alegre area. During the period between the time the food hubs were selected (September 2020) and the data being analysed, five of the companies ceased trading; however, it was decided to keep the data for statistical purposes on the basis that it was still relevant (25% of food hubs ceased trading during the pandemic in 2020, despite online sales and delivery) and of interest.

The data gathered was based on the information published by these food hubs on their websites and any additional material such as magazines, interviews, reports and articles about these food hubs that could also be found on the internet. These data were divided based on relevant criteria for the analysis, beginning with the theoretical framework, such as types of products, intermediaries, involvement in cooperatives, involvement of farmers and then including the values and market positioning of the business, as well as data on the main aspect of their daily business for the type of e-commerce, such as frequency of delivery, ordering method, platform used for sales and interaction with consumers.

First type of data is more quantitative and became part of a table "Appendix 1", those are more centered in "objective question" or "simple category" which are used for a more statistical approach, trying to categorize and see patterns in the "food hubs" and build some correlations and common behavior. The second one, is more present in commentaries, discursions of aspects more vague or sometimes holistic, that qualitative data need a more careful analysis and will be used more to understand possible explanations for the quantitative data gathered than used in isolated form in a pursuit to explain the correlation and the more quantitative data. This approach looks forward to generate a model with the key aspect of this hubs and how they contributed to the perseverance and success.

A table was created from the data gathered, which can be found in "Appendix 1". The food hubs used various marketing channels, including websites, social media, and messaging apps. When we analyzed the data, we noticed that only four of the fifteen used only one channel/platform, which indicates how important it is to have an intensive presence on social media. This according to (Driessen, 2021) is observed in the United States, where the new food hubs are mostly online and engaged in social media. We also noted, looking at each example, that those who did not take part were older traders, who were going online as a complementary way to sell to customary buyers. The data showed how important social media is as a source of contact and interaction between producers and consumers. Only more traditional food hubs that already have extensive advertising or a long history of operating in the region and interpersonal contact, can do without it.

We analyzed the food hubs to examine the impact of physical stores and to examine the degree of dependence and how the activities were complementary within the various sales models. Of the websites surveyed, seven out of fifteen, according to Appendix 1, are in the sixth category. This is almost half (46,6%) of stores, but among these seven, five indicated that they had started with a physical store and had expanded to online sales, while still maintaining the store, and for the other two it was not possible to verify the progression. None of the stores analyzed open a local store before already being on the internet.

This shows that alternative methods do not have to be at the exclusion of others, but that there is a general tendency for this sector to migrate to or at least have an online presence as well as physical sales. Some food hubs explained that being only online enabled them to be "simple, agile and low cost". As there were no food hubs that were native online and had then migrated to a new established physical store, at least in this sample, online sales are a sufficiently resilient business approach.

Regarding the frequency of delivery, the minimum frequency was weekly and the most common was two or three deliveries. The most common delivery model was to the door; however, in some cases, orders could be picked up at the physical store (where available) or at other reference points. Many linked the frequency of delivery to certain regions or to certain quantities, due to scale and costs. In other words, logistics was a relevant issue for this aspect and had to be considered by these food hubs, and a great advantage when compared to a single producer or a single store. It is interesting to note that for food hubs that sold perishable or "freshly picked" products, the main characteristic of good service was the frequency of delivery. On this point, establishing a round tends to be beneficial as it makes it possible for customers to subscribe to regular services and supplies.

Once we had analyzed and considered the data, we identified three common features that applied to nearly all the food hubs that managed to continue operating: having farmers that were connected to the sales platform (enabling products to be fresh), the importance of customer loyalty (regular monthly deliveries, loyalty schemes, engagement, etc.), and an integrated logistical system connecting production-order-dispatch together within the one platform. Despite the limitations of the field research and the geography, the fact that all these features applied to those participants who survived while those who ceased trading did not have them is a correlation that cannot be ignored. We simply need to understand why it was the case.

Those food hubs which included farmers that were actively involved with the platform were able to provide some specific features that gave them a definitive advantage. The ability to deliver fresh produce, much of which would pick on the same day it was delivered and then brought straight to the point of sale or very quickly processed. When we take the relationship focus of food hubs,the link formed between the consumer and the farmer (it is possible to visit, and/or there is content and courses available), not only can this be exploited on social media, but there is also an identifiable connection between those who produce and those who consume and there can be an exchange around expectations and needs.

These features not only help with the logistics and with ease of distribution, as you are dealing with a short, dynamic, and efficient chain, but they also help with two other aspects. Firstly, consumption is more appealing, there is a connection and a certain co-responsibility in producing and supplying food, it creates loyalty. Secondly, because

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this is a short supply chain of 'just in time' products, which has respect for the seasonal availability of crops, conscious consumption, etc. The result is a simple, comprehensive logistics system with, consequently, lower costs. This approach generates in some food hubs a culture of feedback , and is born to a light process of co-creation.

One of the most interesting aspects is customer loyalty, which has become almost a requirement for a business to survive, especially in this market, is even most important in the analyzed food hubs; largely because it provides guaranteed revenue, because of the importance of engagement and how much easier it is to plan production, distribution, and other related activities. Loyalty itself implies a direct link between producers, the platform, and consumers. This synergy and requirement can be clearly seen in the values and objectives described by the sales platforms and by their philosophies. This loyalty also provides a shield when it comes to seasonal availability and those months when harvesting is more difficult (especially in food hubs which have some flexibility in which products to deliver). Customer loyalty can lead to guaranteed orders, which helps to attract producers, establish delivery rounds, and support the business, which explains why regular orders feature so prominently on these websites.

An integrated logistics system involving production-order-dispatch was also an important factor for all those involved and seems to be one of the key features in ensuring this type of business is efficient, who take a part in the motivation of the farmers engaged in this kind of venture. Orders are automatically generated on request, or, for regular deliveries, they are established when the monthly orders are taken. Many of the food hubs continue to pay attention to seasonal availability and production issues and therefore they tend to be flexible in which products are available for delivery. The flexibility and automation of the process, combined with scheduled harvest and geographical proximity enables deliveries to be frequent, which has a positive impact on both the shopping experience and the cost of products. As a result of all the efficiencies from placing orders and providing receipts, delivery costs can be reduced to match those companies who are able to offer efficiencies of scale. This efficiency in short supply chains also makes it possible to lower prices, which is important to be able to maintain and attract customers.

Those food hubs that were still operating had some interesting features in relation to loyalty and engagement. They engaged with the customers through things like subscriptions, monthly payments, clubs, and other kinds of more direct participation to get more commitment from customers. It is worth mentioning that the websites generated this loyalty and engagement by appealing to the values that are part of those topics of interest promoted by the various movements concerning food that we discussed earlier in this article. Some of the topics that these food hubs mentioned most frequently or were most prominent or important were:

1. *Local, fresh product*: All the food hubs stores advertised fresh, locally produced products, focusing on the importance of "reducing the distance between the farmer and the consumer", not just in terms of "Food Miles", but also by often explaining who the farmers were, where they lived and what they did. Even online, what is important here is the influence of short supply chains and establishing a close relationship. More practically, it acts as an important element in explaining the difference (fresh product, less transport, short logistical chain, a difficult product to produce through long chains)

2. *Having Respect for Seasonal Produce*:

Only one of the food hubs did not make a point of advertising the importance of seasonal availability (although that could still be a feature). It is mentioned to suggest how fresh the food is, and to explain how this practice helps ensure production is more sustainable: because providing this product outside the usual harvest period adds extra costs for every kg produced and storage adds extra energy costs and other losses. It also promotes a philosophy around respect for nature and the option for a more harmonious approach. On a practical level, it has the advantage that it ensures that crops are used as they are harvested (reducing production costs over the year) and the range of products is such that pricing is better and more competitive.

3. *Direct from the Producer*: All food hubs that were surveyed had as a policy, providing food directly from the farmer; although six of the fifteen did not identify who the producers were on the website. Most of the food hubs emphasize the role of the farmers, by aggregating the orders so that they can be satisfied on the day of delivery and providing fast and cheap logistics while at the same time guaranteeing that the food is fresh. Many of the addresses of the farmers were given, offering consumers the option even to visit the farms, which helps to form bonds between them and makes the claims the business makes more credible. Practically, by using short supply chains and directly involving the farmer, costs can be cut, a unique product is provided, and this all helps to engage consumers.

4. *Fair Trade and Fair Price*: Only one of the food hubs did not make a point of advertising respect for fair trade or price (although they may still do so). The food hubs do try to mention the balance between cheaper products and better remuneration for the farmer. What is more important than the amount paid per unit or kg, is that they try to emphasize the importance of ordering in advance or regularly to encourage or enable agricultural planning (avoiding waste or shortages) and supporting farming in general. From a practical point of view, agricultural planning and guaranteed quantities help farmers considerably with managing their costs. It also helps with the setting up of delivery rounds and logistical costs, helping them to manage the business better.

5. *Cooperatives/Associations*: Only two of the food hubs did not make a point of publicizing their respect for cooperative agriculture and associations (which could also relate to certification and other cooperative advantages), in addition some are formed by them. These characteristics, as well as the certification of organic products, generates a form of network, which is a very important method for enlisting farmers and reaching more consumers. It provides a sense of scale, while still evoking the spirit of cooperation or solidarity. In practical terms, it is a cheap and efficient way to become certified as an organic producer, while the cooperative network can also provide other advantages in terms of production or relationships.

6. *Organic and Healthy Food*: All of them highlighted the advantages of organic and healthy food. Beyond this, there was a flood of different terms used: "whole", "natural", "low calorie", "rich in fiber", "without preservatives", "in natura", "traditional" etc. Mentions of "weight loss" and other health benefits are also frequent in the majority, trying to demonstrate the benefits of exchanging existing food, principally processed, for food from their store. From a practical point of view, concerns about weight and health have become especially important for consumers, it is an extra sales pitch that justifies the higher price of the products.

As we can see, many of the features that were relevant in supporting the food hubs, have also proved to correlate to the arguments by the main movements in the debate around food. The "slow food" slogan is presented in most of the food hubs and linked to events of agroturism and gastronomy, being much of the "chefs" belonging to "slow food network". The nutritional aspect of products to health is constant, not only in nutritional value, avoiding empty calories and much sugar, but also no artificial preservatives/additives. The goal to minimize the carbon emission and be more sustainable is present in the logistics like short routes, use of recycle material for packing and low package products, and reducing waste by using the fruits of the season.

It seems that, although it still requires further analysis, these food hubs who are selling organic products online can differentiate themselves from other sellers of organic products on other networks, precisely because they have short supply chains which match the ecological values of the consumers. These consumers are willing to pay producers monthly to generate the necessary efficiency savings for the food hubs to be economically viable. The advantages of social media and the internet may have also helped, as one of the key features is reducing transaction costs, especially for small-scale producers, and reducing investments in traditional channels.

Some limitations appear to prevent some people from joining the food hub as producers or consumers. Some limitations are linked to having internet and digital devices to control the orders and communicate with the food hub and customers, somewhat still common in south Brazil. The need for a short trip between producers and the customers makes some far away producers, even in metropolitan areas, be excluded from the routes for being "off trip" and far away for "clusters of producers". On the consumer side, to be lucrative and efficient, the surroundings of some new routes need to have more than one person that buys to guarantee the low delivery cost, this is sometimes diminished by organized consumers and shared routes but is not always the case.

FINAL THOUGHTS

When we have a look at the characteristics of those food hubs that we investigated we can clearly see how important are those factors that are also related to intangible assets. The importance of cooperatives and cooperation is itself already a common feature in agriculture, but it was uniform among the 15 food hubs surveyed. All of them were either created by farmers or farmers were involved in the process in a profitable way, and usually they were clearly identifiable. In many of these food hubs, these farmers produced, not only their products, but also content for the website and connected with the shoppers. In this sense they became a valuable and integral part of the business, and not one that could easily be replaced by another supplier.

Most of the studied food hubs had core values of responsible consumption, respect for seasonal availability, fair trade and a sense of local, rural culture and proximity (forming short supply chains with a close relationship between producers and consumers). In this respect, the consumers of these products, based on what the websites themselves stated, identified with these values, and became "engaged" consumers. These consumers, however, do not appear spontaneously; they are influenced through "networks". These are the series of events on such themes, rural tourism, fairs, courses and other events and civil society movements. Therefore, the time and effort to set up their base does not appear to be just about having a product and a website. The entire mechanism itself is an asset that needs investment to establish it and maintain it.

These organizations use the ecological stance of the movements relating to the debate on food, and at the same time they feed the local systems with these ideas, creating a form of feedback. As a result, the initiatives about debating the food system, result in changing the market, and attracting consumers to enterprises such as those we looked at. Therefore, the food hubs we surveyed have ended up reflecting many of the concerns, aspirations, and desires of consumers, which in turn means they gain their "loyalty", and this has proved to be the key to the business models in our survey that have thrived.

Therefore, our survey has provided a clear direction for food hubs of this type that are based in being organic and local. The common approaches are to highlight how products are picked fresh on the day, that they come from specific farmers and that this type of supply is natural and sustainable. They frequently include references to local gastronomic and cultural events and fairs in the news sections of their websites. All of this helps to make a business seem more human and relatable, which they also encourage by including plenty of videos and photos and being involved on social media. As a result, the distance created by being online, turns into a closer relationship, based on sharing information and experiences and by creating somewhere where consumers can buy products and learn about food and about local farming.

When we examine the niche for organic products, one of the dynamics of the "fresh vegetable market" is highly fluctuating prices, due to the short shelf life of the products, as well as the short production cycles and high impact of the weather on planting. This means that supplies are unstable while demand is consistent. This is even more accentuated than in conventional cultivation because pesticides are not used. In the field of organic products, if there is an impact on price and availability of supplies, this creates a challenge for food hubs to achieve competitive availability and prices with conventional products, despite the consumer being willing to pay more for organic products. In this respect, the central factor used to minimize this issue was customers signing up for regular deliveries, which may well have helped to keep those food hubs we investigated going.

Finally, this research mapped a relevant number of "locations" that sell organic products in the region of Porto Alegre/RS and highlighted their main characteristics in terms of the sales channel they use, their logistics and their values. As part of this objective, it was possible to take these data and put them into tables that helped to analyze the most striking characteristics of these "locations". Once the data were analyzed from a theoretical perspective and discussed, three key points emerged: a) the importance of having farmers who were intricately linked to the sales platform; b) the importance of customer loyalty; c) an integrated logistics system involving production-order-dispatch). Six features that were common to all these projects were also identified: a) local, fresh products; b) respect for seasonal availability; c) direct from the producer; d) fair trade and fair price; e) cooperatives and associations and f) selling organic food emphasizing the health aspects.

For the success and access to the food hubs the digitalization, the infrastructure and organization of producers and consumers are a key point. The existence of cooperatives, associations and a engaged community are normally bonded to the existence and perseverance of the food hubs in Porto Alegre metropolitan Area. For public policy focuses on rural development through food hubs, the access to market can be an incentive for training the farmers in computers, production organization and cooperativism. Facilitation of good routes and " pick up points" for food can also be a good incentive.

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