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Consumers' Sustainability Perceptions of the Supply Chain of Locally Produced Food

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Abstract: This article is based on a qualitative focus group study regarding consumer perceptions about the sustainability of locally produced food supply chains. Sustainability perceptions were analyzed through thematic content analysis, where the most important economic, environmental and social themes of the supply chain were emphasized. According to the research findings, the socio-cultural aspects encompassing locally produced food form the most important sustainability dimension for consumers. Although the sample size is small, consisting of 19 consumers and limited to Central Finland, the findings suggest that the sustainability of local food should be promoted via socio-cultural arguments alongside economic or environmental ones. The results conclude that the development of local food networks requires direct personal relationships with producers, social networking, consumer education and communication.

Keywords: locally produced food; supply chain; sustainability; consumer perceptions; focus group

1. Introduction

Locally produced food or simply 'local food', can be understood as a retro-innovation in the food business. Consumers are increasingly concerned about the sustainability implications of food and demand alternatives to global supply chains. Simultaneously, organic and fair trade foods are also increasing their market shares. The sustainability implications of locally produced food can be environmental, economic and socio-cultural, and all need to be considered in contemporary food

research. In addition, consumer ethnocentrism (*i.e.*, the enthusiasm for supporting domestic food products), has been recognized as a major theme in recent consumer studies [1].

Local food research has typically been dominated by rural sociology and geography literature [2]. The focus of these studies has centered on producers and producer-networks. More recently, consumer research has also uncovered a growing interest in local food, including extensive research on consumer attitudes, as well as situational and demographic factors influencing the local food market [3]. Supply chains of locally produced food have been referred to as alternatives to conventional supply chains or as non-conventional food networks [4].

Modest attention has been given to consumers' perceptions of the whole supply chain of locally produced food. Understanding the dynamics and various sustainability dimensions of the entire supply chain is important in the analysis of local food markets and consumer behavior. It is not merely the product itself but a combination of the actors and all the processes within the supply chain that ultimately influence the success or failure of local food initiatives.

This research strives to describe and analyze consumer perceptions of sustainability within the supply chains of locally produced food. The perceptions were analysed using thematic content analysis, which emphasises the most important economic, environmental and social themes related to the supply chains of local food. The empirical data was collected in Central Finland and is based on data obtained from four focus group panels.

The main contribution of this empirical research is to increase understanding about the various dimensions of sustainability in the supply chains of locally produced food. The study underlines the complexity of food as phenomena by examining the different meanings and understanding held by consumers with regard to locally produced food. It also serves as "food for thought" for the management of local food networks and the marketing of locally produced food. The findings indicate that the socio-cultural aspects of sustainability probably have the greatest influence on the consumption of locally produced food, although environmental and economic aspects also impinge on consumer perceptions.

2. Sustainability in the Supply Chains of Locally Produced Food

When analyzing boundaries between conventional food systems and locally produced food systems, Sonnino and Marsden [5] advocate the notion of embeddedness, including both horizontal and vertical dimensions. The vertical dimension refers to hierarchical linkages of supply chain actors at the local level to the larger society of which they are a part [5]. Hence, the analysis of vertical embeddedness within locally produced food systems requires a supply chain approach that covers the linkages between relevant supply chain actors. The direct and indirect relationships between producers and consumers are central to the supply chains of locally produced food. Sustainability in food supply chains is a combination of environmental, social and economic dimensions. Reliance on geographically near-by agro-ecosystems, farms and socio-culturally and economically similar exchanges hold environmental and socioeconomic impacts of a municipal and provincial scale [6]. Cowell and Parkinson [7] identify three main sustainability-related arguments, which are used for promoting the regionalization or localization of food production and consumption: the reduction of environmental impacts by way of shorter transportation distances; the potential reduction of

environmental degradation and exploitation of human labor; and, an increased sense of community through local networks of producers and consumers.

The main phases of the supply chain of locally produced food are production, refining, transport, retail and consumption. The production phase includes all agricultural processes and farm activities conducted by the producer. Producer perspectives of locally produced food has been studied by Jokinen *et al.* [8], who identify trust, familiarity and safety as crucial elements of local food. However, farmers perceive their own position as being economically vulnerable in the supply chain. “Producers as consumers” types of agendas also exist, in which food is grown directly by those who consume it, such as in community gardens and community food cooperatives [4]. Tovey [9] suggests that consumers need to re-educate themselves about food production through “producers as consumers” types of programs or by initiating local, social relationships with producers, which can be referred to as producer-consumer partnerships [4]. The refining and transportation phase includes the treatment processes of a fresh product, packaging, transport, and other logistics. Local food production typically strives to minimize treatment, packaging and transportation distances.

The retail phase refers to all activities associated with the retailer, including purchasing, product layout, marketing and customer service. The purchasing function (also described as procurement) has traditionally been regarded as a limited support service, but more recently, green purchasing and supply management have contributed to a transition towards sustainability [10]. According to Rao and Holt [11], two key components of green purchasing strategies are evaluation/monitoring and mentoring/collaboration. Retailers of locally produced food are often specialist online grocers and wholesalers [4], although locally produced food is generally sold through conventional supermarkets as well. However, in locally produced food supply chains, the retailer as a middleman can be eliminated completely by establishing farmers’ markets, farm gate sales, mobile food shops, box schemes and producer cooperatives [4]. These types of direct-sale initiatives (excluding internet approaches) increase face-to-face contact between producers and consumers. Direct buying through farmers’ markets has gained popularity, especially in the United States [12]. The consumption phase basically includes consumer attitudes, purchasing behavior and the preparation and consumption of food.

The energy input required for the life cycles of food items can vary considerably, depending on the origin of the food, the degree and type of processing, preparation technology used and transportation distance [13]. The origin of food may refer to the geographic location of production, climate conditions and the applied production method (e.g., conventional *versus* organic). However, transportation seems to be a key issue in the debate over the environmental impacts of global *versus* local food chains [7]. Hence, discussion regarding the environmental sustainability of locally produced food has concentrated on food miles and the climate change impacts of food transport. According to Carlsson-Kanyama *et al.* [13] the energy consumed by food transport (a function of distance and vehicle efficiency) can vary significantly between fruits of different origin, although apples from overseas, for example, are transported by way of energy efficient ships. In practice, consumers can contribute to sustainability with their diets. Diets containing less meat and cheese, more in-season vegetables and more locally produced and fresh foods have been recommended [13].

The economic and socio-cultural aspects of locally produced food, especially within the literature of rural sociology and geography, and in accordance with the ecological modernization theory, have been studied. A spatial network perspective to locally produced food has also been widely applied. There is

considerable interest in examining how local and regional food networks can contribute to more sustainable rural development and wealth creation [2]. Locally produced food can provide opportunities for sustainable rural livelihoods and small-scale rural entrepreneurship and enhance the socio-cultural identity of a region. Job creation and preservation, in addition to the many value added impacts of local food networks can be considerable [2]. Furthermore, locally produced food networks can be seen as retro-innovations and alternative counter-movements to global supply chains, driven by ecological or sustainable entrepreneurs at a grass-roots level with a bottom-up approach [2]. Järvelä *et al.* [14] discuss the multifunctional dimensions of local food systems, such as improved transparency compared to conventional supply chains, additions to the overall social assets of a community, maintenance of the landscape and revitalization of local heritage.

In addition to the key supply chain actors involved in locally produced food, the public sector also contributes significantly to promoting and regulating the use of locally produced food. Public purchasers, for example, may require that a certain proportion of food offered at canteens be organic. Other requirements may include ensuring that certain foodstuffs are organically produced, or that only those products that are in-season in the area at the time are included [15]. However, there may be potential legal restrictions over the extent to which food products can be promoted purely on the basis of being locally produced [3]. Weatherell *et al.* [16] advocate the development of local products through mainstream channels as well as the potential use of differentiating branding techniques by policy-makers. On the other hand, the use of brands can be seen as a controversial issue within the context of local relationships between producers and consumers. As Higgins [17] suggests, institutionalized conventions, standards and labeling may be useful when selling products outside of the region of production.

3. Consumer Perceptions of Locally Produced Food

Tovey [9] has criticized the sociology of agriculture in the industrialized world for a lack of attention and activism about food consumption. In recent years, however, there has been a growing trend to study consumer perspectives of locally produced food, relating to sustainable or ethical consumption. Studies pertaining to consumer perceptions of production and producers have yielded a variety of findings. Roininen *et al.* [18] found that in Finland, rural consumers, in particular, consider local food as a way to support local production and create economic welfare in an area. On the other hand, according to Chambers *et al.* [1], male participants over the age of 50 express the most resentment and negative views towards farmers in the UK, whereas younger participants express more positive attitudes. On average, the British survey by Weatherell *et al.* [16] reported sympathetic views on farming-related questions and suggested that rural consumers show a greater interest in local foods than their urban counterparts. The reasoning offered by Weatherell *et al.* [16] is that rural consumers live closer to farming activities and have more frequent contact with farming communities. Tregear and Ness [3] also support the findings of the survey. A study conducted on the perceptions of organic shoppers revealed that parental-like characteristics were assigned to local farmers, including nurturing, supportive and protective characteristics and that buying local was like belonging to a family [19].

Studies on consumer perceptions concerning food transportation emphasize the central role that transportation plays within the food chain. Consumers generally have “short chain” associations of

locally produced food [3]. In a Finnish study by Roininen *et al.* [18], short transportation distances were cited as a major reason for the preference of purchasing locally produced food. Rural consumers associate short transportation distances to superior taste, lower price, freshness and saving money, whereas urban consumers mainly make associations to animal welfare and a respect for nature [18]. Consumers also connected food quality and freshness with shorter transportation distances in a British study conducted by Chambers *et al.* [1]. Although the distance from production site to market place may be shorter, locally produced food may require a greater distance between market place and consumer. Zepeda [12] notes that having a local food market nearby and possessing a means to get there can be crucial to the rationale behind buying local food.

Previous consumer studies have indicated that retail is also an important phase in the supply chain of locally produced food. In fact, a survey by Weatherell *et al.* [16] showed that the majority of consumers rank supermarkets as their preferred option for accessing local food. They suggest that consumers expect locally produced food to correspond to their regular shopping habits, retail outlets and end-product formats. This is largely due to the lack of time, convenience and opportunity associated with current lifestyles [1]. In addition, consumers value product variety and the year-round availability that imported foods provide [1].

Consumer perceptions related to the actual consumption phase of food (*i.e.*, purchasing and eating), have also been studied. In terms of taste, local food that is in-season is perceived as superior, according to a study by Chambers *et al.* [1]. Using a word association method, Roininen *et al.* [18] uncovered that high prices are the only negative association related to locally produced food. A focus group study by Chambers *et al.* [1] also identified price as one of the most salient themes. Zepeda [12] found that enjoyment and the frequency of cooking significantly increase the probability of buying local food, whereas higher cost significantly reduces the probability. In a consumer study by Zepeda and Deal [19], reasons for buying local food were all based on values, beliefs and norms. For example, food purchasing behavior may have shifted from organic to local, due to the perceived commercialization of organic foods and the industrialization of organic farming practices [19].

4. Research Design

Data was gathered through four focus group discussions in November 2008. As the purpose of this study was to obtain qualitative data about the sustainability perceptions of consumers concerning the supply chain of locally produced food, a focus group method was selected. According to Stewart and Shamdasani [20], focus group studies allow “the researcher to obtain deeper levels of meaning, make important connections and identify subtle nuances in expression and meaning”. In addition, synergistic effects can be interpreted in focus groups, which implies that data or ideas that might not have been uncovered in individual interviews may be recognized. On the other hand, the limitations of focus groups are mainly related to the small number of respondents and to potential undesirable effects caused by the interaction of respondents [20]. These limitations significantly restrict generalizations to larger populations.

This research clearly avoids making generalizations and focuses more on making connections and identifying nuances in expressions and meanings. The sample was small (19) but the respondents were recruited from four different food retailers in Central Finland. Because the sample was too small to

perform any quantitative data analysis, qualitative analysis was conducted instead. According to Morgan [21], both qualitative and quantitative analysis techniques can be applied in focus group studies. Recruitments were made personally in an eco-shop (Group 1; four participants), a local food market (Group 2; eight participants), a corner shop (Group 3; three participants) and two supermarkets (Group 4; four participants). The intention was to collect a sample of consumers with different purchasing habits. However, it became evident that most of the participants were cross-shoppers (*i.e.*, they typically purchase their food from two or more stores). Gender and age distributions, as well as household size and a description of residence for each participant are provided in more detail in Table 1.

Table 1. Focus group participants.

Respondent	Recruitment	Gender	Age	Household size	Residence
1	Eco-shop	male	38	2	rural
2	Eco-shop	female	48	1	urban
3	Eco-shop	male	24	2	urban
4	Eco-shop	female	20	2	urban
5	Local food market	male	59	1	rural
6	Local food market	male	74	2	urban
7	Local food market	female	43	4	urban
8	Local food market	male	47	4	urban
9	Local food market	female	49	3	urban
10	Local food market	female	50	1	urban
11	Local food market	male	37	2	urban
12	Local food market	female	26	2	urban
13	Corner shop	female	78	2	urban
14	Corner shop	male	30	3	urban
15	Corner shop	female	23	2	urban
16	Supermarket	female	57	2	urban
17	Supermarket	female	58	2	urban
18	Supermarket	female	18	2	urban
19	Supermarket	female	51	5	urban
Average			43.7	2.3	

Socio-economic status was not included, as Zepeda [12] found that income does not significantly influence the probability of purchasing local food. However, more research is required to verify any relationship that may exist between local foods and socio-economic status. The division of urban and rural participants was not very straightforward, as Jyväskylä (130,000 residents) and especially Heinola (21,000 residents) are small cities that are closely integrated with the surrounding countryside. Hence, the recruitment of participants may be biased towards local food-minded or rural-minded participants. In fact, the city of Jyväskylä, which was only officially founded in 2009, is one of the largest agricultural producers in Central Finland. Each respondent was asked to fill in a form, in which their home address was requested. Thus, the urban/rural division of participants was determined based upon the respondents' home addresses. All focus group discussions were conducted in the evenings at the University of Jyväskylä, with the exception of one group meeting that took place at a local food

market in Heinola. The urban locations chosen for the focus group meetings possibly decreased the number of rural consumers on the panels.

All four groups included experienced, and sometimes enthusiastic, consumers of locally produced food. Experiences with local food included buying directly from farm gate sales, relatives, neighbors and a food circle organized by the university Student Union. On the other hand, each group also included members who were not so familiar with locally produced food. These included students, a pensioner and family members with no personal experiences with locally produced food. The majority of the respondents lived in an urban area but many of them referred to their rural roots and to direct connections with producers.

There were no actual critics of locally produced food in these focus groups, but critical perspectives did surface. All in all, the respondents in the focus groups seemed to encompass more knowledge and awareness of locally produced food than the average person. During the recruitment phase, the study was introduced to respondents as a review of locally produced food, organic food and fair trade food. A monetary incentive of a €20 gift voucher was awarded to each participant. The themes in the discussion protocol were related to locally produced food, organic food and fair trade food. In this paper, however, perceptions concerning locally produced food were separated from the larger study of food. The discussion themes were presented as follows:

1. What kinds of experiences or images do you have concerning locally produced food, organic food and fair trade food? (30 minutes)
2. How important is the origin and locality of food to you? In what kinds of food products are they especially important? (30 minutes)
3. What motivates or restricts you to buy locally produced food, organic food and fair trade food? (15 minutes)
4. What could retailers or producers do to increase the quantity of locally produced food, organic food or fair trade food in your shopping basket? (15 minutes)

Hence, locally produced food was only one sub-topic in the discussion. As the purpose of this paper was not to make cross-sectional comparison between different types of food, organic and fair trade foods were excluded in the analysis. In addition, the terms economic, environmental or social sustainability were not mentioned by the moderator. Respondents were highly involved in discussing these themes. There was substantial interaction between the focus group members, which allowed them to share ideas and knowledge across the group. Only minimal involvement by the moderator was required in the meetings. The size of the focus groups seemed to have no impact on the findings. All transcripts of group dialogue were organized using Atlas.ti software for qualitative data. The analytical unit chosen for qualitative content analysis was an utterance, typically including more than one sentence. The analysis relied on interpretive summaries of the data rather than quantitative measurements. The intent was to maintain a balance between the direct quotations given by participants and the overall summaries of their discussions [21]. This research can be classified as pragmatic content analysis, which focuses on the reasons why subjects express particular opinions [20]. In the analysis, thematic categorization was applied to highlight the most important economic, environmental and social themes derived from the focus groups [22]. Interpretations of sustainability perceptions related to locally produced food, were made in each category. General

response patterns were examined, but simultaneously, special attention was given to individual responses that were atypical to the majority of responses.

5. Analysis

Locally produced food, or local food, is often studied as a product rather than as a supply chain of successive activities or a network of local actors. The results of the content analysis reveal specific consumer perceptions regarding the various phases of a locally produced food supply chain, from production to consumption. The results, however, cannot be generalized to a larger population and they must rather be interpreted as an outcome of a specific spatial, socio-cultural and demographic context (*i.e.*, Central Finland). From a sustainability point of view, the main findings of this study are related to various consumer interpretations of economic, environmental and socio-cultural aspects of local food.

5.1. Economic Sustainability of Locally Produced Food

Economic sustainability of locally produced food was particularly associated with producers, producer-retailer relationships, price and economic barriers existing within the public sector. The following excerpt (respondent 10) emphasises the link between the economic viability of local production and consumer behavior. In fact, local production can be viewed as a necessary pre-requisite for eating meat in the first place. In this particular example, the respondent's brother's farm was located nearby and the production method was organic.

My brother has raised organic beef cattle, and in turn, I have received meat from him. And now that he is closing down his production, I have considered whether I should stop eating meat altogether.

The excerpt reveals that the respondent's brother is closing down his production. In general, the profitability of local (and organic) farming was questioned in the focus groups. In addition, there were concerns that producers are not investing enough effort into marketing and that local products are not being sufficiently advertized. Local production was generally perceived as a way to ensure a sufficient livelihood, rather than as a way to make a profit.

Sustainability perceptions related to the retail of locally produced food placed even greater importance on economic aspects. Economic barriers existing within producer-retailer relationships were acknowledged in focus group discussions. Retailers were accused of being too profit-oriented, ignoring local, small-scale producers and preferring large-scale wholesalers with greater volumes of supply. The focus group participants identified some barriers currently facing local food retail. Finnish food retail is very centralized and dominated by two large retailers, K-Group and S-Group. Local food production, in turn, is very decentralized and dispersed. The next excerpt (Respondent 5) summarizes the market situation in Finland:

If you set out to sell 100 kilograms of turnips, say, to K-Group or S-Group, I wonder if you will succeed in selling them? Perhaps they do not purchase products in such small volumes. They have their own routes...

Large retailers have established purchasing channels through wholesalers. For small producers with small supply quantities, it may be difficult to achieve mainstream supply chains. The focus groups suggested that retailers should take a more active role in searching for local suppliers, coordinating local supplier networks and maintaining the networks, as Respondent 17 explains:

Retailers should begin to investigate exactly who is producing what in their locality. Next, connections could be developed and maintained.

Respondents emphasized the active identification of local producers and the coordination of local networks. Jokinen *et al.* [8] previously found that producers find it difficult to access consumer markets via conventional retailer channels. However, according to the findings of this study, there were contradictory consumer perceptions with respect to locally produced food in supermarkets. Some consumers do not consider locally produced food to be something which can or should be purchased in supermarkets, whereas other consumers expect to find more locally produced food in supermarkets, as the study by Weatherell *et al.* [16] suggests. Urban *versus* rural residency might possibly explain such differences in perceptions [16]. In April and May 2010, there was a sudden demand for locally produced food, as the Finnish food industry, including the largest food suppliers, went on strike. Retail chains faced immediate problems in their conventional food supply chains and store shelves emptied rapidly. During the strike, retailers acclaimed their relationships with small, local producers, who were not on strike.

The focus group participants identified the public sector's role as a promoter of locally produced food. The economic aspect of the public promotion of locally produced food was perceived indirectly. For example, school children, pensioners in retirement homes and hospital patients do not have an equal, economic opportunity to eat locally produced food without an active purchasing policy implemented by the public sector. The Organic Food Circle of the Student Union at the University of Jyväskylä was identified as one successful example of a public, local food-related initiative. Food provided in the circle is organic and locally produced. Thus, this initiative combines the benefits of locality and organic production. According to a student, both locality and organic characteristics increase the value of food. In addition, pricing is student-friendly. Positive experiences regarding the local food circle (which is organized by the Student Union on a volunteer basis), are provided in the next excerpt (Respondent 15):

So, somehow, it has felt good. It is also affordable to order through the Organic Food Circle. The food comes from nearby municipalities. And all that is added is a delivery fee of 40 cents.

Economic sustainability may require the establishment of contractual systems, as Respondent 10 suggests. Committed consumer networks and binding contracts with local producers were seen as a cornerstone in the development of local food networks. Local food circles could bring the producers and consumers together, which, in turn, could have positive economic implications for producers. The following excerpt refers to experiments conducted in Helsinki:

Was it in Ruohonjuuri, Helsinki, where several people within the area deliberately made contracts, so that they were committed to buy from one another?... Perhaps food circles could be found in our region, as well, that might directly lead to contracts with producers? They could have some assurance that their product will be bought. That could really be a rather positive thing.

In fact, food circles are becoming increasingly popular in the Jyväskylä Region. Two new regional food circles have emerged between 2009 and 2010 and the third one, founded by the non-profit association JAPA (The Local Agenda of the Citizens of Jyväskylä) is currently in its planning stages. It seems that a net-broker is required to build regional food circles and motivate consumers. In the Jyväskylä region, the Student Union of the University of Jyväskylä, as well as JAPA, which cooperates closely with the City of Jyväskylä, are generally considered to be net-brokers of local food networks. In the Heinola region, such net-brokers were not identified, unless the local food market Heila is considered as such.

Buying locally produced food demonstrates support for the local economy, just like buying fair trade food demonstrates support for developing economies. In other words, consumers have a choice of providing aid to poverty mitigation (fair trade) or supporting local, rural livelihoods (locally produced food). The next excerpt (Respondent 1) suggests that older generations, in particular, value the safety and reputation associated with domestic products:

I would assume that older generations favor domestic products. Even for my parents it is extremely important to know where their fish comes from, for example or that they buy some familiar bread which they have been buying for decades.

By purchasing locally produced food, older consumers, in particular, feel they contribute to the development of the local economy. The oldest participant recalled desperate times after the Second World War, when locally produced food was the only available option.

5.2. Environmental Sustainability of Locally Produced Food and Human Health

Environmental sustainability of locally produced food was especially associated with transport, local conditions, food processing, the use of private cars, as well as a combination of local and organic production. Environmental sustainability and human health were strongly interrelated in the focus group discussions. Hence, they are discussed together in this section. The actual environmental management practices of local producers were not addressed, which may imply a positive reflection of trust towards local farming practices.

There were contradictory environmental perceptions concerning food transport, as the issue of food miles was raised in focus group discussions. In general, consumers expressed negative opinions about international and national long-distance transportation of food but they still recognized its efficiency compared to the more dispersed, logistical transportation systems of locally produced food. Younger participants, in particular, recognized environmental issues related to transportation. Both cost-efficiency and eco-efficiency of large-scale international and domestic logistics were acknowledged. Fuel consumption in transportation was perceived as a problem but it was assumed to be marginal

compared to other phases in the supply chain. The comments made by Respondent 14 illustrate the importance of coordinating logistics from an ecological point of view:

If each farmer drove his own car to the market to deliver his produce, it might actually be less ecological than transport in a massive, logistical arrangement. Some company should consider how it could transport products from point a to point b with minimal fuel consumption. It just occurred to me to consider separate, individual deliveries, versus some big transporter... one large vehicle that could transport everything at once.

Hence, environmental issues may become disadvantageous for locally produced food, if transport logistics from producer to consumer are not coordinated effectively. Obviously, logistics management is easier to accomplish for larger volumes of food and such management may prove to be challenging for small-scale producers. In addition, negative environmental impacts associated with the increasing use of private cars within local food networks was acknowledged by some respondents. On the other hand, direct contact with a producer can be a positive experience for an urban consumer, as Respondent 3 explains:

Sure, it sounds cool, as an idea, at least. You could get in your car and pick something up from your local farm.

Although the use of private cars was generally perceived as environmentally harmful, private cars can also offer a feeling of freedom and independence in the local food system. In the above excerpt, driving the car to obtain fresh, farm produce was perceived as a pleasant experience rather than as an inconvenience.

Extensive food processing was particularly associated with large refineries, such as large-scale bakeries and grain mills. Small, local bakeries offer an alternative, with less processing, packaging and transport. Long distances between production and consumption were more frequently associated with the freshness or quality of food rather than with climate change issues, although the transport of food from one side of the world to another was not typically seen as the most ecological option. Respondent 15 emphasises the importance of freshness in locally produced foods on two occasions:

Well, I have used this Organic Food Circle at the University of Jyväskylä. I personally mainly use grain products. Oh, and also organic turnip rape oil. I have also considered buying tea, but I haven't tried it yet. I can at least notice the difference when I get an oatmeal package that was packaged yesterday—nearby. And then, when I cook that porridge, it just tastes considerably better. Additionally, for me, the purity of food is quite important.

In my opinion, it is obvious when food is freshly packed. When you receive such food it is fresh and it has probably not sat in the packaging over long distances. And of course all these pollutions and others and as close as possible.

Freshness underlines the health aspect of locally produced food in terms of the produced value added for the enjoyment of eating. Hence, from a consumer point of view, the most relevant

association is between food miles and the freshness of a product. This view concurs with the findings of Chambers *et al.* [1], reaffirming the link between short transportation distances and food quality. However, the findings are somewhat contradictory to some previous studies [7], which emphasize the importance of the environmental impacts of transportation. Typically, respondents did not specify the environmental impacts of the local food supply chains very clearly (“the purity of food”, “pollutions”). In addition, no specific criteria for transportation distances between the points of production and consumption were given (“as close as possible”).

Confrontations arose in the focus groups regarding locally produced food and imported food. The environmental impacts from transporting imported tomatoes were a concern, but a domestic alternative of greenhouse tomatoes was not seen as a more sustainable option due to all the electricity consumed in the production phase. Focus group participants questioned whether it is sustainable to produce greenhouse vegetables in Finland during the winter. In Spain, on the other hand, tomato production for export purposes was perceived as unsustainable due to the extensive use of scarce water resources. Also, the quality of exotic fruits was questioned, as imported fruits are picked half ripe. Local berries were suggested as an alternative to exotic fruits. Hence, freshness was determined to be a considerable advantage of locally produced food. In addition, consumers made comparisons between exotic fruits consumed in their countries of origin and those consumed in Finland. It was resolved that oranges, for example, taste better in Israel than in Finland, because they are less processed and have traveled a shorter distance. Typical to the Finnish context were discussions regarding the limitations set by climate conditions. Especially in Lapland (located in the northern part of Finland), the production of crops is very limited. Hence, meanings given to locally produced food may also be determined by local conditions such as geographical location, the growing period and the season.

The following excerpt (Respondent 15) insinuates that perceptions may be based on a general image about environmental impacts and health effects. Trust in locally produced food obviously increases positive associations. It should be noted that locally produced food was often associated with organic food and they were typically mentioned together in the same context.

I have the belief that local food and organic food are ethical and more pure, for the most part, at least, and generally better for the environment and myself.

Locally produced food conjures images of sustainability in the minds of consumers when they make decisions regarding their purchases. In fact, environmental images of locally produced food are very similar to the images of organic food. On the other hand, locally produced, organic and fair trade food can be seen as distinctive options in attaining sustainable consumer behavior. Locally produced food was typically “ranked” first, before organic food and fair trade food in all focus groups. On the other hand, locally produced food and organic food were often mentioned in the same context, whereas fair trade food was considered to be something different altogether. As the next excerpt demonstrates, Respondent 19 groups locally produced food and organic food together while neglecting fair trade food altogether.

Let's come back to this fair trade issue. Perhaps it has not been so necessary for me, because I use a lot of local food and organic food.

This distinction can partially be explained by the fact that fair trade food is nearly always global, whereas locally produced and organic food is most often local. In general, locally produced food was perceived as an ethical and sustainable choice from a consumer perspective.

5.3. Socio-Cultural Sustainability of Locally Produced Food

Socio-cultural sustainability was a dominating theme in the focus group discussions and it was perceived more important by the focus group participants than economic or environmental sustainability, when discussing locally produced food. Socio-cultural sustainability of locally produced food was primarily associated with trust, familiarity, personal contact and nostalgia, such as childhood memories of farms, experience, communication and shopping convenience. The reappearance of local food was recognized as a current trend among older focus group members, as they compared current developments with their childhood, when basically all food was locally produced. The history, culture and traditions of a particular region and its people seem to be central components in the formation of perceptions towards locally produced food. One could argue that individual food decisions are more complex than decisions related to other types of products.

When consumers were asked to describe their relationship with production and producers, a strong, socio-cultural orientation was identified. The findings are in accordance with the results of the study by Jokinen *et al.* [8], where producer perceptions of locally produced food were studied. The perceptions of local food production were based on personal experiences and images. Local production was associated with many different local actors, such as rural relatives working as farmers, farming neighbors, as well as farms in nearby municipalities. Hence, familiarity with producers, including established, trustworthy, personal relationships might indicate a sustainability advantage in the supply chain of locally produced food. Familiarity and dialogue with producers personalizes the meaning of food in a way that is not attainable in supermarkets. Respondent 1 reiterates the socio-cultural dimension of locally produced food by comparing food purchased directly from the producer with food purchased from a grocery store or a supermarket:

You trust that person and have some kind of a personal relationship with him. The food is not just a product of some production plant. And also, in many stores the staff is usually...thank you...impersonal. It does not bring a positive "feeling" to the food. It is like the food is just there to stuff your stomach with. In my opinion, food is about so much more than just that.

Respondents typically expressed a desire to have more direct contact with producers, as local producers were identified as being fair and socially oriented people. In addition, producers are able to answer consumer questions pertaining to their product and in turn, the increased product knowledge increases the perceived value of food among consumers. The next excerpt (Respondent 19) reveals that local food production is not necessarily an environmental issue for consumers but a socio-cultural issue based on a familiarity of farms. Hence, buying local can be an axiomatic and natural course of action in the specific cultural context of a consumer that has no association to supermarkets at all. The next excerpt illustrates that locally produced food can be more readily defined by personal relationships than by food miles:

You articulated it well—about local food and the environment, and how far the food comes from. No, perhaps I haven't considered that (environmental impacts of local food). I have just assumed that local food comes from the farms I am familiar with. I don't, for example, buy local food from some grocery stores.

Typically, respondents found it difficult to assess the locality of food based on food miles. Grocery stores may even disrupt relationships between producers and consumers and increase the confusion associated with various brands and labels. Most of the focus group participants were urban consumers and many of them felt remorseful about the lack of direct contact they had with producers. Accordingly, they rely on the information provided by retailers and other sources. One could argue that rural and urban consumers live in different food cultures and that the word “local” has different connotations for each group. Buying local is perhaps easier for those consumers who have historically had farmers or producers included in their personal social networks. On the other hand, not all rural consumers have direct producer contacts, nor do all urban consumers lack those contacts. Still, alienation from rural life was identified, which suggests that urbanization increases the gap between production and consumption realities. Urbanization has happened very rapidly, especially in Finland. In fact, some consumers expressed concern about losing their personal touch with regard to food production and its methods. The subsequent excerpt (Respondent 1) was perhaps the most provocative in describing the gap between urban and rural realities:

It's probably a rather different experience to eat pork in some restaurant or other place where you never have to touch the meat with your own hands. Compare then, going behind some barn yourself to kill that poor pig, and then prepare it so that it is edible. How many of us carnivores or omnivores could actually do that?

Communication was a common theme in all focus group discussions. Retailers were criticized for underestimating the value of providing information regarding food origin. Also, restaurants may sabotage relationships between producers and consumers by diminishing the importance of the origin of food. Some consumers felt that retailers could provide more information about where the food they sell comes from. Respondent 17 makes the following suggestion for retailers:

...and a small tag could be attached to the product, announcing the product is from here or there. Is it from Laukaa, Hankasalmi, Kangasniemi or from some other local municipality? Alas, there is no need for anything else. People will act after that. They just need to see where the product is from.

Typically, respondents did not demand official labels for locally produced food but rather just informal information about the producer. Consumers in this study did not call for institutional branding or labeling schemes for locally produced food, which challenges the findings by Weatherell *et al.* [16]. It would be interesting to study the differences between urban and rural consumers on this issue. Based on the focus group discussions, consumers with rural residency or rural connections seem to have more background knowledge on food production and they are probably less dependant on information provided in packages and supermarkets. Rural consumers know producers personally and trust their

products, whereas urban consumers may prefer a label or an independent externally verified certificate. In Finland, animal rights activists have recently started a media campaign and public discussion concerning the supposed poor treatment of pigs on some Finnish farms. When the supply chain of food is a mystery to consumers, it is difficult to make informed decisions.

The focus groups suggested that various public sector organizations, such as schools and municipalities should purchase more organic and locally produced food. Public organizations and standard-setting institutions also have a responsibility to define criteria for sustainable products and make assessments of sustainability performance. For locally produced food, however, it may be very difficult to establish an external standard or label for effective communication, as Respondent 7 explains:

How to assign borders around local food? Should it be 35 or 42 kilometers? There will be somebody who is exactly 42.5 kilometers away, one-way, from that shop.

In general, standard setting by public authorities (e.g., defining the criteria for locally produced food), was viewed as a difficult and rather challenging task. As discussed previously, official labels for locally produced food were not seen as a necessity in the focus groups. When production and consumption occur in the same regional area, the physical proximity of producers and consumers may provide a better foundation for trust. Such trust decreases as products are exported to other areas and the physical distances between the producers and consumers increase. On the other hand, the “fair trade” label provides a successful example of connecting southern producers and northern consumers.

Principles and values related to locally produced food gain support from consumers but in actual purchasing, decision-making and behavior, those values seem to diminish. Current hectic and busy lifestyles can be a barrier to buying locally produced food. It is assumed that locally produced food requires a commitment to buy from local producers, which may be understood as a sacrifice of freedom among some consumers. Convenience was the most commonly mentioned reason for choosing regular retailers. In the following dialogue, Respondent 3 refers to the irregular lifestyle of a typical couple:

Those food circles are really quite lovely. Ideally, you could just order some known quantity weekly or monthly. I have familiarized myself with the whole ecology thing. But then, it is really quite irregular. At least our life is.

Current lifestyles and hectic daily schedules were seen as driving forces for the emerging supermarket culture. Focus group participants perceived local food as being time-consuming, as it takes more time to locate products due to dispersed distribution channels and it may take more time to prepare, due to fewer processing steps. All in all, local food seems to require more learning, patience and a greater respect for ‘slow’ food. Based on the results, it appears that price is not the main restricting factor for purchasing locally produced food as Roininen *et al.* [18] suggested but rather a lack of time is to blame. This issue should be studied in more detail by comparing different socio-economic consumer groups.

The next excerpt (Respondent 10) illustrates the elements of taste, freshness and prompt delivery of locally produced, organic food:

Sometimes when I eat meat at work, for example, the taste is considerably worse. Additionally, I get the meat from my brother so quickly. It's 30 kilometers to the butcher, and I receive it fresh and immediately. And it is so good!

The excerpt conveys the importance of social relationships in the context of locally produced food. Typically, consumers are not willing to travel long distances to purchase food but to make a purchase in combination with a family visit (brother) or other social visit makes the trip worthwhile. However, urban consumers increasingly have fewer relatives who work as agricultural producers. Based on the focus group results, rural connections or a rural childhood may possibly explain positive perceptions towards locally produced food.

6. Conclusions

In conclusion, this study has identified a number of consumer sustainability perceptions regarding locally produced food supply chains. The focus group method used in this study enabled subtle nuances in expression and meaning to be uncovered from the transcripts. Theoretical conclusions suggest that socio-cultural dimensions of sustainability should receive more attention in the academic studies of locally produced food, because it seems to be a very important dimension for consumers. The supply chain of locally produced food is really a network rather than a linear chain. Hence, network theories might provide a more appropriate framework for studying locally produced food as a socially complex system. Conventional supply chain theories are probably more appropriate in the studies focusing on global or national food supply chains. As Edwards-Jones *et al.* have noticed, consumers have a multidimensional concept of quality, including a range of social factors relating to the traditions and experiences of people in the local food chain [22]. It also appears that environmental dimensions of sustainability are closely related to human health in the context of locally produced food. Hence, the relationship between the environment and human health could be further elaborated upon. Managerial implications depend on theoretical conclusions, suggesting that producer networks, producer-retailer networks and producer-consumer networks of locally produced food should focus more on the socio-cultural aspects of food in all phases of the supply chain network. The development of local food networks requires direct personal relationships with producers, social networking and consumer education focused on a retro-innovative food culture that promotes respect for quality food and haste-free buying, cooking and eating. The battle between global and local food seems essentially to be a battle of trust between widely recognized standards and familiarity based on proximity and personal contacts. In the end, locally produced *and* organic production in combination was seen as the most preferable option from the consumer's point of view.

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