



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Claudia DELICATO*, Martin COLLISON**, Iryna MYRONYUK***, Tayisiya SYMOCHKO*** and Nadiya BOYKO***

Is Local Better? Consumer Value in Food Purchasing and the Role of Short Food Supply Chains

This paper investigates the current research on how consumers select the foods they buy and how they define 'quality'. Consumer decisions are complex and whilst a few consumers prioritise local above all other factors when selecting food, for most local is simply one of multiple factors which influence the food choices they make. Short Food Chains are not necessarily local but are based on supply chains with fewer steps in the chain from producer to consumer. Short Food Chains ensure that more of the value of the food is returned to producers and allows consumers to have a more direct connection to where and how their food was produced. Short Food Chains tend to exhibit features which consumers increasingly value, whether these be traceability and provenance, organic, familiarity, tradition or a connection to a specific place and culture. These strengths of Short Food Chains suggest that there is real potential to see major growth in this sector in the coming decade. As Kotler observed, you have to sell to the pocket, the heart and the soul and, in the food sector, embracing Short Food Chains can help producers to do this.

Keywords: SFSCs, consumer behaviour and beliefs, value assessment, quality

JEL classifications: Q13, Q18

* University of Foggia, Department of Economics, Foggia (FG), Italy. Corresponding author: claudia.delicato@unifg.it.

** Collison and Associates Limited, Norfolk, United Kingdom.

*** Uzhhorod National University, Uzhhorod, Ukraine.

Received: 9 April 2019, Revised: 6 July 2019, Accepted: 12 July 2019.

Introduction

Value assessment is a very complex mechanism impacting consumers' behaviour towards all goods and services, and is particularly challenging for 'high involvement' products such as food and drink where the product can be linked to culture, social status, and ethical and environmental concerns. To most people, food is much more than simple sustenance and the wider factors which they consider when making purchasing decisions are complex and constantly evolving.

The way Short Food Supply Chains (SFSCs) can respond to this complexity is the topic of this paper. Numerous studies have tried to create a cohesive single framework for the issues which determine how consumers view the quality of food and thus make purchasing decisions. Studies investigating the process of evaluation that consumers undertake when faced with a food product, affecting their purchase and their relationship to the product have been studied for decades (Cardello, 1995), but constant evolutions in culture, lifestyles and the food chain mean that a single accepted definition is still elusive.

It is nonetheless true that to understand what makes 'quality' products and 'value for money' in the eyes of consumers, is to understand the needs they satisfy. Some trends have been captured in several studies addressing this issue, usually focusing on particular regions, types of product, or different types of consumers. This is also justified by the fact that different types of consumers have different needs: young people often prefer different foods to adults; women might prioritise some products men don't; and to add some more layers of understanding to this narrative, consumers choosing to purchase foods in local markets possess distinctive needs compared to those preferring large retail outlets, also and possibly depending on availability and financial possibilities (D'Antuono and

Bignami, 2012; Aprile *et al.*, 2016). In relation to this point, this paper will focus on findings and observations advanced for and in the SKIN project, which revolves around the role of Short Food Supply Chains (SFSCs) and its potential for producers and consumers. The latter are of interest in this paper, and it will try to understand consumers' motivations in choosing foods, drawing on the needs they satisfy. The paper will end with recommendations for the "local" suppliers, both farmers and primary food producers, to develop short food chains which return a higher value to their businesses.

Definitions of SFSCs

Short Food Supply Chains embrace a wide range of concepts, now briefly presented here. A general definition is provided from the EIP AGRI (2015) which defines Short Food Chains (SFCs) as those systems aiming at creating value by reducing the number of steps in the food chain from producer to consumer. According to the European rural development regulation (1305/2013), a 'short supply chain' means a supply chain involving a limited number of economic operators, committed to co-operation, local economic development, and close geographical and social relations between producers, processors and consumers. It is important to note that this regulation recognises the importance of social relationships between people involved in the food chain and this point is also very important for understanding how collaborative SFSCs operate.

A Commission delegated regulation (11.03.2014) stipulates that support for the establishment and development of short supply chains shall cover only supply chains involving no more than one intermediary between farmer and consumer (Article 11). This definition can be quite constrain-

ing and is still subject to debate, as for example where the farmer sells to a cooperative who then deals directly with a retailer or restaurant on behalf of a group of farmers, or where a local food processor uses all local ingredients to make a regional speciality sold through a retailer, but most consumers still implicitly see these as short as opposed to long supply chains. In practice, some SFSCs have more than one step in the chain, but normally no more than two and must demonstrate that there is full traceability for the consumer and that the supply chain adds value to the farmer or primary food producer.

Over the last few years, more specific variations over the concept of SFSC have been emerging, addressing the different hues they gathered or specialised into with time: for example, Local Food Systems usually address “traditional” members of SFSCs, operating in rural areas not too far from the city; Hyper-Local Food Systems relate to urban farming where products have been produced in the same site used to sell them; lastly, Ultra-Local Food Systems can be described as when producers grow the food they market directly themselves (Crehan, 2018).

Some local food systems have been developed in opposition to or with the explicit intention of replacing the mainstream supply chain. Thus, tending to address and resolve perceived issues and problems with the mainstream food chain, to address concerns about how the mainstream supply chains function and the values, or lack of values, which underpin them. For example, the food products offered in these systems are often organic, or traditional to a territory (Sage, 2003).

The main focus within SFSCs is the relation within its actors, rather than the products generated. Nonetheless, foods in SFSCs will acquire and carry the knowledge, values and meaning, related to the provenance, the manners of production, or the modalities of consumption (as well as all the loci of those) and that information represents the values for the actors involved in the food chain. (Ilbery & Maye, 2005).

Nonetheless, one should avoid estimating the value of SFSCs just on their local placement and action: as Murdoch *et al.* (2000) have noted, there is a risk of “fetishising” the localness. Also, the challenges arising from regional and local promotion are an issue, as their large-scale marketing is contradictory (Brown and Geldard, 2008). Also, among the main barriers to the entrance of local food to the market are definitely the limited amount of research, and the lack of education and training of local farmers and producers so as to meet the required food safety regulations (Martinez *et al.*, 2010).

This paper digs further into the problems related to consumers’ value attachment of SFSCs products. Hence, the next paragraphs will try to identify the values on which consumers focus when selecting foods and how Short Food Supply Chains can respond to these values.

Methodology

This paper is the result of a literature review and the work of the Short Food Chain Knowledge and Innovation Network (SKIN) project, which runs from 2016-’19 to collate, communicate and disseminate good practices to

develop short food chains. The SKIN project has defined SFCs as those food chains where: the consumer and farmer or primary food producer are in closer contact; and the supply chain has fewer steps so more value is returned to the farmer or primary producer. This is consistent with the EU definition.

Since 2016 the project has collected over 160 good practices and examples of innovation in the food chain, which adhere to these two principles from across the member states in the SKIN consortium. The collection of these good practices did not have the intention of being statistically representative of the distribution of the good examples within the European territory, but rather highlights some excellence and leading examples among the operational work of SFSCs and aims to inspire others to follow suit. Practices have been collected from project partners in the researchers’ own countries as well as elsewhere in Europe and worldwide, collectively providing a robust overview of the possibilities and actions through which a farmer, a consumer, or other stakeholders can engage in SFSCs.

Good practices have been categorised according to some fixed parameters such as production and country: nonetheless, the Irish partner Teagasc has created a framework of “Hot Topics” under which to categorise the practices (see Table 1 of Hyland *et al.* in this volume). In addition, the project has run six 2-day Innovation Challenge Workshops (ICWs) which have brought together farmers, food producers, food distributors and consumers with the SKIN consortium members and policy makers. In total these ICWs have involved hundreds of stakeholders to debate the issues which are important in the development of SFSCs.

This paper draws on this evidence which has been collected by collating case studies from the food chain across Europe and integrating these results with the outputs of the Innovation Challenge Workshops held in Belgium, Netherlands, Hungary, Poland, Ireland, Paris and Rome. The project has also collated examples of technical and business process changes which promote innovation in the food chain.

The context of SFSCs

As noted by Sage (2003), Short Food Supply Chains have been finding popular recognition and popularity in several places in the United States and Western Europe, where traditional large retail distribution has long played a significant role. One might reflect on the following: the food and drink industry is the leading employer in European manufacturing with 4.51 million staff (15% of manufacturing employment), is the largest manufacturing sector by value (15.2% of manufacturing turnover: €1.115 trillion in 2015) and has 294,000 companies with SMEs representing 48.1% of turnover. The industry accounted for 13.8% of household expenditure in 2016 (Data & Trends, 2018).

Globally the world is seeing increased demand for food, with reports suggesting this will continue until at least 2050. The reasons for increased demand have been observed especially by the Foresight Report (Beddington, 2011) which predicted that global food demand would rise by 50% by 2030 and 60-100% or more by 2050 (compared to 2010).

The global food retail and food service sector is growing rapidly. The share of consumer expenditure spent on food service varies substantially between rich countries (where it is now similar to food retail) and poor countries where the food service sector is still very small. It is fair to say that food service globally grows as wealth rises. The total food market is worth over \$8 trillion (Plunkett Research 2018), nearly five times the value of the global automotive market - circa \$1.8 trillion in 2017 (Statista, 2019).

Many predictions now suggest the sector will continue to grow until at least 2100 as globally we: eliminate hunger; population growth continues; there are continued increases in wealth, leading to shifting preferences in our diets. This will change both the products consumed and the degree of added value which consumers pay for (e.g. processed foods, catering services).

Current consumers food trends and concerns

Evidence from consumer surveys show that the factors which consumers consider when buying food are changing, but also show significant variation across Europe in important respects which are at the heart of the SFSC debate. This variation in attitudes to food purchasing has also been found during the meetings and workshops held by the SKIN partnership, with significant debate between partners and stakeholders about which factors are the most important when making purchasing decisions.

On some issues there is a relatively large degree of consensus across Europe, for example on the importance of food quality labels at least 63% of consumers say this is important in every country, ranging from 63% in the Czech Republic to 94% in Cyprus (Eurobarometer 2018).

However, the same Eurobarometer report shows that on other factors there is less agreement, for example: in terms of ‘respect for tradition and know how’ in how food is produced, this is an important issue for 93% of inhabitants in Cyprus and 90% in Greece, but as low as 48% in the Netherlands. Even more extreme are the differences on ‘coming from a known geographic area’ which is seen as important to 90% of Italian and 89% of Greek consumers, but only 35% of those who live in the Netherlands.

This diversity of opinions about which factors are important when consumers are making food choices has been a constant theme in the meetings and workshops run by the SKIN project. There are, however, a number of common issues which have been raised by the good practices collected and the participants at SKIN workshops.

For each factor the degree of importance, or how developed this trend is in each country, tends to be a result of local culture, tradition and wider societal factors such as family and economic structures and how open or closed the economy is. This ranges from the very international supply chain stance taken by Dutch consumers in a country whose whole economy is focused on trade and who on most measures are the least concerned about traditional values but the first to embrace new supply chain models, to the much greater focus

on local food supplies found in the Mediterranean countries.

Most consumers across Europe have busier lives than previous generations as modern lifestyles involve more opportunities for recreation, travel and work outside their immediate community and traditional family structures and roles are changing, meaning that new ways to buy food which are more efficient in terms of their use of time are important to many consumers. The importance of time use efficiency has been shown in the growth of convenience food purchases since at least the 1960s and more recently through the increase in online sales. For example, Ecommerce in the EU increased by 15% to €530 billion in 2016 and was expected to grow by 14% in 2017 (Ecommerce Report, 2017). However, in the food chain new online buying and delivery models, better aligned to modern consumer lifestyles, are constrained by digital business models which don’t always allow food to be purchased and delivered at a time and place which the consumer chooses. Many foods also require refrigeration at the point of delivery which makes it hard to deliver to consumers if they are not at home.

The proportion of consumers shopping online in 2016 was highest in the UK (87%), Denmark (84%) and Germany (82%). Statista (2018) states that 7.5% of total global online grocery sales were in the UK and 5.6% in France, but only 0.5% in the similar sized Italian market, which suggests that parts of Europe have substantial potential for growth in this marketing channel. Growth in 2016 was fastest in Central and Eastern Europe with sales in Romania increasing by 38% and by 35% in Slovakia (Ecommerce Europe 2017). The SKIN ICW in Budapest in September 2018 considered these issues and found wide variation between countries in the attitudes towards online sales, with in general the Northern EU states already having high levels of online purchasing and very rapid increases being seen in Eastern Europe, whilst the Mediterranean states had much less developed online markets.

In the UK the Food Standards Agency (FSA, 2018) tracks consumer attitudes to food with a bi-annual survey. They ask both unprompted questions, i.e. consumers volunteer the issues which are of concern to them, as well as answering which issues on a prepopulated list concern them. In relation to unprompted concerns since 2010 this survey has found that consumer interest in food miles is essentially static with all 16 waves of the survey showing that between 2-5% of consumers were concerned by food miles, 3% in May 2018. There is therefore no clear trend in the demand for lower food miles or local food and so we can conclude that food miles, i.e. proximity of the production to the point of consumption, have not increased as a purchasing factor for UK consumers.

Animal welfare is one area in which UK consumers have become more interested. From 2010-’11 to 2017-’18, concerns about animal welfare in the food chain rose from 5% to 10%. The reasons for this change are complex, but media stories and high-profile prosecutions due to poor animal husbandry are believed to be part of the reason. Recently the rapid growth in veganism is part of a similar trend in consumer concerns, with many reports from a range of markets including the US, UK, Portugal showing veganism rising by 400-600% in the last decade (Food Revolution Network, 2018). Whilst still only 1-6% of consumers in most developed countries identify as Vegan, the market is expected to continue to grow.

Diet and health are also growing concerns across many EU countries, having been exemplified by government and marketing campaigns (Story *et al.*, 2008; Mensink *et al.*, 2012; Hieke *et al.*, 2016). Trends towards healthier food purchasing attitudes amongst consumers have been observed widely in the EU, even if the correlation between health and diet is complicated by the significant role that other factors play in health risks, such as serious illness or environmental pollution (EUFIC, 2006). Moreover, diet is starting to be recognised as a personal choice and way in which consumers can embrace a modern lifestyle, with the consumption of local food often playing a key role.

Understanding the importance of the microbiome can represent a great opportunity for SFSCs as they could take the lead in promoting personal health. New emerging approaches based on understanding the microbiome can investigate the role that food origin has on its nutritional value and unique composition since different foods affect different people in different ways (Boyko *et al.*, 2014).

This is likely to lead to new trends in food consumption for local food based on evidence of the impact these foods have on personal health. The development of personalised diets will potentially use IT tools accessible to large sections of society.

In the UK the FSA (2018) reports that concerns about fat and salt levels in food have risen from an average of 7.5% in 2010-'11 (waves 1 and 2) to 9.5% in 2017-'18 (waves 15 and 16). Concerns about sugar have risen even faster, from an average of 6.5% in 2010-'11 to 14.5% in 2017-'18 (having peaked at 18% in May 2016).

Clearly concerns about sugar have become much more important, arguably due to campaigns in the media and the introduction by the UK government of a Soft Drinks Industry Levy (HM Treasury 2016), colloquially known as the 'Sugar Tax', which was announced by the UK government in 2016. The clear alignment between the peak in interest in this topic in summer 2016 coincides with media interest and the announcement of the 'Sugar Tax' by government. The UK government is increasingly focusing on the impact that dietary choices have and in January 2019 launched a consultation on restricting the promotion of foods high in fat, salt and sugar (Department for Health and Social Care 2019).

In the US, the obesity epidemic now affects 34.9% of the adult population. The UK has seen only very minor progress in the 5 a day campaign with only 30% of adults achieving the recommended 5 a day portions of fruit and vegetables in 2012, despite the programme having been started in 2002. The government has instead begun to focus on manufacturers to adopt healthy food, with some successes, notably in the agreement to reduce salt in food (Food Standards Agency, 2015). Obesity and its comorbidities are not simply linked to over-nutrition, i.e. high calorific intake (Witkos *et al.*, 2008), but most importantly coincide with a condition of malnutrition in general. As observed by Stuckler *et al.*, (2012) poor diets are those giving too much of energy-dense as well as nutrient-poor foods.

Whilst SFSCs in themselves do not directly guarantee that consumers will adopt healthier diets, by reconnecting consumers with the source of their food, consumers are taking a much closer interest in the food choices they are making.

The evidence is in fact that the more industrialized our societies become, the greater are the possibilities for citizens to live in "food deserts", i.e. geographical locations where choice for healthier foods "is either non-existent or too expensive" (Reynolds, 2005). The positive outcomes of healthy patterns of eating from SFSC is expressed through community supported agriculture (CSA) and similar local schemes, as seen in the SKIN ICW in Paris in spring 2019, as they show consumers starting to opt for healthier food choices.

Specialist foods with added value e.g. sports food, age related foods (for the old and young) are growing in importance with Kerry Group in Ireland investing €100m in an R&D Centre near Dublin alongside the Irish government and other commercial partners to create Food for Health Ireland (Starling Shane, 2015). Across the world policy is increasingly focused on educating consumers on the benefits of a healthy, normally plant based, diet with restricted meat and dairy. Choosing fruit and vegetables in season can also be healthier than buying them throughout the year. Consumers themselves can also promote health through a diverse diet, thereby increasing the demand for local products. Individual farmers can, in turn, adapt plants which are suited to specific soil and climate conditions to withstand diseases and pests and provide consumers with high-quality products, which can potentially be produced with less inputs (Norberg-Hodge *et al.*, 2002).

As a result, to this increasing concern, the food industry is now embracing changes in this area, with many companies from both the food and medical sector embracing investments in health food. Reports suggest the global health food market could reach £220 billion by 2017 or circa 5% of the global food market (Leaver, 2014). The more specialist nutraceuticals market (foods with specific health promoting characteristics) is estimated to be growing at 7% per annum to reach €35 billion by 2020 (NUTRA, 2015).

A contrasting trend is the coexistent increasing tendency for convenience foods and eating out (Markman, 2018). These trends are potentially correlated, as eating out does not require cooking and food preparation, factors that might encourage especially younger generations to embrace both trends. The growth of new types of packaged foods, such as fruit pots and other similar convenience products, shows that busy lifestyles encourage consumers to outsource what many see as the drudgery of food preparation. Eating out is not only convenient, but also underlines that a great component of the new food culture is in the constant need for novelty, whether this includes healthier, vegetarian, free from, exotic, traditional, food. It has been discussed recently, that millennials are a "Foodie" generation (Pinsker, 2015) and whilst convenience and eating out on the go has been growing for many years amongst other consumer groups, Robinson (2015) even identified that 'Foodies' are also now interested in convenience. Eating out is also a key component of culture and a core part of leisure and tourism and the food service industry has continued to expand as consumers travel more.

Concerns about food waste have also seen a steady upward trajectory, with the early 2000s before the global economic slowdown showing very low rates of concern amongst most consumers. However, following the global

economic downturn interest in food waste increased, anecdotally at this time mainly due to concerns about the costs of food waste when family budgets were under pressure. More recently, food waste has continued to become a more important issue for consumers due to concerns about the impact of food waste on the environment, with food waste being reported as a concern by 12% of UK consumers in May 2018 compared to only 3% in 2008 (FSA, 2018). In response in December 2018 the UK produced a new Waste and Resources Strategy (DEFRA, 2018), which identifies issues in the food chain, including plastics, as a key target for action. In this case it was arguably public opinion which led to government action, with the Blue Planet programme (BBC, 2017) on plastic waste in the oceans, first shown in November 2017, identified by most commentators as a key turning point in the debate on food waste. SFSCs can make less use of packaging and food waste also related to the packaging addressed before (Maye and Kirwan, 2010; Goodman et al., 2012; Lamine et al., 2012). In the SKIN project 1 good practice in every 10 contributes to mitigating its environmental footprint by reducing or directly working on food waste. For example, “Hut und Stiel” in Vienna makes use of spent coffee grounds for its mushroom production.

Concerns for food waste also reflect a broader environmental debate for which SFSCs can impact positively. Traditional food chains for example contribute to higher demands for water and energy, the first projected to rise by 30% by 2030, and energy by 45% by 2030 (Foresight, 2011). The food chain currently uses 70% of global fresh water abstraction and by 2035 47% of the global population will live in water stressed locations. The food chain is responsible for about a third of global greenhouse gas emissions, from agriculture (15.2% including energy use), through the conversion of land to farming (12.2%) (World Greenhouse Gas Emissions, 2005), the food industry (1%) and further emissions associated with food transportation and distribution. Conversion of land to food production is also responsible for over half the loss of biodiversity we are seeing globally (WWF, 2018). Nearly half the loss of mammals, birds and reptiles (45-49%) is due to habitat loss due to conversion of land to other uses, with agriculture the largest user of land created by clearing native forest and natural land.

A key challenge for SFSCs is that local production or shorter chains do not guarantee that environmental impacts are reduced and, in some cases SFSCs may increase environmental impact if they lead to less optimal production processes or more emissions in the supply chain. Logistics in particular for established ‘longer’ supply chains (in terms of distance) tend to have a low environmental footprint for greenhouse gases (GHGs) per kilo of food, because transport tends to utilise large vehicles which are very efficient per kilo of food transported. Even allowing for much longer distances, this imposes a lower GHG footprint than hundreds of consumers driving out from a town to purchase food direct from a farm. This is because each consumer will only buy at most a few kilos of product and so thousands of car journeys are undertaken compared to the food which can be transported by one lorry.

Further work is needed to model the GHGs associated with different distribution systems and, until this is under-

taken, SFSCs have to be very careful about the unsubstantiated claims many make about their lower environmental impact. The SKIN ICWs looked at this issue and whilst many SFSCs actors claimed they had a lower environmental impact, none had the data to back up this claim.

The range of factors which impact on consumer food choices is now clearly very large and continuing to grow as new issues, such as food waste and plastics, come into sharp focus for consumers. It is against this complexity that food producers have to market their products. Therefore, a clear challenge for SFC producers is how they can use the core values of SFCs and the characteristics of their products to respond to and attract consumers to their products when these consumers make such complex and multi-factor choices when choosing food.

Building value in SFSCs

Whether local or a short food chain is “better” is a very contentious issue in the food chain. For hundreds of years, the trend has been for supply chains to lengthen both physically and in terms of their complexity, adding more stages between the farm and the consumer. Entrepreneurs in the process increased the value in the food chain through processing, distribution, storage and marketing to meet the needs of an increasingly urban population (Norberg-Hodge *et al.*, 2002)

The trend towards longer supply chains was largely due to improved transportation and thus the ability, based on the principles of comparative advantage, for different regions and countries to focus on the food and drink products to which they were most suited due to their soils, topography and climate e.g. olives in Italy, Champagne in France, beef in Ireland and lamb in Wales. This increased production efficiency, but had the result that supply chains lengthened, became more complex and consumers lost their connection with producers (Renting *et al.*, 2003). It is true nonetheless that SFSCs have been gaining increased popularity because of both consumers and producers’ interests in the last few years. The former began to wish to reconnect with the source of their food and started opting to purchase through shorter supply chains; whilst, farmers and primary food producers have recognised that they could increase their share of the final consumer value if they reduced the number of steps in the food chain (EIP Agri, 2015).

The observation on the trends for the food industry as discussed above need to be aligned with the rising attention given to SFSCs. A Special Eurobarometer published by the European Commission’s in 2018 has brought to light that 31% of respondents value as “very important” the fact that the food products respect local tradition and “know-how”; the same percentage values similarly the fact that foods come from a geographical area known to them. Despite these traits not solely being the preserve of SFSCs’ products, they are often associated closely with those product characteristics (Kneafsey *et al.*, 2015).

As observed by Sage (2003) significant work of SFSCs relate to the provenance, traceability and safety attributed to the final products resulting from SFC producers. Rent-

ing *et al.* (2003) have developed the values that foods under SFSCs gain in two dimensions: the first linked with the place of production, under which food products gain regional or artisanal characteristics such as Protected Denomination of Origin (PDO), Protected Geographical Indication (PGI), fair trade, traditional foods. Another dimension is linked with the production process that gives the product its special status such as organic, natural, free-range, GMO free, etc. denominations. Renting *et al.* (2003) acknowledge that in the lenses of SFSC, consumers usually attribute both geographic and production characteristics to the foods purchased, thus looking for hybrids which can deliver both.

Positive impacts of SFSCs are not only manifested in the final products, but also throughout their operation and existence. Short Food Supply Chains increase the interaction and connection between producers and consumers, reinforcing the notions of social capital. They amplify the sense of community, and deepen knowledge and behavioural change (Kneafsey *et al.*, 2015). As a result, values such as trust become a strong component of these food systems, as identifiable producers and consumers become main actors in the chain (Sage, 2003). This in turn fosters the sense of political and market governance significance expressed by SFSCs (Whatmore *et al.*, 2003).

The SKIN project visited Appelen Roes during its ICW on Fresh Products in Belgium and the Netherlands in April 2018. This business has developed a very strong local community connection, including hosting 30,000 visitors per year including many school groups, since it moved over to direct sales to consumers in 2004. A producer of apples and cherries, it has an on site farm shop, two further collaborative shops in local towns and processes its fruit into juice. The owners reported that a key factor in their success was the trust which they have built up with consumers who can visit the farm and see exactly how the fruit is produced. SFSCs are also seen as a key enabler of rural economic growth in many regions and for this reason have featured strongly in the Local Development Strategies adopted by many LEADER local action groups.

Food trends and SFSCs: a point in between

From the analysis reported above, it appears clear that SFSCs do deliver qualities and values appreciated by consumers; but also, that the food industry is a demanding, fast changing environment and such localised, alternative food systems must be able to keep up with the wider innovations and changes consumers are looking for in order to grow or even to continue to thrive.

The good practices collected throughout the SKIN project display both the necessity for consumer to turn to SFSCs and the needs satisfied by those. Examples range because of countries and types of food products dealt with: nonetheless, they give a further insight on the different adaptation to and from the local needs for the use of Short Food Supply Chains.

It emerges that SFSCs gained success because of the experience of the local food market, rather than the sole

characteristics of the food itself, as noted by Smithers *et al.* (2008). Hence, SFSCs are able to “marketise” themselves, and increase in popularity not only because of products’ characteristics. However, recognizing such popularity as a trend underlines the fragility of such food systems once more popular systems are preferred by consumers. This fragility is particularly acute when major changes are taking place in how consumers buy food, e.g. online purchases and eating out, because these changes are driven by larger societal changes to which SFSCs producers will have to respond if they wish to remain relevant.

For example, a further key challenge for the local food chain which may restrict its ability to become the majority of the market might be represented from the values it embeds. The long-term trend to more specialised regional food production has been driven, as noted above, by both a desire to concentrate specific products in the areas most suited to them e.g. dairy in Ireland and Vineyards in Italy, and the availability of fast efficient distribution systems. But if technology allows consumers to get to know these products and demand for these products increases elsewhere in the world, SFSCs might fail if this reduces the environmental benefits of specialisation and they become seen as less optimal food choices.

An interesting example of the tensions in relation to ‘local’ food as key issue in SFSCs was presented by a specialist cheese business in Galway on the West coast of Ireland which the SKIN project visited in spring 2017. This business, Sheridan’s Cheesemongers, specialises in supplying cheese from its region and complements the cheese with its own cheese biscuits. Whilst they are promoted as a local and regional specialist food company, with their own shop and distribution networks in the West of Ireland, they stated that their single largest market was in London in the UK. This encapsulates the tension in ‘local food’, on the one hand they are branded as a specialist local food company, but this branding also makes them a very attractive source of premium food to markets much further away, in this case in another country.

In conclusion, the issues which motivate consumer food choices are constantly changing. Promoting local food on its own is not enough to grow the market, because whilst “local” is an important factor for some consumers, other factors which affect consumers’ purchasing decisions have been increasing in importance more rapidly.

SFSC and specifically local food producers throughout Europe therefore also have to consider these other factors to ensure their food products remain relevant to consumers. Despite the fact that the tendency for consumers to be interested in purchasing local production is increasing, factors such as health, concerns about waste and a desire for convenience are arguably even more important for most consumers.

SFSCs also still need to overcome some big problems, notably around: capacity and infrastructure; lack of access to local producers; logistics and information, to make it easy for more consumers to buy from them. Many consumers, in spite of their tendency to agree with all the values which SFSCs promote, continue to choose supermarkets instead of buying local products due to the influence of other factors which affect their food choices such as time and accessibility.

Another problem is the lack of knowledge which many farmers and primary food producers have about business strategy, consumers, market trends and distribution methods. Unless these factors which restrain the deployment of SFSCs and local products are addressed, SFSCs are unlikely to fulfil the potential which their ability to simultaneously appeal to the pocket, the heart and the soul allows. This would be a missed opportunity for SFSCs and this paper concludes that SFC producers should think broadly about, and base their marketing on, how their food and drink products can meet the full range of factors which consumers consider when buying food, rather than just focusing on their location as though this is the only factor which is important to consumers.

Conclusions

This paper has provided an overview of the current food scenario in relation to Short Food Supply Chains, and the process undertaken by the consumers to relate their values to SFSCs' products, actors, and activities. It concludes that SFSCs need to remain flexible and responsive to new food and consumers trends, and ensure they have the capability of marketing themselves effectively in changing contexts.

Another key message from the good practices and visits to producers undertaken by the SKIN project is that consumer expectations vary across Europe and between different communities. An approach which works in one location is not always easy to transfer to other areas.

SFSC actors also need to focus on factors which they can prove, e.g. food provenance, but need to be more cautious on other issues such as environmental impact where the evidence is much more nuanced and mixed. As Philip Kotler observed in many of his books, you have to sell to the pocket, the heart and the soul and, in the food sector, embracing Short Food Chains can help producers to do this, but consumers will only continue to buy from SFSCs if these supply chains deliver value.

The evidence from the SKIN project is that the best SFSC actors are very clear about their value proposition and do not try to claim that they are better than the alternative mainstream food chain in every way, because this is not true or able to be proven. Instead they tend to focus on their clear point of difference, which is normally the enhanced provenance and traceability they can provide, in turn improving trust in their food. At present this factor of provenance, traceability and trust is in the ascendancy in the mix of factors which consumers consider when choosing food and this suggests that SFSCs can continue to grow their market share.

The SKIN project ending in September 2019, will provide further considerations for SFSCs on how to reach more consumers (or not lose any) while having fewer steps in the chain from producer to consumer, in many cases remaining local, traditional, and most importantly, of value.

Conflict of interests

The authors have no conflicts of interest to declare.

Acknowledgements

The topic covered in this paper is part of the SKIN project (www.shortfoodchain.eu). This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement N. 728055.

References

- Aprile, M.C., Caputo V., Nayga Jr, R.M. (2016): Consumers' Preferences and Attitudes Toward Local Food Products. *Journal of Food Products Marketing*, **22** (1), 19–42, <https://doi.org/10.1080/10454446.2014.949990>
- Beddington, S.J. (2011): Future of Food and Farming: Challenges and choices for global sustainability. Final Project Report. The Government Office for Science, London, United Kingdom.
- Boyko, N., Bati V., Petrov V., Markush N., Levchuk O., Sarvash O., Khablo T. (2014): Personalized Nutrition, Microbiota/Inflammation Balance in Successful "Biotics" Implementation for the Prevention and Control of Diet-related Diseases. International Scientific Conference on Probiotics and Prebiotics IPC2014, Budapest, Hungary, 24th-26th June 2014.
- BBC (2017): Blue Planet 2: How plastic is slowly killing our sea creatures, fish and birds. Retrieved from BBC website <http://www.bbc.co.uk/newsbeat/article/42030979/blue-planet-2-how-plastic-is-slowly-killing-our-sea-creatures-fish-and-birds>
- Brown, H. and Geldard, J. (2008): Supplying Local Food to Mainstream Customers. Market Drayton, Westley Consulting.
- Cardello, A.V. (1995): Food quality: Relativity, context and consumer expectations. *Food Quality and Preference*, **6** (3), 163–170. [https://doi.org/10.1016/0950-3293\(94\)00039-X](https://doi.org/10.1016/0950-3293(94)00039-X)
- Centre for Disease Control and Prevention (2014): Overweight and Obesity Facts. Retrieved from Centers for Disease Control and Prevention website <https://www.cdc.gov/healthyschools/obesity/facts.htm>
- Crehan, P. (2018): Foresight scenarios on unlocking the bottlenecks (M18) as an input to community animation. Short Supply Chain Knowledge Innovation Network (SKIN), Deliverable No D3.4.
- D'Antuono, L.F. and Bignami, C. (2012): Perception of typical Ukrainian foods among an Italian population, *Food Quality and Preference*, **25** (1), 1–8. <https://doi.org/10.1016/j.foodqual.2011.12.003>
- Data & Trends (2018): EU Food & Drinks Industry. Food Drink Europe. Retrieved from https://www.fooddrinkurope.eu/uploads/publications_documents/FoodDrinkEurope_Data_and_Trends_2018_FINAL.pdf
- DEFRA (2018): Resources and waste strategy: at a glance. Retrieved from UK Government website <https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england/resources-and-waste-strategy-at-a-glance>
- Department of Health and Social Care (2019): Restricting promotions of food and drink that is high in fat, sugar and salt. Retrieved from UK Government website <https://www.gov.uk/government/consultations/restricting-promotions-of-food-and-drink-that-is-high-in-fat-sugar-and-salt>
- EIP AGRI (2015): EIP-AGRI Focus Group - Innovative Short Food Supply Chain management. Retrieved from https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_fg_innovative_food_supply_chain_management_final_report_2015_en.pdf
- EUFIC (2006): Food safety: perception of risk amongst European consumers. EUFIC. Retrieved from <https://www.eufic.org/en/food-today/article/food-safety-perception-of-risk-amongst-european-consumers>

- Eurobarometer (2018): Europeans, Agriculture and the CAP, Eurobarometer Special Report 473, December 2017
- European Commission (2018): Europeans, Agriculture, and the CAP. Brussels, Belgium.
- European Parliament and of the Council (2013): On support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No. 1698/2005. Official Journal of the European Union, L 347/487
- European Commerce Report (2017): Ecommerce Foundation, Retrieved from <https://www.ecommercefoundation.org/free-reports>
- Food Revolution Network (2018): Why the Global Rise in Vegan and Plant-Based Eating Isn't a Fad. Food Revolution Network. Retrieved from <https://foodrevolution.org/blog/vegan-statistics-global/>
- Food Standards Agency (2018): Biannual Public Attitudes Tracker, Wave 16 (and time series data from earlier waves) <https://www.gov.uk/government/statistics/fsa-bi-annual-public-attitudes-tracker-results-for-may-2018>
- Foresight (2011): The Future of Food and Farming. Final Project Report. The Government Office for Science, London. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/288329/11-546-future-of-food-and-farming-report.pdf
- Goodman, D., DuPuis, E.M. and Goodman, M.K. (2012): Alternative food networks: knowledge, practice, and politics, Routledge.
- Hieke, S., Kuljanic, N., Fernandez, L., Lähtenmäki, L., Stancu, V., Raats, M. M., Egan, B., Brown, K., Trijp, H., Kleef, E., Herpen, E., Gröppel-Klein, A., Leick, S., Pfeifer, K., Verbeke, W., Hoefkens, C., Smed, S., Jansen, L., Laser-Reuterswärd, A., Korošec, Živa, Pravst, I., Kušar, A., Klopčič, M., Pohar, J., Gracia, A., Magistris, T., & Grunert, K. G. (2016): Country Differences in the History of Use of Health Claims and Symbols. *European Journal of Nutrition & Food Safety*, **6** (3), 148–168. <https://doi.org/10.9734/EJNFS/2016/20758>
- HM Treasury, HM Revenue & Customs, and Department of Health and Social Care (2016): Soft Drinks Industry Levy: 12 things you should know. Retrieved from UK Government website <https://www.gov.uk/government/news/soft-drinks-industry-levy-12-things-you-should-know>
- Ilbery, B. and Maye, D. (2005): Food supply chains and sustainability: evidence from specialist food producers in the Scottish/English borders. *Land Use Policy*, **22** (4), 331–344. <https://doi.org/10.1016/j.landusepol.2004.06.002>
- Kneafsey, M., Venn, L., Schmutz, U., Balázs, B., Trenchard, L., Eyden-Wood, T., Bos, E., Sutton, G. and Blackett, M. (2013): Short Food Supply Chains and Local Food Systems in the EU. A State of Play of their Socio-Economic Characteristics, Brussels.
- Lamine, C., Renting, H., Rossi, A., Wiskerke, J.S.C. and Brunori, G. (2012): Agri-Food systems and territorial development: innovations, new dynamics and changing governance mechanisms. In: Darnhofer I., Gibbon D., Dedieu B. (eds) *Farming Systems Research into the 21st Century: The New Dynamic*. Springer, Dordrecht
- Leaver, H. (2014): Companies growing fat as you slim: The growth of the weight loss market. Metro, Retrieved from <https://metro.co.uk/2014/01/30/companies-growing-fat-as-you-slim-the-growth-of-the-weight-loss-market-4282903/>
- Markman, J. (2018): Feast on Millennials' Love of Restaurants. *Forbes*, Retrieved from <https://www.forbes.com/sites/jonmarkman/2018/07/30/feast-on-millennials-love-of-restaurants/#4f896ea368f9>
- Marsden, T, Flynn, A. and Harrison, M. (2000): *Consuming Interests: The Social Provision of Food*. London: UCL Press
- Martinez, S., Hand, M., Da Pra, M., Pollack, S., Ralston, K., Smith, T., Vogel, S., Clarke, Sh., Lohr, L., Low, S., Newman, C. (2010): Local food systems: concepts, impacts, and issues, MPRA Paper 24313, University Library of Munich, Germany.
- Maye, D. and Kirwan, J. (2010): Alternative food networks. *Sociopedia*.
- Mensink, F., Schwinghammer, S.A. and Smeets, A. (2012): The Healthy School Canteen programme: A promising intervention to make the school food environment healthier. *Journal of Environmental and Public Health*, Article ID 415746. <https://doi.org/10.1155/2012/415746>
- Murdoch, J., Marsden, T. and Banks, J. (2000): Quality, Nature & Embeddedness: Some Theoretical Considerations in the Context of the Food Sector. *Economic Geography*, **76** (2), 107–125. <https://doi.org/10.1111/j.1944-8287.2000.tb00136.x>
- NUTRA (2015): In the year 2020: Global nutraceuticals market to be worth €35billion. NUTRA Ingredients, Retrieved from <https://www.nutraingredients.com/Article/2015/08/10/In-the-year-2020-Global-nutraceuticals-market-to-be-worth-35bn-7-annual-growth-forecast>
- Norberg-Hodge, H., Merrifield, T. and Gorelick, S. (2002): *Bringing the Food Economy Home: Local Alternatives to Global Agribusiness*. Boulder, Colorado: Kumarian Press.
- Pinsker, J. (2015): Why Are Millennials So Obsessed With Food? *The Atlantic*. Retrieved from <https://www.theatlantic.com/business/archive/2015/08/millennial-foodies/401105/>
- Plunkett Research Ltd. (2018): Global Food Industry Statistics and Market Size Overview, Business and Industry Statistics. <https://www.plunketteresearch.com/statistics/Industry-Statistics-Global-Food-Industry-Statistics-and-Market-Size-Overview/>
- Renting, H., Marsden, T. and Banks, J. (2003): Understanding Alternative Food Networks: Exploring the Role of Short Food Supply Chains in Rural Development. *Environment and Planning A*, **35**, 393–411. <https://doi.org/10.1068/a3510>
- Reynolds, J. (2005): Are you living in a food desert? *The Ecologist*. Retrieved from https://www.theecologist.org/archive_detail.asp?content_id=558
- Robinson, N. (2015): Top Five Food and Beverage Trends for 2015. NUTRA ingredients. Retrieved from <https://www.nutraingredients.com/Article/2014/11/20/Top-food-trends-for-2015>
- Sage, C. (2003): Quality in Alternative Food Network: Conventions, Regulations and Governance. Paper presented at Policies, Governance and Innovation for Rural Areas (21–23 November). Università della Calabria, Arcavada di Rende. <https://doi.org/10.1.1.196.5195>
- Smithers, J., Lamarche, J. and Joseph, A.E. (2008): Unpacking the terms of engagement with local food at the Farmers' Market: insights from Ontario. *Journal of Rural Studies*, **24** (3): 337–350. <https://doi.org/10.1016/j.jrurstud.2007.12.009>
- Starling, S. (2015): Europe Needs Innovation: Kerry. Retrieved from <https://www.nutraingredients.com/Article/2015/11/25/Europe-needs-innovation-Kerry>
- Statista, (2018): Share of global online grocery sales based on value in leading European Union (EU) countries in 2017. Statista. <https://www.statista.com/statistics/614717/online-grocery-shopping-in-the-european-union-eu/>
- Statista (2019): Revenue of the leading automotive manufacturers worldwide in FY 2017. Statista. Retrieved from <https://www.statista.com/statistics/232958/revenue-of-the-leading-car-manufacturers-worldwide/>
- Story, M., Kaphingst, K.M., Robinson-O'Brien, R. and Glanz, K. (2008): Creating Healthy Food and Eating Environments: Policy and Environmental Approaches. *Annual Review of Public Health*, **29** (1), 253–272. <https://doi.org/10.1146/annurev.publhealth.29.020907.090926>

- Stuckler, D., McKee, M., Ebrahim, S. and Basu, S. (2012): Manufacturing Epidemics: The Role of Global Producers in Increased Consumption of Unhealthy Commodities Including Processed Foods, Alcohol, and Tobacco. *PLoS Medicine*; **9** (6): e1001235. <https://doi.org/10.1371/journal.pmed.1001235>
- Public Health England (2014): National Diet and Nutrition Survey. Retrieved from the UK Government website <https://www.gov.uk/government/collections/national-diet-and-nutrition-survey>
- Whatmore, S., Stassart, P. and Renting, H. (2003): Guest Editorial: What's alternative about alternative food networks? *Environment & Planning A*, **35** (3), 389–391. <https://doi.org/10.1068/a3621>
- Witkos, M., Uttaburanont, M., Lang, C.D. and Arora, R. (2008): Costs of and Reasons for Obesity. *Journal of the Cardiometabolic Syndrome*, **3** (3), 173–176. <https://doi.org/10.1111/j.1559-4572.2008.00012.x>
- World Greenhouse Gas Emissions (2005): World Resources Institute. Retrieved from <https://www.wri.org/resources/charts-graphs/world-greenhouse-gas-emissions-2005>
- WWF (2018): Living Planet Report - 2018: Aiming Higher. WWF, Gland, Switzerland.