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Business opportunities in local food supply chains: an investigation in England and Australia

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Abstract

There is widespread support from Government, media and consumers for local food networks. The profile of local food buyers and their expectations has been explored and we have some knowledge of its social, economic and environmental contribution. This research contributes by exploring the structure and scope of local food activities. This paper reports on a one year scoping study that examined local food within two contrasting countries, England and Australia. It used a literature review and interviews with key stakeholders to identify the business opportunities that exist in this sector. In conclusion there are many more local food activities in England than in Australia. Further, at a national level in both countries it remains fragmented and confused. However, at a local level there are many successful businesses - farmers markets are the most successful business model in England and Australia, with box schemes also working well in England. The research priorities are to develop a clearer definition of local food as well as exploring the possibility of creating some form of consumer assurance for the 'localness' of foods.

Keywords: local food, business, England, Australia

1. Introduction

As Governments respond to the challenges of encouraging sustainable consumption, within the specific context of a resilient food supply web, the role of local food is increasingly seen as offering a contribution. As well as simplifying the management of food traceability, this shortening of the food supply chain contributes to reducing the environmental impact from food transport. This coincides with the widespread support for sustainable consumption which has emerged as a result of general concerns about the degradation of the natural environment and more recently with our increased awareness of global warming and the potential for rising prices associated with high oil prices. Further, encouragement for local food is coming from government, commercial and charity sectors as well as celebrities, such as food writers and television chefs.

The potential of local food has been recognised for some time in England, with formal recognition as early as 2002 from the 'Curry Commission' (CO 2002). Since then it has increased its presence and is now reported to be around 1.5% of the food market (Brown and Geldard 2008). This growth is in response to consumer demand (Chambers, Lobb et al. 2007) and is likely to be accelerated as a result of recent Government led initiatives such as the £50 million Local Food Consortium (Local-Food 2008) and the £10 million Making Local Food Work (Plunkett 2008) . These will provide an increase in consumer awareness and availability of local food through a series of grassroots projects. Despite this, local food as a concept is still in its relative infancy, without the benefit of well established institutional and policy support. This is in contrast to other 'alternative' food systems, such as organic food, which has developed over the last 50 years into a vibrant niche market of a similar size to the local food market and worth in excess of £2 Billion in England (SA 2007).

In recent times there have been some significant contributions to our understanding of the role of local food. The actual contribution of local food to sustainable consumption has been thoroughly tested. Empirical research has measured the environmental footprint of local food supply chains (Edwards-Jones, Milà i Canals et al. 2008) and research identifying unintended effects and trade-offs of local food production is due to be completed in the near future (Oglethorpe 2008). Two other recent reports have explored how local food may be supplied to mainstream customers through supermarkets and the food service sector (Brown and Geldard 2008) as well as consumers attitudes and purchasing behaviour towards local and regional food (Defra 2008). The consumer perspective has been thoroughly researched with reports covering their behaviour, motivations and expectations (FSA 2003; FSA 2007). However, knowledge of the structure and scope of local food activities in England is minimal, as is the understanding of those successful organisations that exist in the sector. The profile and potential from local food in Australia is even less well known.

This ongoing research is investigating the business opportunities, particularly for farmers, that are emerging in the local food sector. The focus is on the innovative approaches that are being used outside the mainstream multiple retailer supermarket supply chains. Particular emphasis is placed on highlighting the most appropriate local food outlets and the criteria on which the marketing of local food should be based. This paper continues with a review of the literature and is followed by a summary of the methodology used in the research prior to presentation of the empirical results and discussion of their significance.

2. Literature review

Changing land use and customer expectations

Agriculture is one component within an extensive food supply chain. It is also one option in a complex land use system, a system which, amongst other things, also provides non-food products and public good environmental services. This gives rise to a number of political and economic pressures on the agricultural sector. In relation to contemporary political issues, key drivers include food health and food quality. However, they also include environmental concerns as well as animal welfare issues. The main economic pressures stem from population growth and the associated increase in demand for food, as well as the demand for more land for urban and industrial development. In a competitive free market agricultural sector, when there is an increase in production, for example from efficiency gains, there would normally be a change in use of the land resource. For example, large investments in machinery over the last 50 years have contributed to an increase in productivity which, amongst other things, has resulted in a gradual decline in the proportion of labour employed in agriculture. During the same period the proportion of consumers' total income spent on food products has declined as a result of relative increases in per capita income and declines in product prices. It is estimated that 20% of consumer income in England is spent on food, drink and catering, with less than half of this (7.6%) being spent on household based food and drinks (non-alcoholic) (Defra 2008). Additionally, the nature of food demand has changed, with a gradual move away from staple food products towards more food luxuries, such as convenience products.

Agriculture in England

Agriculture is the main land use activity in England (77%), the balance being used for urban settlement, industry, and reserves including woodlands. However, it only makes a relatively modest contribution to overall economic activity (at around 0.5% of economic gross value added). The contribution from the agri-food sector, that is, including food and drink processing and retailing is much more significant (at 7% of gross value added). Similarly employment in both sectors is 1.7% and 14% respectively (Defra 2008). Many local food business models offer an area for farmers to move along the supply chain and hence capture more economic value added and its associated employment. It has been reported that farmers in England are paid less than 40% of the retail value of a basket of staple food purchases(Defra 2008). Local food offers an avenue for farmers to capture a larger proportion of consumer spending on food. This type of diversification may also contribute to bringing young people back into agriculture and hence reduce the dangers associated with the aging farmer population (the average age of agricultural workers, currently at 58 years, is increasing, as is the proportion for whom it is only a part-time occupation, currently around 50% (Defra 2008)).

In terms of the use of agricultural land in England, the majority is used for grass and grazing of livestock (66%), whilst most of the rest is used for cropping (25%) with the remainder (7%) being out of direct production for fallow or set-aside. In relation to livestock in England there are approximately 10 million cattle, 3.5 million sheep, 5 million pigs, and 165 million poultry. In relation to the land used for cropping, about 65% is cereal (wheat 40%, barley 20%, oats 5%), oilseed rape 10-15%, horticulture about 5%, root crops about 5%, and finally pulses about 5% (Defra 2008).

Agriculture in Australia

In addition to the geographic differences in Australia, a large proportion of its agricultural production is exported, in contrast to England who is a net importer. Hence the economic contribution from agriculture is larger (at around 3% of gross domestic product and 4% of employment) (ABS 2008). About 58% of the total land area is used by agriculture with most of this being used for grazing and only 5% for cropping. The balance consists of unoccupied land, reserves and national parks, forests, mining leases and urban areas. In relation to livestock there are almost 30 million cattle, over 90 million sheep (most for wool production), almost 3 million pigs and 80 million chickens. In relation to land used for cropping around half is for wheat (12.7 million ha averaging 2 tonnes per ha) of which 60% is exported. The next biggest being barley at around 15% (4.4 million ha and again at just over 2 tonnes per ha) (ABS 2008).

Opportunities for new business activities in agriculture

In both England and Australia farmers are being encouraged by their respective governments to increase their efficiency in the production of commodity crops as well as to develop other products and services. This includes environmental services such as natural resource management as well as increased participation in the food supply chain. There are a number of ways in which farmers can increase their participation. These include providing niche marketing of a product (e.g. Red Kite Farms Ltd have come up with Organic Slumber Bedtime Milk), the provision of additional services and value adding, from processing basic commodity products on farm (e.g. butchery or milling) through to engaging in retailing (e.g. farmers market or farm shop). One potential growth area which encompasses many of these areas is the provision of local food, an opportunity which is perceived to respond to both the key political demands and the economic pressures within the agricultural industry.

Local food

Local food is an approach where the aim is to reduce the length of the supply chain. As such it may be seen as a new term to describe the way the food chain used to be. In the era before the easy access to relatively cheap transport (which of course still exists in some areas of lesser developed countries) the difficulties of transporting food meant that people tended to eat what they could produce and harvest locally and hence the majority of their food was local. However, today local food is a term that is used to describe a food system that is the opposite of a highly globalised food economy. It describes a direction to be facing, from which steps to create a more localised food network can be taken. As such it is difficult to define local food with a quantitative measure, such as within a particular radius or from a particular region. In part this is because the diet that has evolved in countries like England and Australia includes expectations that cannot be met by local geographic conditions. For example, bananas cannot be grown in England, except with energy intensive glasshouse production, yet they are a major product line for all supermarkets. In addition, it is important to mention that consumer expectations include the year round availability of some seasonal products. For example, most consumers expect to be able to purchase fresh tomatoes throughout the year, when, under natural conditions, they only have a very short growing season in England or Australia.

Local food is seen to have a number of potential benefits. The most important environmental benefit is the reduction in food miles. This is attractive because transport consumes fossil fuels and causes pollution from the 'green house' gasses emitted, the noise produced and the requirement for road infrastructure. This reduction in transport costs may also lead to a

reduction in overall costs. The social benefit may include increased local employment and improved sense of community, which combine to assist in rejuvenating the countryside. In addition to the direct economic benefit to local food business, local communities also enjoy an economic benefit. This is because a greater proportion of the amount spent in local food businesses, as compared with a supermarket chain store, stays within the community and generates other sources of economic activity. This is known as the economic multiplier and, for local food, is reported to be as high as three times the original expenditure.

However, there are also disadvantages from local food, some of which are hidden. One of the major issues is that it diminishes the benefit from comparative advantages in production, where a particular region is able to provide a product at lower economic, and sometimes environmental, cost. Hence the widespread adaption of local food would result in customers in other regions either missing out on being able to purchase the product, or if they do, they will purchase a locally grown product at a higher price and/or having a higher environmental impact. An interesting example is apples and lamb. England is a big importer of apples and lamb from New Zealand. In a recent study it was found that the carbon foot print of in season production and transport from, literally, the other side of the world to England resulted in a smaller energy usage than storage of the English products for six months to allow for out of season consumption (Saunders and Barber 2007). Another interesting tension emerges from considering importing products from lesser developed countries. There is a general trend for Northern European countries, such as England, to import food products from lesser developed countries in the South, mainly from Africa. This was demonstrated when the largest certifier of organic food in England explored the possibility of banning the air freight of fresh products. In the ensuing consultation, it was agreed that airfreight, with its extremely high carbon footprint relative to other forms of transport, would only be allowed when it could demonstrate a clear developmental benefit to the exporting country (SA 2008).

Local food businesses in England

With a market share in excess of 90% (TNS 2007), supermarkets in England are continuing to increase their dominance as the preferred option for household purchases of grocery items. They represent an incredibly efficient logistic network, which is able to source and distribute a huge range of individual products, often over 40 000 in each store. These shops offer relatively low prices and a convenient shopping experience in terms of parking, opening hours and that of one-stop shopping. Despite the fact that only four major supermarket chains control around 80% of the grocery sales it is an extremely competitive market with lots of product innovations and market segmentation. This ranges from premium offerings such as from Marks & Spencer and Waitrose, through to the value proposition offered by Tesco who have the single largest market share at just over 30% (TNS 2007), and the cheaper offers provided by the likes of Asda and Morrisons. As part of their desire to meet changing customer preferences many are publically expressing their desire to increase the 'localness' of their products. For example, the largest grocery retailer in England, Tesco, states that they have over 7 000 local products in their stores and have plans for even more (Tesco 2008). Although it is important to note that they use Britain, which is a rather large geographic boundary, for their definition of local food, it is still interesting that local food is important to them.

The food service sector is also a major and increasing source of food. Its total sales are comparable to those of food products purchased in supermarkets and other grocery retailers (Defra 2008b). Although the amount of food is less due to the higher value added component

in the food service sector. This sector includes the full range of food eaten away from home, such as take-away food, restaurant meals as well as food consumed in institutions. The latter includes schools, hospitals and other publically controlled organisations. Recognition of this fact has led some countries to use Government controlled purchases, or public procurement, to influence the development of supply chains. A notable example is the £17 million Lottery funded Food For Life Program in England. This is creating a network of schools and communities across England who are committed to transforming food culture by improving school meals, reconnecting young people with where their food comes from and inspiring families to cook and grow food. It is interesting to note that to achieve the Gold standard they must, amongst other things, source at least 50% of ingredients locally (FFLP 2008).

Although the majority of grocery sales are through supermarkets, there are others and many of these alternative or non-supermarket food networks, specialise in supplying local food. They are interesting for a number of reasons including the innovations that they have provided, some of which have already been adopted by mainstream players, the 'box scheme' being an example. Originally it was developed as a business model for local diversified horticultural producers to schedule their production and capture retail premiums, however, it now forms the basis of a £20 million national business (http://www.riverford.co.uk/) as well as being offered by all the major supermarket chains.

Some of these businesses focus on selling local products whilst others include local products as a result of their business strategy. There are two particular types of market that only sell local food products, these being Farmers' Markets and Country Markets. Of the 500 or so farmers' markets in England with annual sales in excess of £500 million, over 200 are Certified Farmers' Markets which comply with specific standards. In certified markets the food must be local, which is expressed as a radius, with preference being given to 30 miles [50 kilometres], with up to 50 miles [80 kilometres] accepted for larger cities as well as for remote towns and villages, and 100 miles [160 kilometres] is the absolute maximum. Local may also be considered as a County or geographic boundary that is similar in size to the radius option. Additionally, the products must be grown or reared on the producer's land and the stall must be operated by someone directly involved in the foods' production (FARMA 2008). Country Markets are similar to farmers markets however they provide opportunities for home producers to sell items locally and co-operatively, directly to the public. Their logo is 'home-grown, home-made, hand-crafted' and all perishable foods must be fresh. There are around 400 Country Markets in England with an annual turnover of around £10 million (CM 2008).

Farm shops and box schemes are other types of retail outlets that tend to provide more local food. There are over 1000 farm shops that sell direct to the public in England. Of these, over 50 have passed the FARMA accreditation for quality, service, value and sell only local foods (FARMA 2008). Box schemes are another example of a supply chain that provides local food. Also known as a vegetable box schemes, they are usually run by a farmer who makes weekly deliveries either directly to homes or to a local collection point. All customers receive the same range of seasonal fresh fruits and vegetables in their box, although some include other items such as meat and dairy items. Most of these products are locally grown and often from certified organic farmers. Most urban consumers are able to choose from a number of competing box schemes. Some of these are explicitly local, such as Tolhurst Organics (http://www.tolhurstorganic.co.uk/), whilst others are large businesses, such as Riverford (http://www.riverford.co.uk/) with annual sales in excess of £20 million, 300 staff and delivering 40 000 boxes each week. Many of these have emerged from the organic food

movement and it has been stated that sales through organic box schemes were £95 million in 2005 (SA 2007).

The co-operative business structure, being member controlled and often giving high priority to social aims, is used to provide services varying from social care for the elderly to food retailing. At a national level they are supported through Co-operatives UK (http://www.cooperatives-uk.coop/). Food co-operatives include small operations, such as True Food Co-op (http://www.truefood.coop/) with annual sales of £300 000, to The Co-operative which is a large supermarket chain that has backward integrated into sourcing products from its own farms and has a £10 billion turnover (http://www.co-operative.coop/).

Another approach to developing a sustainable supply chain which removes many of the intermediate stages between producer and consumer is that of Community Supported Agriculture (CSA). These create a partnership where consumers invest in a local farm in return for a share of the harvest. This investment is often in advance, in cash or in-kind through working on the farm. Many CSA's use organic methods and have the additional benefit of reconnecting consumers with the source of their food.

And finally, perhaps the most local food supply chain is where it is grown in a domestic garden or allotment, where the sustainability of the supply chain is measured in 'food feet', rather than 'food miles'. Gardens range from acres of sculptured landscape surrounding a stately home to a window box of herbs in a suburban flat. Gardens have many purposes including recreation and beauty as well as food production. There are numerous organisations that support different aspects of gardening including the Royal Horticultural Society (http://www.rhs.org.uk/) and more specialised organisations such as Garden Organic (http://www.gardenorganic.org.uk/) and the Federation of City Farms and Gardens (http://www.farmgarden.org.uk/). In addition to home gardens, an Act of Parliament over 100 years ago gave the English public the right to an allotment garden. This gives them access to a small area of public land for growing and, according to the National Allotment and Gardeners Trust, in many areas allotment associations have lengthy waiting lists (http://www.nagtrust.org/).

In summary, there are many different businesses that supply local food, each offering different opportunities for businesses and customers. The following section gives a brief overview of the customers who purchase local food.

Local food customers

The attitudes and motivations for consumers to get involved with local food are many. Research from England (FSA 2003) has suggested that it is not just one simple concept, rather, the local food sector embraces various layers of appeal for consumers. Whilst local food of course implies proximity it also carries overtones of small scale, environmentally friendly, artisan craft and a general avoidance of mass production. As such, in relation to foods, is has a particular resonance for fresh products. For those who find supermarket shopping generally convenient but dull, local food buying (except for local food in supermarkets) offers a leisurely and pleasurable alternative. Consequently shopping for local food tends to be sporadic and opportunistic. Local food customers may be segmented into clusters, based on their different motivations.

- Quality: To do with the perceived superior freshness, and taste, of the food.
- Community: Support the local economy and local services.

- Confidence: Knowledge of the foods source or provenance.
- Health: Perceptions being fresh and using fewer chemicals for maintaining freshness.
- Green: Concern for sustainability and the natural environment.
- Pluralist: Having options for food shopping, rather than dominance by supermarkets.
- Enrichment: Diversity of food shopping experiences, including some leisure value (FSA 2003:32)

The Government in England has continued to monitor developments in the local food sector. With its Food Standards Agency and their overarching concern for informed consumer choice, it has recently published results from a consumer survey which asked whether food labelling and other marketing activities of businesses supplying local food products should be regulated, and almost two thirds (62%) felt that it should (FSA 2007). However, how such a local food assurance scheme would work remains unanswered.

The research on local food customers in Australia is minimal. There is one report on farmers markets which profiled the types of markets and categories of vendors and only provided a brief review of customers. The main reasons stated for attending farmers markets was to purchase fresh produce and to support local growers (RIRDC 2005). A second report investigated the extent to which healthy eating patterns in a particular region were linked to the local food production, but did not profile local food customers. And finally, a sociological review of changing food production and eating habits in Australia included consideration of urban agriculture and organic food but did not even use the term local food (Huntley 2008).

3. Method for empirical research

The research involves a multi-stage methodology. In the first stage, a comprehensive literature review was conducted that identified the differing definitions of local food, its current market size, and perceptions of its economic, social and environmental contributions. In the second stage the research aim was pursued using a series of in-depth exploratory interviews with individuals representing key stakeholder organisations in the local food sectors. These interviews were recorded for subsequent transcription which captured the rich diversity inherent in this type of qualitative data. To avoid any confusion, all respondents were asked beforehand for permission to tape record the discussion. In addition to enabling the researcher to concentrate on the interview, it has provided a rich source of data for analysis. This method has the additional benefit of capturing direct quotes which are useful for illustrating the issues when reporting results from the research. However, individual names and affiliations are not identified in any publications.

Due to constraints of time and financial resources, and consideration of the incremental value from additional interviews, it was decided that 10-15 interviews were a realistic target. Further it was decided to seek interviewees from those diverse organisations that are directly involved with the local food sector. This includes National Government, the charity sector, project funders, consultants as well as the different types of local food retail outlets in each country. To date a total of nine interviews have been completed. The interviews in England have encompassed different types of retail outlets (Farmers Markets, Farm Shops), charities supporting local food (Local food links) and project funders (the Local Food Consortium). Whilst in Australia, due to the lack of involvement from the government and charity sector, the interviews focussed on the different types of retail outlet and included Farmers Markets, Co-operatives, and Box Schemes.

The interviews were semi-structured, with the aim of achieving conversation with a purpose. The interview guide included questions that explored the individuals view of the local food sector including the extent to which they have a definition for it, their view on its current structure and size, as well as their perceptions of the values held by local food businesses and the motivations of individuals who purchase local food. Additional questions that explored their organisation and identified exemplar businesses were used when it was appropriate. The discussion of the results from these interviews are presented in the following section.

4. Results and discussion

In England, at a national level, local food has developed into a niche market. Although it has been claimed that it represents 1.5% of the food market (Brown and Geldard 2008), this is, at best, an estimate because in the absence of a widely accepted definition there is the issue of what constitutes local food. If the most stringent definition is applied, that of food grown, processed, purchased and consumed within a radius of 30 miles, then the amount is likely to be much less than 1.5%. If however, it encompasses regional food, that is from one of the nine Regional Development Authority regions in England, then the amount may be as high as 7% (Defra 2007). To take the largest area that is considered by some to represent local food, that of England, then the market-share starts to approach 70%. There are, of course, existing products that use some blends of these geographic concepts in their branding. This may be a geographic feature, such as the Peak District National Park Yoghurt (http://www.peakdistrictdairy.co.uk/), or from a particular county, such as Direct from Dorset (http://www.directfromdorset.org.uk).

Even if the geographic issue was resolved there are other complications. These include the complexity created when considering a definition for local food from multiple ingredient products, multiple sources for the same product, and multiple supply chains for the distribution of a product. These issues have been solved to some degree with the used of carbon labels, such as the example of Walkers crisps (http://www.walkerscarbonfootprint.co.uk/). An alternative to a 'localness' brand for use on individual products is to place the onus of ensuring the localness of products with the retail outlet, as is the case with Certified Farmers Markets (as previously discussed). This suggests that there is scope, and perhaps even a need, for research to explore the possibility of developing some form of consumer assurance for the 'localness' of foods. This could be a label on the product, such as a measurement label like the carbon label, or an assurance label, such as organic certification. In summary, and as stated by many other authors, the development of local food will continue to struggle and gain recognition from both consumers and government until a definition is created.

Further we suggest that at this national level, local food is in a precarious position. This fragile niche is vulnerable on many fronts. In addition to the issue of defining local food, the expectations from various stakeholders are many, varied and sometimes in conflict. Within such diversity it is possible that other issues may rise to prominence for the key stakeholders and hence the local food sector will shrink. For example, the organic food movement, which already embraces many of the benefits associated with local food, could capture current enthusiasm for local food. The significant involvement of the Soil Association Charity with local food in England, through their work with Community Supported Agriculture, provides just one example. The wide application of a carbon footprint label could further erode the status of the local food sector. Another situation that could lead to the demise of the local food sector would be if one of the large stakeholders in the food supply chain, such as a supermarket, developed a niche brand that captured many of the benefits currently associated

with local food. Example could be some combination of 'farmer, environmentally friendly, high quality'.

However, at a community level there are many examples of secure local food activities. These short supply chains have developed loyal customer markets that are independent of national level activities including the difficulties associated with a local food label. The England based True Food Co-op (http://www.truefood.coop/) providing just one example of a business that has continued to prosper over the last few years by providing a range of environmentally friendly, ethical products, with a preference for them being sourced as locally as possible. Food hubs are another community level activity that has developed into successful businesses. These may aggregate local supply for retail customers, as well as offering the same service to wholesale customers who may be involved in larger distribution networks (see for example, Plumgarths Farm Shop at http://www.plumgarths.co.uk/).

In contrast to England the concept of local food is not well developed in Australia. The reasons for this are many. Australia has the modest distinction of being uses by geographers to create a divide, it is simultaneously the smallest continent and the largest island and, more relevantly, over 50 times the size of England but with only 40% of its population. At a national level this gives a population density in Australia of less than 1% of that in England. However, this overlooks the fact that there are extremely large areas of it which are effectively devoid of human population, with over two thirds of the surface area being classified as arid or semi-arid (ABS 2008). Hence other regions, such as the fertile coastal fringe along the east coast, are well populated, with urban centres, such as Sydney, having a population in excess of 4 million. Even with these large urban conurbations local food activities are minimal. Australia has a general abundance of space and an export oriented agricultural sector that also provides relatively high quality food at reasonable prices. Further, as the government tends to favour market based solutions rather than direct control and support, it is likely that local food will never receive attention at a national level.

However, there is one source of local food that receives much less attention than its relative size and potential impact would indicate. Gardening, whether in an allotment, community garden or at a private residency, is perhaps the ultimate in local food. Its contribution to food supply varies according to particular products, with some being quite significant, for example, the market share of fruit and vegetable production in Australia has been estimated at 4%. Although the scope for selling garden produce are limited, there are opportunities for businesses to supply the inputs to gardening, such as Garden Centres. At a national level, perhaps the greatest contribution from gardens is their contribution to food security and food democracy, whilst at a personal level it relates to healthy recreation.

5. Conclusion

This investigation of local food in England and Australia has identified many different business opportunities. In general, although there are many more local food activities in England than in Australia, at a national level in both countries it remains fragmented and confused. It would seem unlikely that a plausible local food labelling scheme will be devised and hence we will see a continuation of branding which either identifies the source of the product, such as Direct from Dorset, or identifies a specialised retail outlet that only supplies local food, the most developed example being Certified Farmers Markets.

However, local food offers a sustainable differentiation strategy for many businesses, both small and large. There is no generic model for these businesses as each tends to focus on promoting one or two key perceptions associated with local food that are appropriate for their target customer group. Farmers markets are the most successful business model in England and Australia, with box schemes also working well in England. These are also considered to be the most likely to prosper over coming decades and ultimately have a noticeable impact at the national level. Other businesses, such as farm shops, Co-operatives, and Community Supported Agriculture, seem to rely heavily on the passion and commitment from individuals in their immediate area. Further, the huge social capital requirements of these businesses tend to make them vulnerable to changes in their leadership teams. As supermarkets, and to a lesser extent the food service sector, are likely to dominate the food supply chain for the foreseeable future, it is hard to see how they will be able to make a complete adaption of their business model by removing global sourcing and hence encompassing a short supply chain with more local production. However, there are some interesting developments with tentative movements in this direction.

Recent growth has been fuelled by Government initiatives and consumer demand. However, there is a paucity of research in this area. To enable it to continue to grow it will need to maintain credibility with consumers and justify its perceived sustainability benefits to Government. An immediate priority for research is to explore the possibility of providing a clearer definition of local food. Such endeavours will make it easier to measure the size of this sector and monitor its anticipated growth. This will contribute to being able to understand its impact. Another important area for research is to explore the possibility of developing some form of consumer assurance for the 'localness' of foods, such as a carbon footprint measurement or assurance guarantee , such as organic certification. Another important area of research is to capture the benefits, both in terms of ongoing grass roots projects and for future policy directions, from the recent major publically funded grant programs in England.

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