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AN ANALYSIS OF MARKETING CHANNELS OF LOCAL FOOD IN SCOTLAND

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ABSTRACT

Local food and its possibilities for addressing sustainable regional growth, food availability, accessibility and affordability has received considerable attention in the discussion on and development of the National Food Policy in Scotland. In terms of methodology, the paper continues the analysis of the local food database for Scotland constructed in Watts et al (2010) by exploring the marketing outlets used by the local food enterprises. This subject is important because it may provide information about the degree of entrepreneurship of the involved firms.

KEYWORDS: Local food, Scotland, marketing outlets.

I. INTRODUCTION

Since the mid-1990s, there has been considerable research into the phenomena of ‘alternative’, ‘quality’, and ‘local’ food networks (for an overview see Watts et al., 2010). The emergence of localised food supply systems and increasing consumer awareness of local foods created an interest in the development of local food networks due to their potential for increasing the share of the retail price retained by producers. Indeed, such networks have come to be regarded as a regional and rural development policy tool (see, for example, Marsden et al., 1999; Marsden et al., 2000; Murdoch et al., 2000; Renting et al., 2003).

Local food has moved up the Scottish policy agenda in recent years. Successive governments have promoted local food processing and marketing, encouraged localised food distribution systems, and supported regional marketing co-operatives where this is necessary to enhance the marketing strength of food producers. This increasing prominence was reinforced in November 2007, when the Scottish Parliament resolved that Scotland should have a national food policy and held a ‘national discussion’ on the subject in the first half of 2008. An analysis of contributions to this discussion (by individuals, businesses and organisations) showed that ‘local food and local economies’ was the second most mentioned topic across Scotland, being raised by 49 per cent of respondents (Leat et al., 2008). Against this background, the Scottish Government launched Scotland’s Food and Drink Policy in 2009 which, among other things, seeks to ‘provide advice and funding to local producers to help them develop markets for their products and encourage the growth of farmers’ markets, farm shops and local food initiatives’, and, ‘investigate the scope for national support and development of local food forums and local food networks in order to support local producers’ (The Scottish Government, 2009, p.8).

During the past three years, local food has taken on additional policy relevance, as the experience of increasing food prices has triggered concerns about, and interest in, food security in developed countries. Food security is understood as ensuring the availability of, and access to, affordable, safe and nutritious food sufficient for an active lifestyle, for all, at all times (Defra, 2008). In this context, local food is being seen as a provider of accessible and affordable food within Scotland, as well as an important contributor to economic development in rural areas.

Despite the increasing policy emphasis on local food, evidence about it in Scotland remains scarce. Although there have been four studies of the ‘local food’ sector in Scotland, the first (Grieve and Slee, 2003), did not present any detailed evidence on the extent of local food activity. The second, submitted to the Scottish Government by its authors in 2007, has not been placed in the public domain. A third, by Reid (2007), is a literature review. Only the most recent (Watts et al., 2010) presents empirical evidence on local food activity.

This paper builds on Watts et al. (2010) by analysing the spatial dynamics of local food in Scotland. Specifically, it evaluates whether the local food sector has the potential to become a source of affordable, accessible and healthy food for Scotland or is likely to remain a niche market. Thus, in order to further reveal the nature of local food in Scotland, the paper focuses on the marketing channels used by producers and retailers.

II. EMPIRICAL WORK

The empirical work in the paper starts with a description of the data used, followed by the methods and the obtained results.

A. Data

This paper continues the analysis of the local food database in Scotland constructed and described in Watts et al. (2010). Following Ilbery et al. (2006), the database was made from publicly available lists and directories of businesses that define themselves as producers, processors, and/or retailers of local food. Efforts were made to consult all published sources. In total, thirty-two were traced: eleven UK directories with listings for Scotland; five Scottish food directories; and sixteen sub-national listings, published by food-producer groups, local authorities, farmers’ market groups, etc.

Three caveats must be made concerning the use of these secondary sources. The first is that they give details of individual enterprises and not, as a rule, about their trading networks (i.e. their trading partners and the areas over which they operate). The second caveat is that the database's reliance on enterprises' declarations, and on the selection criteria of directory compilers, made it impossible to employ a strict definition of 'local food enterprise'. Thus, for present purposes, the term 'local food enterprise' includes producers, processors, and retailers of both local and regional foods, as often there was insufficient information in the data sources to differentiate them. The third caveat is that these self-selection biases, combined with the geographically uneven sub-national coverage of half of the data sources, mean that it cannot be proven that the database is representative of all local food enterprises in Scotland. Nevertheless, the authors are confident that the database provides a reasonably accurate representation of local food enterprises in Scotland and that, by analysing their geographies at the agricultural area level (groupings of local authority areas used for the presentation of agricultural statistics), problems arising from local-level biases in the data sources have been minimized. The high level of redundancy encountered in the latter stages of database construction suggests that nearly all Scottish local food enterprises that publicise themselves as such have been included.

In terms of content, the Scottish local food enterprise data comprise five categories. First, location to postcode level; second, business activities, subdivided into: primary produce (up to three products); processing activities (up to three activities); types of retail outlet (up to four outlets); and geographical scope of product distribution (local, regional, national, international); third was product designations (up to four), such as organic, free range and Protected Designation of Origin (PDO); fourth, membership of (up to four) industry or cooperative organizations; and fifth, the sources (up to four) in which the enterprise was listed. It should be noted that more detailed economic data (for example, turnover and employees) were not present in the sources and are expected to be added to the database as part of future research.

The content of the database is summarised in Table 1, which shows it to contain 723 enterprises, of which just over 52 per cent are farm based and 47 per cent are non-farm based. Of the farm based enterprises, the most common category (32 per cent of the whole sample) is farming and retailing, whilst a further 17.6 per cent are engaged in farming, processing and retailing. Amongst the non-farm based enterprises, the most common category is that of processing and retailing local food (27.5 per cent of the whole sample), followed by those exclusively engaged in local food retailing (14.9 per cent).

Table 1 Content of the database

	Cases	%
Farm based	377	52.1
Exclusively farmer	10	1.4
Farmer and processor	9	1.2
Farmer and retailer	231	32.0
Farmer, processor and retailer	127	17.6
Non-farm based	340	47.0
Exclusively processors	33	4.6
Exclusively retailer	108	14.9
Processor and retailer	199	27.5
Unclassified	6	0.8
Total	723	100.0

Figures 1 and 2 present the spatial distribution of non-farm based and farm based enterprises in Scotland. As far as geographical distribution is concerned, Figure 1 maps the presence of the non-farm based enterprises in relation to population density as gauged by the number of enterprises per 1000 people in each of Scotland's 32 local authority areas. The analysis confirms that non-farm based local food enterprises tend to be concentrated in the less populated and more remote areas. These areas include, amongst others, the island groups to the north and west of the Scottish mainland, and the Highland area. The lowest presence of non-farmed based local food enterprises relative to population is found through the more heavily populated areas of central Scotland and on the eastern seaboard. This inverse relationship between the population density of a local authority area and the number of non-farm based enterprises was tested by the Kolmogorov-Smirnov statistic[1] and found to be significant at the 1 per cent level.

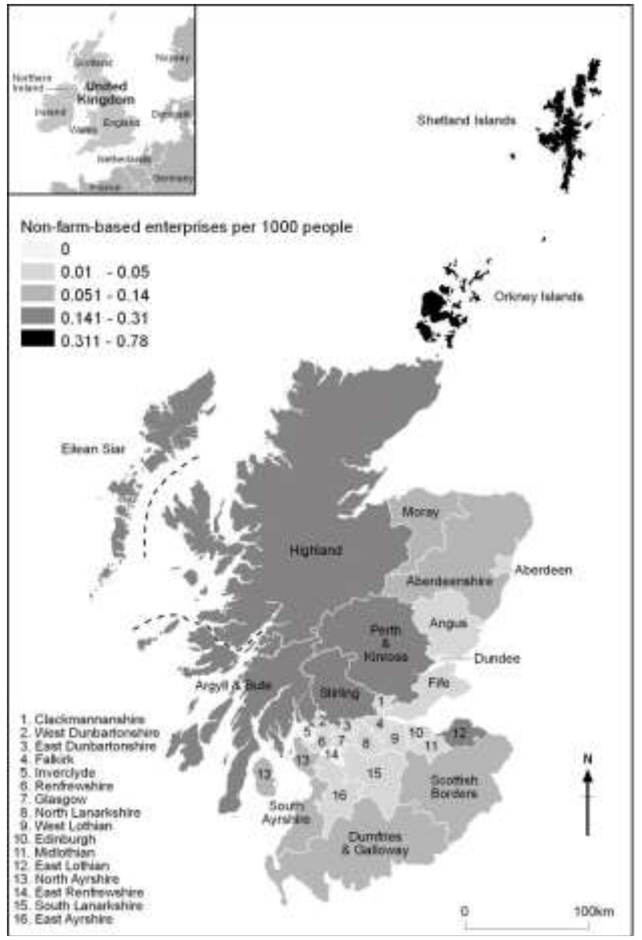

Figure 1 – Non-farm based enterprises

Source: Watts et al. (2010)

Moving to the farm based enterprises, Figure 2 considers the concentration of farm based local food enterprises in an area, relative to the presence of farms. The statistic used is a Location Quotient (LQ_{ij}) which represents:

$$LQ_{ij} = \frac{\frac{N_{i,j}}{N_j}}{\frac{N_{i,Sco}}{N_{Sco}}} \tag{1}$$

Where $N_{i,j}$ are the number of enterprises that correspond to category i in the region j (or selling product j if the coefficient is calculated in terms of products instead of locations), N_j is the number of

[1] A nonparametric statistics test used for comparing the distribution of two samples.

enterprises in region j (or selling product j), $N_{i,Sco}$ is the number of enterprises that correspond to the category i in Scotland and N_{Sco} is the number of enterprises in Scotland. Note that a location coefficient higher than 1.0 indicates that the region (or product) has a tendency of having more enterprises of a category than the Scottish average; therefore it provides an idea of the importance of the category in the region or in the selling of the product.

The Location Quotients have been calculated for agricultural areas and show a rather different situation to that encountered for the non-farm based enterprises. The densest concentrations are found through Central Scotland, Lothian and Tayside, Fife, Argyll and Bute and Ayrshire.

Figure 2 – Farm based enterprises
Source: Watts et al (2010)

B. Methods

The starting point of the analysis involved the identification of the main marketing outlets used by the food enterprises. The following categories were identified in the database: **Fishmonger** - retailer of fish; **Farm gate (stall) or shop** - food sold from farm premises and may not be restricted to the produce of that farm; **Shop (other)** - all shops not covered by the previous categories; **Farmers' market** - as enterprises so listed tended to come from farmers' market stallholder lists, the Scottish Association of Farmers' Markets (SAFM) definition is appropriate (i.e. stallholder must be involved in production within Scotland); **Market (other)** - any retail market (permanent or periodic) not connected with a farmers' market; **Mail order** – dispatch by postal or courier service, with goods ordered in person, by phone and/or through the internet; **Direct delivery** - delivered by the retailer against specific, discrete customer orders; **Box scheme** – similar to direct delivery but with two main conceptual differences, though these may be blurred in practice. First, there will not necessarily be any retail premises. Secondly, box schemes are usually run on a subscription basis and customers tend to get what the scheme has available, though different types of box can sometimes be chosen; **Catering** - cafes, tea shops, restaurants and 'outside' caterers claiming to use local/regional produce; **Pick-your-own** - similar to farm gate category but self-harvested; **CSA (Community Supported Agriculture)** - based on a cost/risk sharing basis between the member and the farm (may involve a labour contribution); **Shop (mobile)** – shop on wheels.

To gauge the relative importance of the different marketing outlets, they were tabulated in terms of their frequency of listing in the database, with a distinction made between farm based and non-farm based enterprises. They were also tabulated against location to assess whether there was a marked spatial distribution of marketing channels. The marketing channels were also contrasted against the major products retailed to see whether there was an association between product and marketing channel. The results are presented in the next section.

C. Results

Table 2 presents a summary of the outlets used by Scottish local food enterprises as recorded in the database. In total the 377 farm based enterprises were using 595 marketing outlets, an average of 1.58 outlets per enterprise. Some 181 (47 per cent) of these enterprises used only one outlet, and amongst these single outlet enterprises by far the most common outlet was that of a farm gate stall or shop (93). Moreover, the farm gate stall or shop was utilised by almost 58 per cent of all of the farm based enterprises. This was followed by the use of farmers' market(s) by 31 per cent of the enterprises and mail order by 23 per cent. The latter figure suggests that almost a quarter of the enterprises may be selling their products to customers outside their local area, thus extending the market for their products and adding to the economic base of their area. This will also be true for enterprises whose products are ultimately sold to visitors to the area.

Amongst the 340 non-farm based enterprises 425 outlets were used, an average of 1.25 outlets per enterprise; fewer than the average for the farm based enterprises. A total of 193 (57 per cent) of the non-farm enterprises used only one outlet, with the most common outlet being a shop (45 per cent). Mail order (26 per cent) and catering (19 per cent) were also relatively common, again suggesting the likelihood of significant sales to customers from outside the locality.

It is apparent that quite a large proportion of enterprises use more than one market outlet. Table 3 provides information on the most common combinations of marketing outlets. Amongst farm based enterprises, the combination of farm gate stall or shop and farmers' market was most common, quite often combined with mail order, or direct delivery or a box scheme.

Table 2 Marketing outlets of farm based and non-farm based local food enterprises

Farm based			
Outlet Category	Enterprises using outlet	Percentage of enterprises	Enterprises using the outlet alone
Fishmonger	5	1.3	3
Farm gate or shop	218	57.8	93
Shop (other)	25	6.6	7
Farmers' market	115	30.5	29
Market (other)	1	0.3	1
Mail Order	85	22.5	20
Direct Delivery	41	10.9	7
Box scheme	47	12.5	7
Catering	24	6.4	4
Pick-your-own	23	6.1	7
CSA	9	2.4	3
Shop (mobile)	2	0.5	0
Total outlets	595		
Total no. of farm based enterprises	377	100	
Non-farm based			
Outlet Category	Enterprises using outlet	Percentage of enterprises	Enterprises using the outlet alone
Fishmonger	43	12.6	19
Farm gate or shop	8	2.4	3
Shop (other)	152	44.7	92
Farmers' market	31	9.1	12
Market (other)	5	1.5	4
Mail Order	88	25.9	25
Direct Delivery	12	3.5	0
Box scheme	14	4.1	2
Catering	64	18.8	46
Pick-your-own	0	0.0	0
CSA	0	0.0	0
Shop (mobile)	8	2.4	2
Total outlets	425		
Total no. of non-farm enterprises	340	100	

For non-farm based enterprises, shops were most frequently combined with mail order. Within the database 209 (28.9 per cent) used 2 outlets, 56 (7.8 per cent) used 3, 12 (1.7 per cent) used 4, and 60 (8.3 per cent) did not engage in retailing. The database also highlights the enterprise interconnectivity of the local food enterprises with 257 (36 per cent) of the 723 enterprises engaging in trade distribution of some form (to wholesalers, shops and catering establishments).

Table 3 Marketing outlets of farm based and non-farm based local food enterprises and most common outlet combinations

	Farm based
Outlet Category	Most common combination of outlets (and number)
Fishmonger	Fishmonger, Mail Order, Shop (1)
Farm gate or shop	Farm gate or shop and Farmers' market (27)
Shop (other)	Shop and Mail order (6)
Farmers’ market	Farmers' market and Farm gate or shop (27)
Market (other)	-
Mail Order	Mail order, Farmers’ market, Farm shop (11)
Direct Delivery	Direct Delivery and Farm gate or shop (11)
Box scheme	Box scheme and Farm gate or shop (12)
Catering	Catering and Farm gate or shop (8)
Pick-your-own	Pick-your-own and Farm gate or shop (8)
CSA	CSA and Box scheme (3)
Shop (mobile)	Shop (mobile) and Mail order (1)
	Non-farm based
Outlet Category	Most common combination of outlets (and number)
Fishmonger	Fishmonger and Mail order (12)
Farm gate or shop	Farm gate or shop and Mail order (2)
Shop (other)	Shop and Mail order (25)
Farmers’ market	Farmers' market and Mail order (8)
Market (other)	Market and Mobile shop (10)
Mail Order	Mail order and Shop (25)
Direct Delivery	Direct delivery and Shop (6)
Box scheme	Box scheme and Shop (6)
Catering	Catering and shop (8)
Pick-your-own	-
CSA	-
Shop (mobile)	Shop and mail order (1)

Tables 4 and 5 provide information on the location of the farm based and non-farm based enterprises by agricultural area, and on the marketing outlets that they use.

The LQs in Table 4 indicate farm gate sales to be strongly represented in East Central, which has a particular concentration of farm based enterprises, and Highland, where there is a low population density and relatively few large settlements. The use of farmers’ markets is to some extent influenced by the presence of farmers’ markets themselves. Thus there is a high LQ for their use in the Clyde Valley area, where the high population and large number of markets (8 in the Glasgow and surrounding area alone) encourages their use by local food enterprises. High LQ’s for the use of farmers’ markets are also found in Ayrshire, which borders the Clyde Valley, and the major population areas of Lothian, the North East and Tayside. A further concentration is found in the Scottish Borders. Box schemes, where produce is delivered by the producer on a regular basis to scheme members, are frequently concentrated in areas where farmers’ markets are widely used. This is partly because members (customers) of box schemes are often recruited at farmers’ markets. Thus there are particular concentrations of box scheme usage in Ayrshire, Lothian, the North East, Scottish Borders and Tayside. Finally, it is interesting to note concentrations of mail order outlets in some of the remoter areas such as Dumfries and Galloway, Argyll and Bute and Orkney, although concentrations do exist in more populous areas as well.

Table 5 provides similar locational and market outlet information to that in Table 4, but this time for non-farm based enterprises. Within the most commonly used outlet category, that of a shop, there is a tendency for concentrations to exist in mainland and more populated areas, except for Dumfries and Galloway. In contrast mail order, which frequently seeks to connect with customers outside the area of production, tends to be concentrated in the areas of lower population density, including the island areas (Orkney, Shetland and Eilean Siar – the Western Isles).

Table 4. Presence of farm based local food enterprise marketing outlets by agricultural area (numbers and location quotients)

	Argyll and Bute	Ayrshire	Clyde Valley	Dumfries & Galloway	East Central	Eilean Siar	Fife	Highland	Lothian	North East	Orkney	Scottish Borders	Shetland	Tayside	Not known	Scotland
Fishmonger	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5
LQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.19	0.00	0.00	0.00	0.00	1.00
Farm gate or shop	12	15	8	7	27	3	10	48	13	28	4	7	2	34	0	218
LQ	0.78	1.02	0.73	0.83	1.36	1.36	0.76	1.32	0.77	0.98	0.68	0.91	1.36	0.94	0.00	1.00
Shop (other)	2	2	1	1	2	1	3	5	1	3	2	0	2	0	0	25
LQ	1.13	1.19	0.79	1.03	0.88	3.97	1.98	1.20	0.52	0.92	2.98	0.00	11.90	0.00	0.00	1.00
Farmers' market	8	10	11	1	7	1	7	11	10	20	1	6	0	21	1	115
LQ	0.99	1.29	1.90	0.22	0.67	0.86	1.01	0.57	1.12	1.33	0.32	1.48	0.00	1.10	5.17	1.00
Market (other)	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
LQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.63	0.00	0.00	0.00	0.00	0.00	1.00
Mail Order	11	4	5	10	3	0	6	12	9	7	3	4	0	11	0	85
LQ	1.83	0.70	1.17	3.04	0.39	0.00	1.17	0.85	1.37	0.63	1.31	1.33	0.00	0.78	0.00	1.00
Direct Delivery	4	2	2	2	9	0	1	5	5	6	0	1	0	4	0	41
LQ	1.38	0.73	0.97	1.26	2.42	0.00	0.40	0.73	1.58	1.12	0.00	0.69	0.00	0.59	0.00	1.00
Box scheme	0	5	2	0	1	1	1	9	4	10	1	2	0	11	0	47
LQ	0.00	1.58	0.84	0.00	0.23	2.11	0.35	1.15	1.10	1.62	0.79	1.21	0.00	1.41	0.00	1.00
Catering	2	1	0	2	3	0	4	1	1	2	0	0	0	8	0	24
LQ	1.18	0.62	0.00	2.16	1.38	0.00	2.75	0.25	0.54	0.64	0.00	0.00	0.00	2.00	0.00	1.00
Pick-your-own	2	1	0	0	2	0	4	2	3	0	0	1	0	8	0	23
LQ	1.23	0.65	0.00	0.00	0.96	0.00	2.87	0.52	1.69	0.00	0.00	1.23	0.00	2.09	0.00	1.00
CSA	1	0	1	0	0	0	0	5	0	1	0	0	0	1	0	9
LQ	1.57	0.00	2.20	0.00	0.00	0.00	0.00	3.34	0.00	0.85	0.00	0.00	0.00	0.67	0.00	1.00
Shop (mobile)	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
LQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.01	0.00	0.00	0.00	0.00	0.00	3.01	0.00	1.00
No. of outlets	42	40	30	23	54	6	36	99	46	78	16	21	4	99	1	595
Percentage of farm based outlets	7.1%	6.7%	5.0%	3.9%	9.1%	1.0%	6.1%	16.6%	7.7%	13.1%	2.7%	3.5%	0.7%	16.6%	0.2%	100.0%

Table 5. Presence of non-farm based local food enterprise marketing outlets by agricultural area (numbers and location quotients)

	Ayrshire	Argyll and Bute	Clyde Valley	Dumfries & Galloway	East Central	Eilean Siar	Fife	Highland	Lothian	North East	Orkney	Scottish Borders	Shetland	Tayside	Not known	Scotland
Fishmonger	4	2	2	3	0	0	2	9	7	9	0	2	1	2	0	43
LQ	0.81	0.76	0.79	1.29	0.00	0.00	3.29	1.59	1.21	1.89	0.00	1.24	0.76	0.36	0.00	1.00
Farm gate or shop	3	0	0	0	0	0	0	4	0	0	0	0	0	1	0	8
LQ	3.25	0.00	0.00	0.00	0.00	0.00	0.00	3.79	0.00	0.00	0.00	0.00	0.00	0.97	0.00	1.00
Shop (other)	12	8	11	10	20	1	3	12	20	21	1	4	4	25	0	152
LQ	0.68	0.86	1.23	1.22	1.43	0.40	1.40	0.60	0.98	1.25	0.47	0.70	0.86	1.27	0.00	1.00
Farmers' market	4	3	2	1	3	0	0	3	4	5	0	2	1	3	0	31
LQ	1.12	1.58	1.10	0.60	1.05	0.00	0.00	0.73	0.96	1.46	0.00	1.71	1.05	0.75	0.00	1.00
Market (other)	0	0	0	0	0	2	0	2	1	0	0	0	0	0	0	5
LQ	0.00	0.00	0.00	0.00	0.00	24.29	0.00	3.04	1.49	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Mail Order	8	7	4	7	7	3	0	14	5	6	1	6	5	15	0	88
LQ	0.79	1.30	0.77	1.47	0.87	2.07	0.00	1.21	0.42	0.62	0.80	1.81	1.86	1.32	0.00	1.00
Direct Delivery	0	0	1	0	2	0	0	1	4	0	0	2	0	2	0	12
LQ	0.00	0.00	1.42	0.00	1.82	0.00	0.00	0.63	2.49	0.00	0.00	4.43	0.00	1.29	0.00	1.00
Box scheme	0	2	1	0	0	0	0	0	6	2	0	0	0	3	0	14
LQ	0.00	2.34	1.21	0.00	0.00	0.00	0.00	0.00	3.20	1.29	0.00	0.00	0.00	1.66	0.00	1.00
Catering	15	4	4	2	7	1	1	10	9	3	4	0	0	4	0	64
LQ	2.03	1.02	1.06	0.58	1.19	0.95	1.11	1.19	1.05	0.42	4.43	0.00	0.00	0.48	0.00	1.00
Pick-your-own	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CSA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Shop (mobile)	3	0	0	0	0	0	0	1	1	1	0	0	2	0	0	8
LQ	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.93	1.13	0.00	0.00	8.17	0.00	0.00	1.00
No. of outlets	49	26	25	23	39	7	6	56	57	47	6	16	13	55	0	425
Percentage of non-farm based outlets	11.5	6.1	5.9	5.4	9.2	1.6	1.4	13.2	13.4	11.1	1.4	3.8	3.1	12.9	0.0	100.0

Table 6 presents the distribution of products listed as being sold through the various outlet types by farm based local food enterprises. It indicates that beef and sheepmeat, along with fruit and vegetables, are by far the most common products sold, with over half of the farm based enterprises marketing both of these types of product. Thereafter, pigmeat and poultry products (17 per cent), dairy products (10.1 per cent) fish (6.9 per cent) and game products (5.6 per cent) are rather less common. In terms of outlets, the most common outlet for all of the products is the farm gate stall or shop, typically accounting for 30-40 per cent of the outlets listing the type of product concerned, and with an overall figure of 36.6 per cent. Preserves (including honey) and unspecified products have an even higher proportion of their outlets accounted for by farm gate stalls or shops.

The second most common outlet is the farmers' market. Overall, this accounts for 19.3 per cent of the outlets used, and for none of the products does it assume greater importance, in terms of number of enterprises using the outlet, than the farm gate stall or shop. The third most important outlet is that of mail order, accounting for 14.3 per cent of the outlets. Mail order appears to be a relatively important outlet for meat and dairy products and preserves, but is rather less important for fruit and vegetables. This is probably a reflection of the relative value and perishability of the products concerned, with fruit and vegetables being rather bulky in relation to their value and in some instances quite perishable and difficult/costly to package for delivery by mail. In contrast, box schemes are relatively more important for fruit and vegetables than for other products.

In a similar manner, Table 7 presents the distribution of products listed as being sold through the various forms of outlet by non-farm based local food enterprises. It shows that the most commonly listed products are fish (listed by 31.2 per cent of enterprises), bakery products (22.6 per cent) and beef and sheepmeat (15.6 per cent). In addition, a large number of the products do not fall within the product categories used.

Table 7 also reveals that amongst the non-farm based local food enterprises the use of shops is the most common outlet, comprising 35.8 per cent of all outlet listings. The other prominent outlets are mail order (20.7 per cent), catering (15.1 per cent) and fishmongers (10.1 per cent - a particular case). Shop outlets are of particular importance for beef and sheepmeat (64.2 per cent of the enterprises listing beef and sheep), bakery products (51.9 per cent), fruit and vegetables (50 per cent), and beverages (47.2 per cent). Mail order is again of importance for beef and sheepmeat (18.9 per cent) and dairy products (18.2 per cent), but is of particular importance for beverages (36.1 per cent), preserves (33.3 per cent - but the number is small) and fish (30.2 per cent).

Table 6 Outlets and products marketed by farm based local food enterprises

	Beef and Sheep	Fruit and Vegetables	Pigs and Poultry	Dairy products	Fish	Venison and game birds	Preserves, inc. honey	Cereals	Beverages	Bakery products	Unspecified	Total of outlets
Fishmonger	2	0	0	0	3	0	0	0	0	0	0	5
% of outlets selling product	1.0	0.0	0.0	0.0	11.5	0.0	0.0	0.0	-	-	0.0	0.8
Farm gate or shop	69	65	24	14	9	8	4	1	0	0	24	218
%	35.6	32.8	37.5	36.8	34.6	38.1	44.4	33.3	-	-	57.1	36.6
Shop (other)	6	5	2	3	3	3	0	0	0	0	3	25
%	3.1	2.5	3.1	7.9	11.5	14.3	0.0	0.0	-	-	7.1	4.2
Farmers' market	38	38	16	7	4	6	2	0	0	0	4	115
%	19.6	19.2	25.0	18.4	15.4	28.6	22.2	0.0	-	-	9.5	19.3
Market (other)	1	0	0	0	0	0	0	0	0	0	0	1
%	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.2
Mail Order	41	13	12	7	3	4	2	0	0	0	3	85
%	21.1	6.6	18.8	18.4	11.5	19.0	22.2	0.0	-	-	7.1	14.3
Direct Delivery	19	9	5	1	3	0	0	0	0	0	4	41
%	9.8	4.5	7.8	2.6	11.5	0.0	0.0	0.0	-	-	9.5	6.9
Box scheme	9	34	2	2	0	0	0	0	0	0	0	47
%	4.6	17.2	3.1	5.3	0.0	0.0	0.0	0.0	-	-	0.0	7.9
Catering	3	9	2	3	1	0	1	1	0	0	4	24
%	1.5	4.5	3.1	7.9	3.8	0.0	11.1	33.3	-	-	9.5	4.0
Pick-your-own	2	20	0	0	0	0	0	1	0	0	0	23
%	1.0	10.1	0.0	0.0	0.0	0.0	0.0	33.3	-	-	0.0	3.9
CSA	2	5	1	1	0	0	0	0	0	0	0	9
%	1.0	2.5	1.6	2.6	0.0	0.0	0.0	0.0	-	-	0.0	1.5
Shop (mobile)	2	0	0	0	0	0	0	0	0	0	0	2
%	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Total product listings	194	198	64	38	26	21	9	3	0	0	42	595
Percentage of enterprises (n= 377)	51.5	52.5	17.0	10.1	6.9	5.6	2.4	0.8	0.0	0.0	11.1	

Table 7 Outlets and products marketed by non-farm based local food enterprises

	Beef and Sheep	Fruit and Vegetables	Pigs and Poultry	Dairy products	Fish	Venison and game birds	Preserves, inc. honey	Cereals	Beverages	Bakery products	Unspecified	Total of outlets
Fishmonger	0	0	0	0	42	0	0	0	0	0	1	43
% of outlets selling product	0.0	0.0	-	0.0	39.6	-	0.0	-	0.0	0.0	0.8	10.1
Farm gate or shop	1	0	0	2	0	0	1	0	0	3	1	8
%	1.9	0.0	-	18.2	0.0	-	11.1	-	0.0	3.9	0.8	1.9
Shop (other)	34	1	0	2	15	0	1	0	17	40	42	152
%	64.2	50.0	-	18.2	14.2	-	11.1	-	47.2	51.9	32.1	35.8
Farmers’ market	1	0	0	3	4	0	3	0	5	14	1	31
%	1.9	0.0	-	27.3	3.8	-	33.3	-	13.9	18.2	0.8	7.3
Market (other)	1	0	0	0	0	0	0	0	0	0	4	5
%	1.9	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	3.1	1.2
Mail Order	10	0	0	2	32	0	3	0	13	11	17	88
%	18.9	0.0	-	18.2	30.2	-	33.3	-	36.1	14.3	13.0	20.7
Direct Delivery	5	0	0	0	5	0	0	0	0	0	2	12
%	9.4	0.0	-	0.0	4.7	-	0.0	-	0.0	0.0	1.5	2.8
Box scheme	1	1	0	0	0	0	0	0	0	0	12	14
%	1.9	50.0	-	0.0	0.0	-	0.0	-	0.0	0.0	9.2	3.3
Catering	0	0	0	0	5	0	1	0	1	7	50	64
%	0.0	0.0	-	0.0	4.7	-	11.1	-	2.8	9.1	38.2	15.1
Pick-your-own	0	0	0	0	0	0	0	0	0	0	0	0
%	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0
CSA	0	0	0	0	0	0	0	0	0	0	0	0
%	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0
Shop (mobile)	0	0	0	2	3	0	0	0	0	2	1	8
%	0.0	0.0	-	18.2	2.8	-	0.0	-	0.0	2.6	0.8	1.9
Total product listings	53	2	0	11	106	0	9	0	36	77	131	425
Percentage of enterprises (n=340)	15.6	0.6	0.0	3.2	31.2	0.0	2.6	0.0	10.6	22.6	38.5	

III. CONCLUSIONS

The purpose of this paper has been to continue the research started in Watts et al. (2010) as regards the distribution and nature of local food enterprises across Scotland by exploring the marketing outlets used by such enterprises. This issue is important because it provides information about the degree of entrepreneurship of the firms involved. For instance, an enterprise selling only at the farm gate in comparison with other using different marketing outlets may indicate that the latter has more inclination towards expansion and market orientation.

The most common marketing outlets for farm based local food enterprises are farm gate stalls or shops (used by well over half of the enterprises) for all the locations. Farm gate stalls or shops are also the single most common outlet, for farm based enterprises for each of the food categories considered in the study, indicating their universal importance.

It is important to highlight that many enterprises engage in the use of more than one outlet type. The most common 'other' outlet for farm based enterprises is that of a farmers' market. The frequent use of more than one outlet reflects the need to gain sufficient sales revenue to make the businesses viable and also a higher degree of entrepreneurship. Farm gate sales and attendance at farmer's markets can also represent relatively low levels of financial investment, although they may be labour intensive. They also permit strong communication between the producer and consumer, thus helping to differentiate the product and strengthen the producer-consumer relationship. It is suggested that the importance of farm gate sales to farm based local food enterprises needs be recognised by planning authorities in considering planning permission for such retail developments.

The examination of the distribution of market outlets indicates concentrations of farmers' market and box scheme usage by farm based enterprises in areas of high population density. For non-farm based enterprises the most common outlet was that of a shop and there is a tendency for these also to be concentrated in mainland and more populated areas.

The use of mail order by both farm (22.5 per cent of enterprises) and non-farm based (25.9 per cent) local food enterprises, suggests that the local food enterprises are quite extensively engaged in selling food to customers outside their area. Moreover, the finding that there are concentrations of mail order use in remoter areas of lower population density, almost certainly reflects attempts by the businesses concerned to extend their marketing areas. Such businesses are possibly making the transition from being local food enterprises to locality or regional food enterprises (where the food product is distributed outside its production locale but with its provenance clearly identified).

The most commonly supplied products by the farm based enterprises are beef and sheepmeat, and fruit and vegetables, followed by other meat, dairy and fish products. This reflects both the types of farming comprising Scottish agriculture and also the suitability of products for local provision (i.e. requiring low levels of processing or processing that is suited to a farm environment). Whilst most of these product types are suitable for mail order, fruit and vegetables are more commonly dispatched through direct delivery or box schemes.

In conclusion, this initial analysis suggests that the pattern of marketing activity associated with Scottish local food is influenced by local supply and demand conditions, the costs and practicalities associated with different outlets, the nature of the products and the marketing infrastructure available to producers. Moreover, a significant number of local food enterprises are clearly already engaging in the supply of food beyond their own area, and in this respect making an increased contribution to their local economy and to food security.

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