REFERENCE

A Critical Evaluation of Perceptions of Drivers for Organic Food Production in the UK

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ABSTRACT

This research was designed to evaluate and critically analyse organic food production in the UK. The main aims of this study were: 1) To investigate drivers and barriers for change from conventional to organic food for producers; for consumers; for supermarkets and small organic processors; 2) To quantify the impacts of interrelationships on organic farming growth and development; 3) To critically assess tensions between stakeholders.

A mixed methods approach was applied in order to achieve these. This involved firstly an in-depth postal questionnaire survey (637 organic farmers) in different regions of England with selective follow-up telephone interviews. This was to assess drivers and barriers toward conversion and dealt solely with farmers that had gone through the process. Second, was a series of detailed personal interviews with representatives from major supermarket chains. Thirdly, interviews were conducted with the managers of five different types of alternative market outlets in South Yorkshire. Finally, information on consumer perspectives and issues was collected and interrogated from the extensive available literature. Representatives of the Soil Association were also contacted and interviewed. Mixed methods (quantitative and qualitative) were used to gather pertinent information, and where appropriate this was tested statistically using the Statistical Package for Social Sciences (SPSS) software. The qualitative information was analysed and interpreted. Qualitative findings of (10 interviews) were transcribed, critically analysed, triangulated, and interpreted.

The research highlighted key issues and suggested critical tensions that may affect the future development of organic farming in the UK. All stakeholders seemed aware of the value of positive interrelationships but there was divergence in the interpretation of this perhaps reflecting stakeholder interests. Local producers viewed the big retailers' practice of importation for guarantee of supply, of quality, and of low price as an obstacle. The representatives of the supermarkets made claims about their commitment to local producers, to UK organic farmers and to others that seem to be exaggerated and certainly at odds with the views of other stakeholders. There were issues raised about confusion in terminology and in quality marking or labelling. The wider public do not understand the differences between local, organic, seasonal, and conservation products for example. Again, seasonality was raised as a serious issue. Sales direct from producer to consumer, and through specialist alternative outlets help provide routes to consumers that miss the supermarkets' stranglehold. They also help build trust and to educate and inform the consumer. Some of these issues are noted as areas for further research. The study assessed and highlighted for the first time some interesting and exciting aspects of the interrelationships between key stakeholders. It also identified critical factors in terms of how these may influence the growth and development of organic farming.

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CHAPTER ONE

1. INTRODUCTION

Traditional farming practices used prior to the twenty century are generally regarded as 'organic' (Baker, 2002). Scientists, philosophers, and practitioners who questioned whether the widespread adoption of such practices was sustainable criticized introduction of chemically synthesised farm inputs such as urea and DDT. Farmers continued to practice traditional methods rather than adopt progressive methods of chemical farming. Despite some economic disadvantages, a number of these traditional farmers remained competitive (Baker, 2002). Organic food became established in the public's mind as a separate identity during the 1960s and 1970s. Rachel Carson's *Silent Spring* (1962) established public awareness of the ecological problems associated with agricultural chemicals in general and the use of synthetic insecticides in particular (McLachlan, 2001). Water pollution related to fertilizer and pesticide use and the two energy crises in the 1970s provided incentives for farmers to reduce the use of farm chemicals. Awareness of the consequences of modern farm practices, and especially fears about health issues, led to pesticide regulation and created growing consumer demand for food grown without ecologically destructive and toxic chemicals. Many consumers considered organic food to be one such alternative. Organic food production in the UK has now become an important issue in the public's eye and in the media. The following newspaper headlines illustrate the media interest. Organic food production in the UK is now a 'hot topic'. These articles demonstrate that this an issue central to popular public awareness, fear and debate. It makes research on organic food production a potentially very important and relevant field. These are critical media headlines:

- ***Consumers Push UK Supermarkets to Buy More Domestically Produced Organic Food*** (O C A, 2005)
- ***Does It Make Sense to Buy Locally Produced Organic Products?*** (Vanzetti and Wynen, 2002)
- ***UK Organic Food production in a Critical Condition - Report*** (O F & G, 2004)
- ***Organic Sales Boom but Most Still Imported*** (Lawrence, 2002)
- ***Supermarkets Accused Over Organic Foods*** (Laville and Vidal, 2006)
- ***Britain's Organic Food Scam Exposed*** (Doward *et al.*, 2005)

1.1 Definitions of organic farming

Organic farming as a concept has existed for over eighty years, but only since the mid-1980s has it become the focus of significant attention from policy-makers, consumers, environmentalists and farmers in Europe (Lampkin, 2003). Organic farming is popularly associated with a back-to-nature movement, which often rejects modern agricultural methods out of hand (Haines, 1982). However, in its less rigorous form, low-input farming is a serious and growing effort to reduce dependence on inorganic fertilizer and chemical controls without drastically reducing the industry's capacity to feed the world's growing population. Organic farming is an approach to agriculture that emphasises environmental protection, animal welfare, sustainable resource use, and social justice objectives, utilising the market to help support those objectives and compensate for the internalisation of externalities. Organic farming relies on crop rotation, crop residues, animal manure, legumes, green manure, off-farm organic wastes, and biological pest control. These maintain soil productivity, supply nutrients controlling pests. It is defined by a principal ideological background of the farm as an organism of soil, plant, and animals interacting to maintain a stable whole (Lampkin *et al.*, 1999).

Torjusen *et al.,* (2001) in Norway indicated that the major goals of organic farming systems are:

1) "To produce food of high quality in sufficient quantity;
2) To maintain the genetic diversity of the production system;
3) To progress toward an entire production, processing and distribution chain which is both socially just and ecologically responsible;
4) To give all livestock the conditions of live with consideration for the basic aspects of their innate behaviour, and to create a harmonious balance between crop production and animal husbandry." It is suggested that these goals may be typical across Europe, and thus provide a starting point for comparison and context of this research.

In addition, the goals of organic farming convey a predominantly farm-oriented and production practice perspective. Farm or production practices relevant to consumers include the following:

- No use of synthetic pesticides and industrial fertilizer;

- No use of genetically modified organisms (GMOs) in food production;
- No use of synthetic growth enhancers or colour additives in fodder;
- Only medicinal use of antibiotics;
- Security zones to separate from conventional farmland and roads;
- Restricted use of additive in processed foods (Debio, 1998, 1999).

Practices relevant to environmental concerns include maximum use of local resources and recycling of organic material, avoiding nitrogen leakage, and reduced use of fossil resources in transportation. Ethical considerations include enhancing biological diversity, keeping high ethical standards in animal husbandry, acknowledging the animals' innate nature and needs, and working for a socially just food system (Debio, 1998).

According to global statistics, more than 26 million hectares are currently managed organically worldwide (Willer and Yussefi, 2005). Currently, the countries with the greatest organic areas are Australia (11.3 million hectares), Argentina (2.8 million hectares) and Italy with more than one million hectares. The European Union had more than 5.6 million hectares and around 142,000 farms. The country with the highest number of farms and the greatest number of hectares is Italy (Willer and Yussefi, 2005). According to the Research Institute of Organic Agriculture (FiBL), the UK come the fourth after Italy, Germany and Spain for area under organic management (FiBL, 2005).

There is a range of environmental, social, economic, and political factors, which affects organic farming systems. Pests and diseases are considered as major constraints affecting organic production. However, there is a positive impact of organic farming system on the environment and the perception underlies the sector's growth (Jones, 2003). Some farmers adopted the system due to its environmentally sound (Hermansen, 2003). There is a strong consumer perception that organic food is safer and healthier (Pederson, 2003). In addition, organic farming may significantly affect the employment levels in rural regions. Nevertheless, availability of labour could be an obstacle to development of the system (Haring *et al.*, 2001). Profitability, consumption, and retail are key issues in organic farming along with of this the government support, agricultural policies and certification process (Jones, 2003). The diagram (Figure 1) shows how organic farming systems are affected by a range of environmental, economic, social and policy factors. Biotic and abiotic stresses are considered major environmental concerns

for producers, which may drastically affect organic systems ((Midmore *et al.*, 2001). Consumers seem to be the main driven of organic food production (Soil Association, 2005). Marketing and profitability are key motivation for some producers as well as for retailers (Lampkin and Measures, 1995). Financial support from government considered as another factor influencing conventional producer's attitudes towards organic (Holden, 2001; Vizoso, 2001). The interaction between all these factors may significantly affect the organic farming system. Figure (1) presents an outline conceptional framework to demonstrate lines of potential influence and interaction.

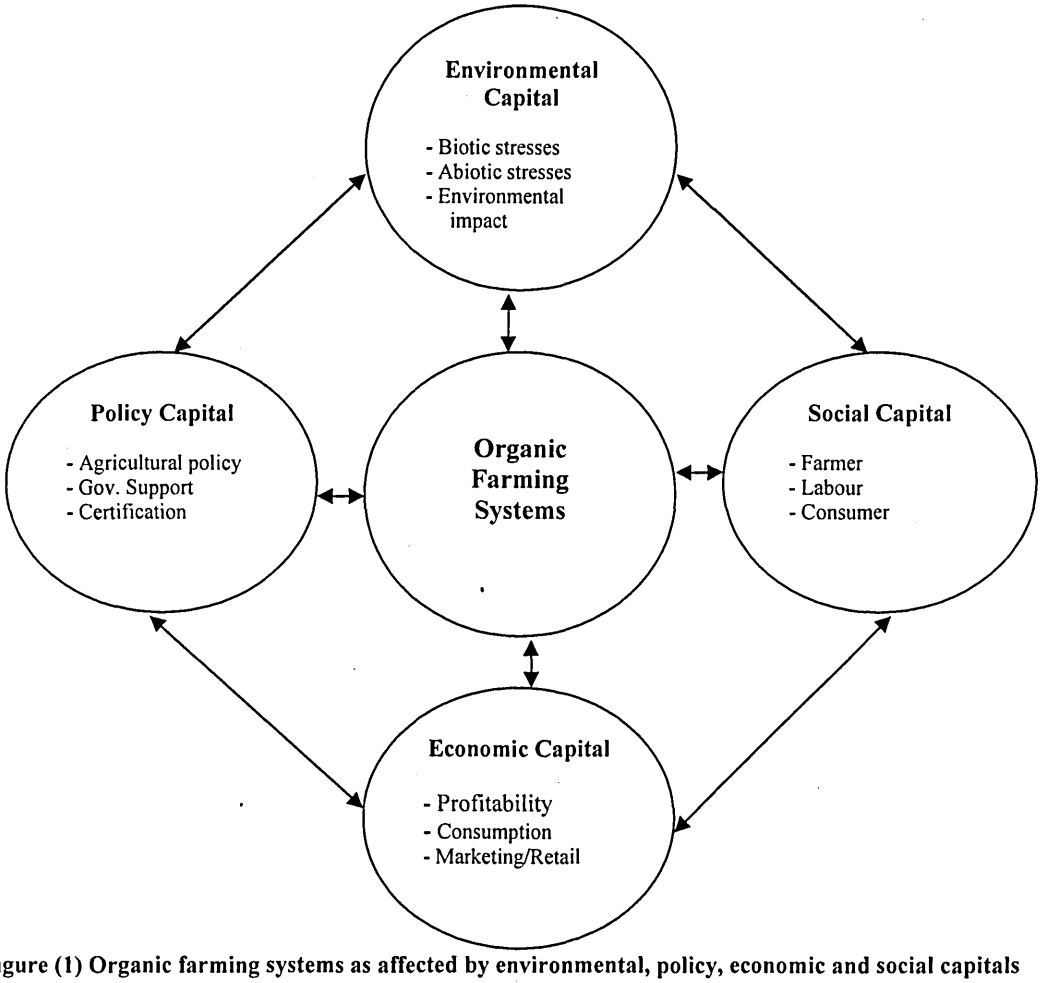


Figure (1) Organic farming systems as affected by environmental, policy, economic and social capitals

The development of organic farming is determined by diversity of key players, including producers, consumers, retail chains, governments, environment *etc.* (Pedersen, 2003). Producers, consumers, retailers, and alternative market outlets are considered here as key stakeholders of organic farming system. Organic producers apparently base their approach on the environment, food production, farming, and society (Hermansen, 2003). They seem to see economic advantages in organic production, alongside environmental reasons and motivations (Hanson, 2003; Dabbert, 2003). Technical issues such as weed and pest control, lack of confidence in the market

and access to information are considered major obstacles for most organic producers (Midmore *et al.*, 2001). Consumers appear concerned about environmental aspects, health concerns, taste, and ethical and animal welfare issues (Gruner and Hull, 1995). However, the higher price of organic food is a major constraint on consumption (Soil Association, 2000). In the UK Supermarkets are the main channels for the public to purchase organic food. Profitability is their main motive as it must be with all their operations, but this may conflict with aspects of organic food production (Smith and Marsden, 2004). The main problem identified as affecting the UK market is the limited supply of organic produce (Mintel, 2000). Retailers try to meet the increased demand through overseas imports (The Organic Target Bill Campaign, 2001). However, this strategy may limit the real growth of the UK farms and consequently affect the growth and development of organic farming systems. It is suggested that organic food supply-chains within the UK home market consist of two major channels: 1) Local supply-chains where organic production is sold directly to consumers through farm shops, farmers ' markets, organic shops and organic co-operatives and 2) External supply-chains where organic products imported from outside including from overseas (Soil Association, 2005).

Research to date regarding organic food production has focused primarily on motivations towards conversion, consumption, the benefits of the organic farming system, and its impact on public health and environment comparing with conventional farming systems (Kerselaers *et al.*, 2007; Harker, 2004; Pederson, 2003; Hallam, 2003; Makatouni, 2001; Midmore *et al.*, 2001). However, producers and consumers are attracted to organic approaches because of different motivations (taste, quality, environmental safety, animal welfare, ethics, profits *etc.*); some are controversial (Harker, 2004; Brandt and Molgaard, 2001; Lawrence, 2005).

The purpose of this research is to critically evaluate the organic food production in the UK by considering the interrelationships/interactions between range of motivations, barriers and source of information of producers, consumers, retailers and small organic processors towards organic. The impacts or influences of such interrelationships on organic farming growth and development in the UK will be assessed. The organic literature says that in order to develop organic production in the UK, there is a need for an increase in communication, cooperation and understanding between key stakeholders of the system. The current literature suggests that barriers to the development of organic

agriculture in the UK can be traced to the disconnection between stakeholders. This project considers these issues by firstly developing a 'conceptual framework' and then interrogating the interrelationships through a multi-methods approach. This facilitated the research process to achieve the following aims and objectives:

1.2 Aims

The primary aim of the research is to critically evaluate interrelationships between key stakeholders in organic food production in the UK and the implication of these for organic farming development. The main subsidiary aims of this study are:

- To investigate drivers and barriers for change from conventional to organic food for producers; for consumers; for supermarkets and small organic processors.
- To quantify the impact of interrelationships on organic farming growth and development.
- To critically assess tensions between stakeholders.

1.3 Research objectives

In order to address the research aims, the following objectives were identified:

1. To undertake a critical review of key literature and the available information sources.
2. To gather detailed information on:
   - Perceived drivers and barriers for farm conversion;
   - Perceived drivers and barriers for consumers;
   - Perceived drivers and barriers for retailers;
   - Diversification of the supply chain.

To undertake a scoping study to:

3. Identify key stakeholders and case study examples.
4. Identify and apply research frameworks and models to inform trend analysis.
5. Assess the importance of interrelationships among key stakeholders on organic farming development.

1.4 Terms and definitions

With respect to this research, the following terminologies were defined as:

- Drivers and motivations: These two terms have the same meaning. They are used to describe incentives or inducements of the stakeholders toward organic food.
- Barriers: Dictionary defines 'barrier' as an obstacle that prevents movement, access, or progress. Therefore, the word 'barrier' is used in this research to describe obstacles. These may be for example, prevent organic consumers from buying organic food, or producers from growing it.
- Interrelationships: This terminology used to describe a particular type of connection existing between the stakeholders related to or having dealing with each other. In other words, interrelationships describe a network of relationships or interactions between stakeholders. It may be classified as good (strong), or bad (weak) or may be no relation at all (neutral).
- Eating seasonally: Eating seasonally, means eat fresh throughout the growing season. It also means enjoying the ripest and freshest food at the height of its natural harvest time.
- Ethical consumers: Ethical consumers are defined as those who take ethical issues into account in deciding what to purchase (Organic Consumers Association, 2005).
- Green consumers: They are defined as consumers who consider products' environmental impact when shopping (Hamilton, 1996).
- Local food: The British consumers generally understand 'local' to mean within a radius of 30 miles or from the same county. It also defined as food with a regional provenance (Padbury, 2006; Soil Association, 2005).
- Food miles: It is defined as the distance in kilometres or miles that food travel from farm gate to consumer (Paxton, 1994).
- Stakeholders: Dictionary define stakeholder as one who has a share or an interest, as in enterprise. Organic farming system consists of many stakeholders such as producers, consumers, supermarkets *etc.*

1.5 Structure of the Thesis

The thesis consists of eight chapters. The first chapter introduce an introduction to the research, aims, and objectives. The second chapter critically reviews the current literature relevant to the research subject and identify the gaps within the current literature. In addition, this chapter will address the research questions. The third chapter covers theory formulation, developing the conceptual framework and formulate hypotheses to be tested. Chapter Four explains the methodology and research design and consists of two parts: Part 1 introduces methodological review of both quantitative and qualitative approaches. Part 2 illustrates design and the methods used in this research. Chapter Five presents the results and analyses of the gathered data. Chapter Six illustrates and critically discusses the results and findings. Chapter Seven is the conclusions and recommendations.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Organic farming in the UK

The main source of up-to-date information on the UK agricultural sector including organic, is DEFRA. Its relevant reports suggest that the total area of organic land and in-conversion land in the UK as at January 2006 was 619,852 ha Table (1). Of this figure, 85,951 ha (14%) was in-conversion and 533,902 ha (86%) was fully organic. Whilst the fully organic area has decreased by 14% from January 2005, the area of land in conversion has risen by 63%. This represents just fewer than 4% of the total agricultural area (excluding common grazing) in the UK. The areas in England, Wales and Northern Ireland have all increased slightly although the area in Scotland has decreased by over 97,000 ha (28%) from January 2005 (DEFRA, 2006). Table (1) illustrates organic and in-conversion lands in the UK.

Table (1): Organic and In-conversion Land in the UK (Jan 2006)

	In conversion	Organic	Total (ha)	Total Agric. area (ha)[(1)]	% of total Agric area
North East	6,643	29,296	35,939	584,373	6.2%
North West	3,236	18,858	22,094	905,086	2.4%
Yorkshire & Humberside	2,341	89,78	11,319	1,101,450	1.0%
East Midlands	2,434	13,172	15,606	1,226,476	1.3%
West Midlands	3,218	27,011	30,228	952,575	3.2%
Eastern	2,649	11,782	14,431	1,467,469	1.0%
South West	21,979	94,008	115,988	1,845,360	6.3%
South East (Inc London)	10,723	35,250	45,973	1,195,601	3.8%
England	53,223	238,355	291,578	9,278,388	3.1%
Wales	12,808	58,024	70,832	1,448,683	4.9%
Scotland	16,724	231,206	247,930	5,517,140	4.5%
Northern Ireland	3,196	63,17	9,513	1,029,500	0.9%
UK	**85,951**	**533,902**	**619,852**	**17,273,711**	**3.6%**

Source: DEFRA organic statistics, 2006
[(1)] Excludes common grazing land

By January 2006, 619,852 hectares of land were managed to organic standards across 4,343 organic and in-conversion holdings in the UK (Soil Association, 2006). Table (2) shows the number of registered organic and in-conversion producers across UK.

Table (2): Number of registered organic and in-conversion producers in the UK 2004-2006

Region	January 2004	January 2005	January 2006	% of annual change
Northeast	73	78	103	4.1%
Northwest	165	164	170	2.8%
Yorkshire & Humberside	132	137	140	32.1%
East Midlands	217	212	218	3.7%
West Midlands	320	320	338	5.8%
Eastern	250	244	254	15.3%
Southwest	1007	1008	1162	5.6%
Southeast and London	406	399	422	2.2%
England	2570	2562	2807	9.6%
Wales	610	640	681	24.4%
Scotland	687	632	636	0.6%
N. Ireland	150	176	219	6.4%
UK total	**4,017**	**4,010**	**4,343**	**%8.3**

Source: Soil Association, 2006a

2.2 Certification bodies in the UK

According to Greer (2002), the United Kingdom Register of Organic Food Standards (UKROFS) currently approves nine private organisations as inspection and certification bodies, differentiated by approach, function, and territory. These organisations are:

1. The Soil Association.
2. Organic Farmers and Growers Ltd.
3. Scottish Organic Producers Association.
4. The Organic Food Federation.
5. The Bio-Dynamic Agricultural Association Certification Ltd.
6. The Irish Organic Farmers and Growers Association.
7. Food Certification Scotland Ltd.
8. Organic Trust Ltd.
9. CMI Certification.

The history of the organic movement in the UK is very much bound up with that of the Soil Association (Reed, 2001). Formed in 1946, the Soil Association has over 30,000 members/supporters, and annual income of £2.75 million, employs over 80 people, and certifies over 70 percent of organic products sold in the UK (Reed, 2001). In addition, the Organic Farmers and Growers Ltd certify around 25 percent of the organic market in the UK covering approximately 300 producers and 100 processors (Greer, 2002).

It appears that there were several certification bodies in the UK however; the soil Association seems the biggest organic certification, which represents the largest single group of organic farmers in the UK.

Organic farming systems have many players and involve many factors. These may be producers, consumers, retailers, small organic processors, government policy, the environment, the market, and other agents, which play a significant role in developing the whole sector. For the purpose of this research, it was considered important to have a manageable focus. The initial scoping work identified organic producers, organic consumers, retailers (supermarkets), and alternative market outlets (organic shops, farm shops, box schemes, organic co-operatives, and farmers' markets) as a suitable selection of stakeholders and issues. These were chosen as a key players or issues in the developing organic farming systems, and the investigations focused on this.

2.3 The UK organic producers

The number of UK producers converting to organic is still considered relatively low compared with other European countries (McEachern and Willock, 2004). However, the reasons are not fully known. It may be due to low level of government support or the low acceptance of the ethos surrounding organic farming principles (Soil Association, 2005). The distribution of organic farms within England is skewed towards livestock production, and partly in consequence, the predominantly grass-based regions in the South and West have proportionately higher number of organic producers (Midmore *et al.*, 2001). Compared to conventional UK agriculture, relatively more mixed farms are managed organically, with correspondingly fewer specialised dairy and arable farms. The reasons for the lower uptake of organic farming in the arable sector are not fully understood. It is suggested that it is more difficult to convert arable farms to organic because it is both technically (the more specialised and intensive a system, the more difficult it is to convert) and economically (the better profitability of the conventional arable sector), problematic. This makes farmers less motivated to change (Midmore *et al.*, 2001).

The major goals of organic farmers as stated by Torjusen *et al.* (2001) are:

1) To produce healthy products;

2) To produce more food for direct sales and consumption in the local area;
3) To cater to the needs of consumers by improving communication between farmers and consumers;
4) To increase biological diversity of the farm, establish an appropriate balance between animal and crop production;
5) To take good care of the landscape and environment and the animal living on the farm.

The goals for adopting the system by organic farmers relate to the overall goals of organic agricultural systems as noted in the introduction. Achieving these goals seems to be the main driving force for organic farmers (Hallam, 2003).

2.3.1 Producers' motivations towards organic

In 1978, the first UK survey of organic farmers in England and Wales (Vine and Bateman, 1981), concluded that improvement of husbandry, concerns about quality for humans and stock, debt reduction and the risk associated with agro-chemicals were the main drivers for respondents. Ashmole (1993) found similar producers' motivations to those found by (Vine and Batman, 1981). However, environmental concerns were more dominant. (Fowler *et al.,* 1999; Haggar and Padel, 1996) indicated financial motives for farmers converting to organic production. In addition, organic farmers realize that the organic farming system is base on fundamental values regarding the environment, food production, farming, and society (Hermansen, 2003). It is suggested that British farmers have shown rapidly increasing interest in organic farming. Many organic farmers are concerned by the use of synthetic pesticides (herbicides and insecticides), considering them to involve expose of nature, their families, and themselves to poisons (Regouin, 2003). However, one major driving force, which may help explain changing producer attitudes, has been an increase in consumer vocalisation over production methods and their desire for healthier food consumption (McEachern and Willock, 2004). Additionally, organic producers and consumers share a common concern for the health of people, and for the natural environment and production, system where food is produced (Torjusen *et al.*, 2001). In addition, organic producers and consumers are attracted to organic because of the perceived improvement in food and environmental safety (Haker, 2004). Another factor influencing conventional producer's attitudes towards organic farming was the conversion support package offered by the Department

for the Environment, Food and Rural Affairs (DEFRA). Although this support is criticised for being weaker than that offered to other European counterparts (Holden, 2001; Vizoso, 2001). Organic producers are still receiving a premium of 50% for their agricultural produce, compared to the depressed prices for conventionally produced crops (Brennan, 1999; Cunningham, 1999). However, as financial assistance for organic production continues to be provided only during conversion in the UK, lack of support after conversion forces some producers to contemplate dropping out of organic farming (Younie, 2003). Similarly, the Soil Association reported that there is still a lack of funding for the conversion process. This lack may drive up the cost of organic food to the consumer, limiting its availability and distorting the market in favour of import (Mintel, 2000). This is a serious barrier and an important issue.

Organic farming is attractive to producers mainly because of economic arguments such as higher prices for producers and higher subsidies. Lampkin and Measures (1995) reported, for example, that organic prices in the UK were 50% to 100% above conventional price for cereals and vegetables. These economic factors may drive the conversion decision for many new organic producers. This may be in contrast to the past, when ethical issues were the stronger driver. It was estimated that retail sales of organic products in the UK were worth approximately £1.6 billion, an increase of 30% on the previous year (Soil Association, 2006). In addition, the prospective market is probably the most important factor for a farmer when deciding to take up organic farming (Dabbert, 2003). Newman *et al.* (1990) found that being financially viable was important and that this motivation was usually stronger than the environmental ones. However, Dabbert, (2003) indicated that the desire to apply an environmentally benign system is often a motivation. Another study by McEachern and Willock (2004) indicated that producers had three main motivations for moving towards organic, environmental, ethical, and social. Additionally, De Cock, (2005) suggested that both economic and non-economic determinants of adoption, such as psychosocial characteristics, are found to influence the decision to convert. Several authors (Morgan and Murdoch, 2000; Schoon and Grotenhuis, 2000) observed a difference in motivation between farmers of older organic farms and the farmers of newly established organic farms (those who are actually going to expand the organic sector). The earlier organic farmers put considerably more weight on concern for the environment, disagreement with developments in conventional farming, and better agricultural procedure than did the newly established organic farmers. For their part, the latter put more emphasis on

the professional challenge and the fact that organic farming seems to be the future, and with better farm economic prospects. However, the investigation also showed that the newcomers were quite committed to the goals of organic farming. Some researchers concluded that there were no major differences in motivations between groups (Michelsen, 2001).

Other surveys conducted by Banks and Marsden, (2001) found that gender is a factor in conventional farmers' attitude towards organic especially the horticultural production. The survey found a higher proportion of female growers among the organic horticulturalists compared with conventional. This finding may not be generalised across all types of organic production activities. Similarly, Padel (2001) suggested that organic farmers are more likely to be women. However, a study conducted by Lobley *et al.* (2005) did not support that. Lobely *et al.* (2005) found women ran a small proportion of organic farms in the sample. Farmers' age is also of important where higher proportion of organic farmers were younger. A study conducted by the Soil Association indicated that organic farming is attracting younger people into farming compared to the farming industry as a whole. On average, organic farmers in the UK are seven years younger than non-organic farmers, whose average age is 56. The study also revealed that the proportion of organic farmers aged less than 55 years is above 20% higher compared to non-organic farmers (Soil Association, 2006c).

It appears that organic producers' motivations toward organic are mainly health concerns, environmental safety, ethics and finance. However, these issues are considered debatable. Economists point out that food production in general is becoming increasingly politicised. Pressure groups are pursuing their political agendas through the marketplace rather than the legislature (Schweikhardt and Browne, 2001), and organic foods are at the very centre of the political debate (Orden and Paarlberg, 2001). The debate has implications for the profitability and survival of small farms that face competition from low-cost and bulk-product enter-prises, as well as being driven by changes in consumer choice of foods. Most of previous studies (Hormones, 2003; McEachern and Willock, 2004; Haker, 2004) do not fully integrate and interrogate such findings.

In order to be better informed of these issues, the motivations of organic producers not only need to be quantified but also along with these of other key stakeholders need to be

interrogated. How these interrelate to each other and impact on development of organic farming need to be effectively investigated.

2.3.2 Producers' information

The provision of information and advice about organic farming is very important. Only with access to suitable information can farmers who are considering conversion make an informed choice about the implications for their particular circumstances. Organic producers and their organisation are an important source of information to those interested in organic production (Lampkin, 2003). In addition, the farming press, accreditation organisations and state bodies, other farmers, friends, books and publications seem the main sources for organic farmers who are interested in converting from conventional to organic (Howlett, *et al.*, 2002). However, many producers mentioned difficulties in gaining access to high quality information and that the quality of information available is generally poor and insufficiently specific (Midmore *et al.*, 2001). The producers added, "Most advice seems to be directed at beginners, with little technical or practical advice available for those already converting or beyond." They suggested that the best place to obtain good advice and information was from other farmers who are already organic. It seems availability of information about organic agriculture was not available for producers and there were difficulties in getting access to high quality information (Midmore *et al.*, 2001). This is an important issue and needs to be investigated since information and knowledge are key factors for producers to make the right decision (Harper and Henson, 2001).

2.3.3 Producers' barriers

Although there are significant barriers that stop them from progressing the idea, there is evidence that large numbers of conventional farmers have considered conversion. Poor access to information and advice, concerns about technical issues such as weed and pest control, lack of confidence in the rate of development of markets, the continuance of premiums, and the commitment of government to support the sector are the major barriers, facing organic farmers in the UK (Midmore *et al.*, 2001). Some of these difficulties relating to standards "documented agreements containing technical specifications and other precise criteria to be used consistently as rules, guidelines and definitions of characteristics, to insure that materials, products and services are fit for

their purpose" (Merrigan, 2003). Other difficulties include consistency and stability of financial support, the structure of regulation of organic certification, access to markets, and certification fee. These difficulties were considered barriers for some producers (Midmore *et al.*, 2001). As indicated earlier by (Younie, 2003) stopping financial support from the government after conversion becomes a major obstacle facing organic farmers and makes them drop out from the organic system. There are also concerns about the level of investment and labour requirements needed to convert farming systems to organic production. Additionally these worries about conversion were restricting future development options for farms. In addition, some producers indicated that organic farming demanded higher levels of commitment and knowledge compared with the requirement of conventional systems (McEachern and Willock, 2004).

As indicated by Howlett *et al.* (2002), disease control in animals, lack of market outlets, structural changes on the farm, technical issues (including problems sourcing materials), reduced yields, and effective farm management are all considered serious barriers to conversion from conventional to organic. Figure (2) illustrates the first of the key players in the organic farming system namely the producers. Based on the scoping studies and literature review, organic producers are classified as livestock, dairy, arable and horticulture. The main motivations are health concerns, environmental protection, ethical issues and profits. However, they found some difficulties in accessing currently available information and advice. The key source of information for organic producers seemed to be other farmers whom already organic and some organisation such as the Soil Association. The diagram below shows the potential relationships between drivers, barriers, and information, to help focus and guide the investigation.

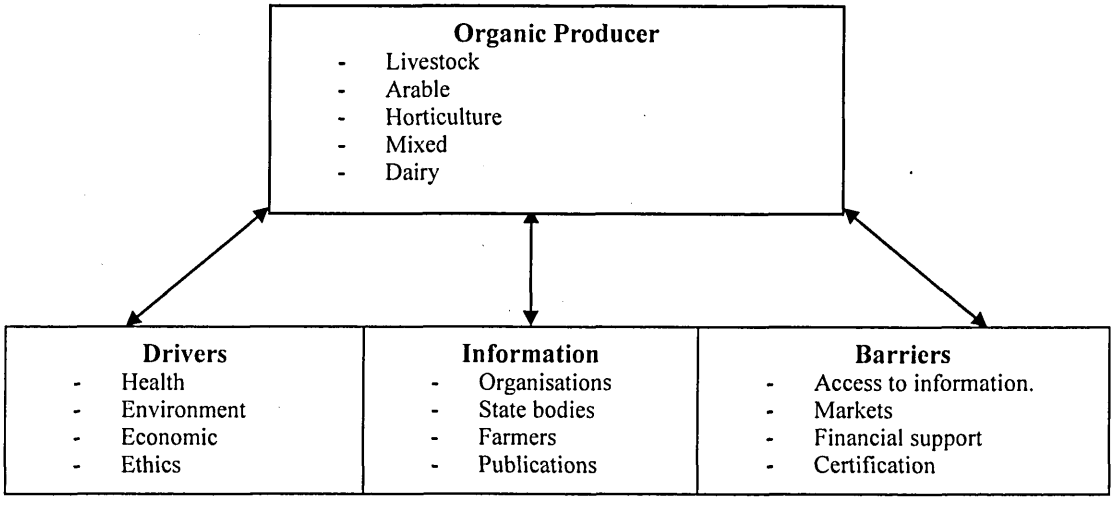


Figure (2). Drivers and barriers for organic producers.

2.4 The UK organic consumer

Organic food can be defined as the product of a farming system that avoids the use of synthetic fertilisers, pesticides, growth promoters, and additives (Kouba, 2003). There have been many studies, which examine consumers' perception of organic food, their attitudes, and reasons for purchase (Harker, 2004; Soil association, 2005; Mintel, 2003; Hallam, 2003; Kouba, 2003; Bank and Mardsen, 2001). Consumer attitudes towards food in general are a key driver of sales of organic food (Mintel, 2003). Consumers' decisions on how their organic food is produced, processed, handled, and marketed are also key factors influencing the organic food production chain. Organic foods are attractive to consumers in various ways; some related to the products themselves and some to how they were produced (especially their presumed lower environmental impact, more human treatment of livestock, and the shorter distance and more direct connection between producers and consumers) (Lockeretz, 2003). Pederson (2003), argued that consumption of organic food is a matter of affordability, as organic food is more expensive.

2.4.1 Drivers for buying organic food

According to market research, there are a number of motivations for purchasing organic food. These include health, environment, taste and quality, animal welfare and ethical (Hallam, 2003).

2.4.1.1 Health

Healthiness and nutritional value are reasons given by some consumers for purchasing organic foods (Kouba, 2003). Moreover, better taste, being like home-grown, being free from Bovine Spongiform Encephalopathy (BSE), Genetically Modified OrganismS (agricultural plant or farm animal that has had its DNA modified using a process called genetic engineering) and food additives are motivations for buying organic food (Makatouni, 2002). The UK market research showed that 36% of consumers buying organic food did so because of the perceived reduced health risk (Hallam, 2003). Another studies (Chinnici *et al.*, 2002; Magnusson *et al.*, 2003; Baker *et al.*, 2004; Lockie *et al.*, 2004) made similar conclusions of health concerns and food safety as the main motivations to purchase organic food. The consumer's confidence in British

retailers is falling, with 62% of consumers believing that the food industry puts profit before public safety (McEachern and McClean, 2002). The last few years have seen the UK food and farming industries wracked with food scares. Through *Salmonella* in eggs, BSE, *E. coli*, and Foot and Mouth Disease, consumers feel they are unsure of what they are eating. The recent crises have frightened the consumers. All these issues have encouraged the consumers to buy organic products (Sylvander, 1999). Understandably, people want the situation to change, and organic food with its strict production guidelines looks like a safer option. People also feel it is more 'natural' than conventional farming (BBC, 2001). In addition, there is serious concern among the public about genetically modified food. Food certified as organic is not allowed to contain genetically modified ingredients, and so concerned consumers may buy organic food to be sure of avoiding anything genetically modified (Hallam, 2003). Makatouni, (2001), conducted a research project on what motivates consumers to buy organics in the UK and concluded that the healthiness of food (food contamination with pesticides and antibiotics, BSE, and GM food) is the main motivation to buy organic.

Many individual growers and consumers are attracted to organic approaches because of the perceived improvement in food and environmental safety (Harker, 2004). Among the reasons for buying organic food, health was by far the most important. Forty-six percent of those buying organic food gave it as their primary concern, and 40% claimed that organic food tastes better (I.F.S.T., 2001). In addition, the new consumer appears to be more selective and less holistic, often focusing primarily on personal health and safety concerns (Banks and Marsden, 2001). A survey conducted by the Soil Association concluded that one third of the public buying organic food, primarily perceived it as: healthy/better for you (53%), tasting better (43%), free of genetically modified organisms (30%) and environmentally friendly/animal welfare friendly (25%) (Soil Association, 2000). A study conducted in Scotland (McEachern, 2000) indicated that the main motivations for buying organic meat were due to perceived health and higher standards of animal welfare. However, there is no scientific evidence that such foods possess additional benefits, which conventional food does not possess. Honkanen *et al.* (2006) indicated that most of the research concludes that there is no evidence that organic food is healthier or more nutritious than conventional food. Therefore, despite the tremendous amount of research that highlights the importance of health concern as a major motive for consumers to buy organic, the issue remains debatable. It is argued that without the use of pesticides, organic crops develop natural defence mechanisms.

This is mostly through secondary plant metabolites called 'phenols'. The organic supporters claim that these chemicals are antioxidants and that organic fruit and vegetables are better at protecting the body from cancers and heart disease. However, organic-sceptics argue that these natural pesticides may be a potential health risk and insist that there is no evidence to show health gains from organic food (Surman, 2007). This lack of evidence, however, may be due to the difficulty in conducting such a study.

2.4.1.2 Environment

The potential environmental benefits are a key issue in relation to organic food, as this is one of the fundamental principles of organic farm management (Hallam, 2003). Since the scientific case for the real health benefits of consuming organic foods is yet to be conclusively proved, the most tangible benefit of organic farming remains the potential of a positive impact on the environment. Compared to conventional systems, the organic production system has two main features that lead to potentially different environmental impacts. The first feature is the limits placed on the use of chemical fertilisers, pesticides and fungicides (Jones, 2003). This is likely to lead to a reduction in pollution from agricultural practices. Studies in Europe (DEFRA, 2002) concluded that organic farming generally results in lower pesticides and lower or similar nitrate leaching rate than conventional agriculture. The studies also concluded that the impacts of organic system on climate and air quality are hard to quantify. It is cleat that they depend on the management practices adopted by individual farmers, particularly in relation to animal housing system, mechanical weeding, storage and handling of manure.

The second feature of organic system according to Jones (2003) is the reliance placed on farm-internal nutrient supply. Evidence suggests that organic farming tends to conserve soil fertility better than conventional farming systems and to have a higher level of biological activity in terms of the abundance of earthworms. However, there is no reported difference between the farming systems with regard to soil structure (Haring *et al.,* 2001). Another study conducted by FAO (2002) revealed that the higher levels of organic matter and practices of minimum tillage in organic systems, increase the water percolation and retention ability of the soil and that is reduce irrigation needs.

In terms of biodiversity, there is higher abundance of insects such as spiders, mites, centipedes, millipedes *etc.* in organic agriculture systems compared with other production systems (OECD, 2001). This is possibly linked to the absence of pesticides,

the lower density of crops and the higher incidence of weeds providing food sources. Moreover, organic systems perform better in respect to floral and faunal biodiversity (Stolton *et al.,* 2000). Through the use of crop rotations, organic farming can encourage landscape diversity, which in turn enables a diversity of habitats to the benefits on local wildlife populations (Jones, 2003).

Organic consumers believe that organic farming delivers benefits to the environment and for wildlife. Bartram and Perkins (2003) reviewed thirty-three papers that compare biodiversity on organic and conventionally managed farming systems in the UK. They concluded that organic farming system has positive impact on different taxonomic groups and species (these include soil microbes, birds, butterfly, spiders, beetles, and flora). Over one-in-three consumers are willing to pay a premium for environmentally friendly products (Mintel, 2003).

Aside from the nutritional and health issues of food production, there have been some concerns regarding the environment. Makatouni (2001) indicated that British consumers were very much concerned about the environment, in terms of intensive farming methods, pesticide use, pollution including radiation, and their impacts on food. These issues become major drivers toward buying organic food. The trend towards increased consumption of organic food can be linked to a broader concern about environmental issues (Soil Association, 2000). Another study conducted by Makatouni (2002), concluded that protection of the environment is a key driver for consumers to buy organic food. By protecting the environment, parents believe that they protect their families' wellbeing. They want their children to be brought up on a healthy planet that they aim to inherit. They believe that any destruction of environmental balance will have effects in terms of human well-being. Hallam (2003) concluded from his survey that consumers buy organic food because of their belief that they are protecting the environment.

2.4.1.3 Taste and quality

Taste is another key driver for people to buy organic food is taste, especially for specific products such as eggs, chicken, organic fruits, and vegetables (Soil Association, 2003). When consumers of organic food where asked why they purchase organic food, one reason was the taste, but also value (Grunert and Hull, 1995). Another study conducted by Hallam (2003) showed that 31% of organic consumers felt organic foods tasted

better and 25% felt they were more natural. Grunert *et al.* (2001) classified organic food quality into three major categories. These categories may be of interest to organic food consumers:

1) Hedonic quality, which related to sensory pleasure such as taste, smell and appearance;

2) Health-related quality, which, concerned with ways in which consumption of the product will affect consumers' physical health;

3) Process-related quality that relates to characteristics of the production process in which consumers have an interest.

In another study, Makatouni (2001) concluded that a group of British consumers perceive organic food as a means of achieving individual and social values. Of these the most important centres on the health factor either for themselves or for their families.

A telephone survey conducted by British Market Research Bureau (BMRB) in 2005 suggested that the proportion of shoppers consciously buying organic food is growing. The quality and taste of food are important to more people than low prices (Soil Association, 2005). Organic food quality appears to be one of the most important motivations of consumers to buy organic products. Organic food quality can be defined as product-specific characterisations which consumers form based on the product characteristics, and which they believe indicate the usefulness of the product in fulfilling purchase motives (Grunert *et al.*, 2001). For example, consumers are interested in a fat content of a cheese (product characteristic) because they believe it is related to the taste (food quality) of the cheese, which will lead to enjoyment (purchase motives) while eating. For other consumers the fat content may be related to healthiness (food quality), which is related to a long and happy life (purchase motive). McEachern (2000) concluded that quality standards and quality assurances are motivate consumers to buy organic food. It is clear from the literature that the environmental and health claims of organics are controversial (Grunert *et al.*, 2001).

A study by Heaton (2001) evaluated 400 published papers and reports assessing the safety, nutritional content and observed health benefits of organic foods. It concluded that despite a great deal of contradictory evidence, on balance it appears that organic foods contain fewer harmful additives. They also had more primary and secondary

nutrients than conventional foods and apparently carry no additional risk of food poisoning. Moreover, many consumers are turning to organic foods in order to avoid GM and irradiated foods (Larue *et al.*, 2004). In contrast, Kouba, (2003) indicated that there is no clear evidence that organically produced food is safer or more nutritious than conventionally produced food.

Torjusen *et al.* (2001) mentioned to consumers' orientations in purchasing organic products. These orientations could be 'local orientation' which describe locally produced food as well as support to local production, 'social orientation' such as giving and receiving information through personal contact and experiencing the shopping as pleasant, and 'practical orientation' such as low price, short distance from home and easy parking. In the same study, Torjusen *et al.* (2001) highlighted factors including consumer's concerns with regard to organic food. The first factor was the "reflection factor" which linked to food attributes, such as nutrient content, no health harming substance, and no use of GMOs. These characteristics are directly observable, but demand reflection on the part of the consumers. The second factor was an "observation factor" which linked to food attributes, such as taste and freshness, which are directly observable, either through vision or through other senses.

2.4.1.4 Animal welfare

Organic food production in the UK has strict rules on the treatment of farm animals and the environments in which they are kept. The issue of animal rights is important to some consumers and has an impact on their shopping habits in addition to wider lifestyle choices (Shaw *et al.*, 2005). Animals' lives and human life are highly correlated and the animals' life can have impact on human health. The concepts "you are what you eat" and "happy animals produce healthy products" perfectly reflect the relationship between animals and health and seem to be the reference point in the purchase of meat and livestock products (Makatouni, 2001).

Harper and Makatouni (2002) indicated that there is a majority of organic consumers concerned (or very concerned) about animal welfare and willing to pay for improved animal welfare standards. However, Harper and Makatouni (2002) argued that while animal welfare may be one of the main reasons for buying organic food, it is not clear to what extent the consumers are motivated by concern for the animal or concern about the impact of the animal's quality of life on the food product.

2.4.1.5 Ethical issues

Ethical and moral reasons for buying organic food are considered major drivers for some organic consumers (Worcester, 2000; Morris, 1996). There is a group of consumers considered responsible for the sustainable growth of organic markets. This group is the 'ethical' or 'green' consumers who consistently seek product or company information and attempt to integrate a variety of environmental and or societal influences with their buying behaviour (McEachern and McClean, 2002). In the UK, only 10% are recognized as being hardcore 'green' consumers (Curlo, 1999). Green consumerism is a multi-faceted concept, which includes environmental preservation; minimization of pollution; responsible use of non-renewable resources; animal welfare; and species preservation (McEachern and McClean, 2002). Several ethical reasons have also been identified to explain the current increasing demand for organic foods. These reasons as indicated by (McEachern, 2000) are a declining condition of the environment, threat to animal and human life, and heightened publicity over genetically modified crops, which are fed to livestock. Sixty percent of the organic, food-buying public said they were more likely to buy if the product was from the UK (Soil Association, 2003). In addition, consumers are concerned about standards, food quality, and food scares. Consumers expect higher moral and ethical standards, and want farmers to not over-exploit soil or livestock. They want to know that they are not being exploited when buying organically produced food (Pederson, 2003). However, many consumers have benefited from higher levels of Personal Disposable Income (PDI), which is a factor facilitating the research of organic food (Mintel, 2000).

Additionally, organic farming is more important to consumers as citizens than as purchasers of food. Not only do consumers eat products, they also live in countries where agriculture has changed the landscape (Pederson, 2003). Makatouni, (2001) indicated that ethical issues (animal welfare and fair trade) and memories from the past (organic buyers identified organic food as food that has the same values with the food that was produced in the past) are motivations to buy organic. The concerns / motivations of ethical consumers identified by Browne *et al.* (2000) are:

1) Their own and their families' health - what is in the food and the environment;

2) How the food is produced, animal welfare - human treatment of animals;

3) Helping people in the Developing World - not exploiting the people who produce food.

The growing interest in organic and ethical production and trade has been both consumer-driven and trade-driven.

2.4.2 Organic consumers' barriers

The main reasons that prevent consumers from buying organic food are high price, lack of availability, satisfaction with conventional food, lack of trust, the limited choice, and lack of perceived value (Soil Association, 2000; Mintel, 1999). The main problem reported from UK consumers is that they cannot rely upon the food industry to give them the full facts about the products they buy (e.g. country of origin and labelling). A survey conducted in 2001 (Anon., 2001) indicated that the main reasons for not buying organic food were: cost 42%; not seen in shops 15%; and less variety 10%; with 4% not buying, as it does not taste any better. Another survey conducted by the National Farmers Union showed that 'an alarming 70% of the British public have no idea what food the farmers' in their local area produce' (National Farmers Union, 2000). Makatouni, (2001) indicated that organic buyers commented on the high price of organic food and that they would like it to be lower. They did not like the fact that they could only buy organic food pre-packed; they would like to see organic food being sold loose, in bigger packaging sizes. They also found contradictory the fact that organic food was packed with plastic cellophane although organic farming is an environmentally friendly production method. They also did not like the fact that organic food was not widely available in supermarkets. In addition, they were concerned about the lack of consistency in the quality of organic food. Organic buyers also expressed difficulties regarding the disapproval of the appearance of organic food by their children (bruises and blemishes), and they would be happier with a better display of organic food inside the supermarkets. This might be a different section, or even in supermarkets completely devoted to organic food. It seems that price, GMOs and availability are the three major factors that influence grater purchase of organic food in the UK.

2.4.3 Consumers' information

Organic consumers rely on a variety of sources of information about organic food. Sources cited include non-governmental organisation (NGO), labels, alternative shops,

retailers, the media or family and friend. However, knowledge of the relative importance of different sources is limited (Tallontire *et al.*, 2001). Makatouni (2001) highlighted key issues regarding available information to consumers. Organic buyers were in favour of more stringent regulations in the certification bodies and evidence of quality cited by an independent organisation such as the World Health Organisation. Additionally, they would like more information about the source of food. They were keen on seeing fewer imports of organic food as they wanted to support the local, British producers. However, some consumers felt confused about the different certification bodies that operate in the UK, about the different terminology used e.g. organic, biological, ecological, *etc.* They also believed that the information offered to them regarding organic was not enough. Consumers did not trust the nutritional information given to them by the government, doctors, retailers, or other organisations. In contrast, Hermansen (2003) indicated that there is a general preference in many European countries for locally produced food because of a lack of confidence in foreign products for which less is known about production conditions, *etc.* Hermansen (2003) concluded that the preference for locally produced food has been part of the motive for buying organic food.

Another survey conducted by T.N.S. (2003) on behalf of the Soil Association revealed that one in seven agreed that not having enough information to justify the price premium was deterring them from buying organic food. In the same survey, T.N.S. (2003) concluded that the ability to locate and identify organic food in stores had been cited as a potential obstacle to sales of organic products. It would appear that there is considerable confusion about what is and what is not organic. Another study conducted by Harper and Henson (2001) suggested that there is a lack of trust on sources of information, especially the government and the food industry. Here is again the lack of information may be one of the main barriers for consumers (as it was for producers) to purchasing organic food products. The point is, if consumers do fully understand issues around organic food and if they do not trust the currently available information, they could make informed choices. However, this is suggested that concerted consumer education has the potential to win the support of more new consumers (T.N.S, 2003).

It is appears that health, and environmental concerns are the major motivations to organic consumers. Price and availability of products are their major concerns. NGO and media are their major source of information however, consumers' knowledge about organic food still limited. Additionally, increased knowledge of consumer attitudes and

valuations in the marketplace, and particularly their relationship to the basic principles of organic farming is still needed. If there is cooperation between consumers and producers, there is potential to build broad alliances or groups that can push ahead for greater production and consumption of organic food. Figure (3) below illustrate the second important player of the organic farming system namely the consumers. Organic consumers are considered both as individuals, and as other outlets such as hotels, schools, restaurants and hospitals. They are seems to be motivated by health concerns, environment taste and ethical issues. However, prices are their main barrier. The media, friends, and NGOs appear to be the main sources of information for consumers. Again, this is based on the scoping studies and a literature review. This attempts to show the potential relationships between drivers, barriers, and information, to help focus and guide the investigation.

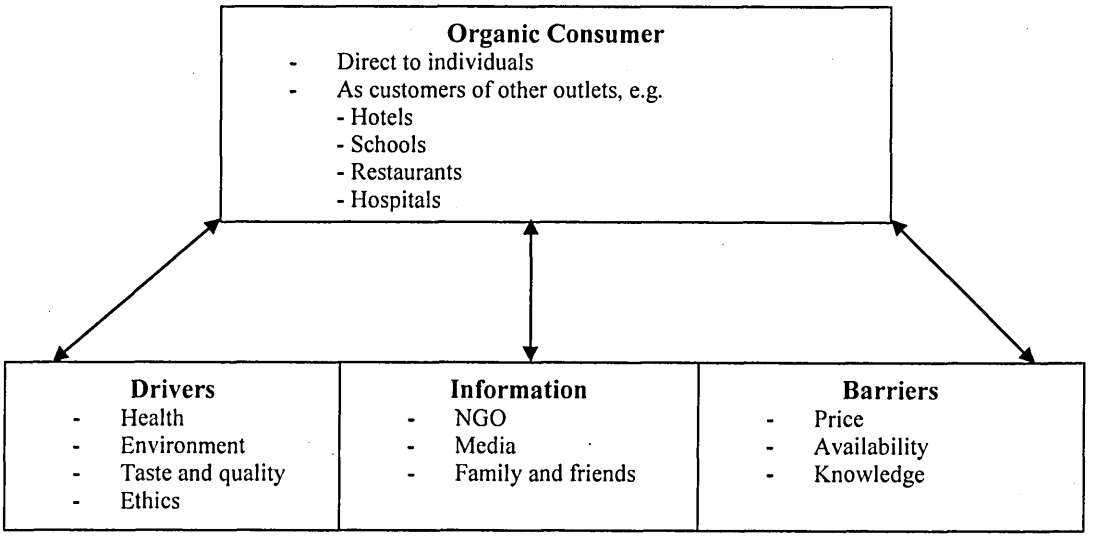


Figure (3). Drivers and barriers for organic consumers.

2.5 Marketing and retail

2.5.1 Organic market in the UK

According to the latest report of the Soil Association, the UK organic market has grown rapidly over the last decade; retail sales of organic products were worth an estimated £1.6 billion with an increase of 30% on the previous year (Soil Association, 2006a). The report also concluded that between 2004 and 2005, sales of organic products through the multiple retailers increased by 31% to £1.2 billion. Retail sales made through producer owned outlets, such as box schemes, mail order, shops, and farmers' markets,

increased by approximately 11% to £125 million in 2005. The retail sales through non-producer owned box schemes, mail order, and shops increased by 38% to £259 million. With sale of organic food reaching £1 billion for the first time, the UK is regarded as the third largest market in the word behind the USA and Germany, whose sales total £5.9 billion and £1.6 billion, respectively (Brown, 2003).

The most important limit of the expansion of the organic food market is the availability of the products. The idea that the "availability limit" is more important than the "price limit" is encouraging because among the actual non-buyers there are many consumers with problems of finding organic food. Render the organic food more available will change, almost automatically, non-buyers into buyers (European Action Plan for Organic Food and Farming, 2004). Similar conclusions were drawn by Burt and Sparks (1997), which poor availability and lack of supply appears to be the two major factors impeding the growth of the UK market. In addition, the small supply-base is the main problem from which the UK market is suffering (Burt and Sparks, 1997). The existing marketing structure dominated by supermarkets, which failed to offer sufficient incentives (price premia) for producers to convert to organic practices. Despite the fact that supermarkets are the largest distributors of organic products in the UK, they do not appear to be successfully meeting demand (Latacz-Lohmann and Foster, 1997). In addition, wider availability of organic foods could lead to lower prices and this would provide further market opportunities both to local producers and to exporting countries (Martinez and Banados, 2004). The organic retail market has continued to develop with direct sales and independent retailers. Direct and alternative market sales, such as box schemes, farm shop, farmers ' markets, and mail order were worth an estimated £144 million or 11.9% of the market (Soil Association, 2005).

According to the Mintel report (2003), the future growth of the market would be dependent primarily on core organic consumers purchasing a greater weight of organic product. Several studies have looked at the reasons why consumers do not buy organic products. The most important reason is that they find the price too high. At a farm level, the main reasons for higher costs include lower crop productivity and yields, additional costs for labour input, and the cost of inspection and certification (European Action Plan for Organic Food and Farming, 2004). It appears that the main obstacles for further growth of the market for organic products appear to be the high price to the consumer. The typical price premium that consumers have to pay is about 50-60%. In line with

general market economy principles, the organic premium can only be maintained if supply growth is in line with demand. It is essential for the future development of the sector that supply and demand grow hand-in-hand and that the share of organic products becomes sufficiently large to establish a big enough, stable market (European Action Plan for Organic Food and Farming, 2004). Clearly, the incentive to many producers to convert is the higher price received, but for many consumers the high price is the major barrier. This is a serious conflict.

2.5.2 Food retailers/Supermarkets

2.5.2.1 The role of supermarkets

The rapid expansion of the market for organic foods has been linked with shifts in the structure of retailing. In countries where organic foods are mainly sold via supermarkets, growth and market shares are higher than in those where specialised shops are the main marketing channel (Willer and Yussefi, 2001). The big retail chains have played a significant role in bringing organic products to a wider market and will be a major force in the future. For example, supermarkets account for 80% of organic food sold in the UK (Hallam, 2003). Supermarkets are the dominant channels through which UK consumers purchase organic food. This dominance has been increasing and resulted in the UK having the fastest growing organic market in Europe (Soil Association, 2001a). The dominant role that major supermarkets in the UK play in the organic foods retail chain, and stated preference for UK organic products, appear to offer a very bright future to indigenous producers (Sainsbury's, 1997; TESCO, 2001a; Waitrose, 2002).

Banks and Marsden (2001) indicated that the organic movement wished to expand the market for organic foods leading to more land under organic farming and more consumers. The most obvious way of achieving this is, through engaging with supermarkets who act as a key gateway to the mass market. Burt and Sparks (1997) indicated that the movement of organic food into mainstream retailing, in particular supermarkets, could be the most important factor in increasing market size, by providing access to organic food to a wider public. In addition, organic sales through supermarkets are the fastest-growing distribution channel in most markets. Another point addressed by Hallam (2003) regarding 'supermarket' involvement is that with their centralised systems of purchasing and distribution this may result in pressure to reduce

the current price differential between organic and conventional products. In contrast, Smith and Marsden (2004) argued that the likelihood of continued growth in the retail value of organic foods in the UK might provide a reason for much optimism across the organic food sector. However, amongst individual indigenous organic producers and organic farming sub-groups, the future is less positive. Smith and Marsden (2004) added that the competitive context for indigenous organic producers (indigenous organic product is a product which can be grown under the UK climatic conditions) has been changing as existing farmers increase both acreage and level of output. This is also the case as new farms gain full organic certification and the general finding has been that increasing organic production has not been followed by proportionate increases in farm returns. This scenario, of rapidly increasing volumes of indigenous organic produce is being exacerbated by steadily increasing imports as the large supermarket chains fine-tune their overseas organic produce supply-chains (Smith and Marsden, 2004).

It is undoubted that supermarkets play a significant role in the UK market and become the main outlet for organic food. Supermarkets may have their own strategies, aims, and motivations for selling and distribute organic products, which may significantly influence the market as well as the organic sector in the UK (Bank and Marsden, 2001). The following section highlights these issues in more detail.

2.5.2.2 Aims and motivations

At present, competition between supermarkets for market share has been evolving towards a price-value strategy (Smith and Marsden, 2004). However, the aim of the main food retailers in the UK is to provide support and encouragement to UK producers in making the conversion to organic farming (Sainsbury's, 1997; TESCO, 2001a; Waitrose, 2002). Sainsbury's aims to increase both the amount of organic foods on their shelves, and the range of organic products available. All organic chicken, beef, milk, eggs, cheddar cheese and in-season lamb are sourced from the UK. Sainsbury's is also committed to sourcing 70% of organic primary agricultural products from the UK, so hitting government targets for 2010 well ahead of time (Sainsbury's, 2005). Like Sainsbury's, the Waitrose supermarket chain signalled its commitment to the expansion of organic farming in the UK during the late 1990s by launching its Waitrose Organic Assistance Scheme. This provides support and encouragement to UK producers in

making the conversion to organic farming (Waitrose, 2002). The UK's largest food retailer, TESCO, has also implemented both producer and consumer initiatives to encourage development of the organic food sector. It aims to develop new technologies and production methods to help farmers make the transition to organic (TESCO, 2001b). In addition, TESCO's aim for organic food in the UK appears to not only have been informed by their own market research, but also seems to be in step with broader academic studies on the elasticity between food prices and consumer behaviour (Wier and Calverley, 2002). In addition, ASDA supermarket (the second largest in the UK with 17% market share and 258 stores) introduced a local produce section in 2001 and now sells 2,500 regionally-produced items from 300 local producers in its stores (Mesure, 2005). ASDA also said it is "actively encouraging local growers and farmers to deliver produce directly to their local store instead of supplying via a regional depot, ensuring it is fresher, has a longer shelf life and has travelled far fewer food miles" (AMS, 2006). Food miles simply defined as the distance in kilometres or miles that food travels from farm gate to consumer (Paxton, 1994). It seems that supermarkets are committed to support organic producers. However, there are few independent studies, to support the perceptions of the supermarkets.

Despite the expressions of support and encouragement from major food retailers for organic farming in the UK, it is increasingly apparent that retailers regard organics as just another commodity range (Smith and Marsden, 2004). The Soil Association (which represents the largest single group of organic farmers in the UK) appears to be less than enthusiastic about the market conditions that this initiative might create. The Soil Association in particularly is concerned that supermarkets fail to pay a fair price for organic produce and the farmers need to be assured that the supermarkets will support them by paying a price that reflects the true cost of production (Soil Association, 2001a). This makes organic farmer increasingly dissatisfied with their relationship with the supermarkets (Tate, 1991). Supermarkets require guaranteed supplies of large quantities of food produced to specified standards (appearance) and at low prices. Farmers on the other hand find it difficult to achieve the required supermarket grades and specifications (Steele, 1996). Similarly, the combination of supermarket price wars and lamentable failure to be loyal to UK producers has driven the price that most dairy, beef and sheep producers receive to below the cost of production (Soil Association, 2001b). Banks and Mardsden (2001), argued that supermarkets offer little to no scope for face-to-face contact or knowledge transfer between producers and consumers (other

than that which can be squeezed onto packaging), and they can thus be seen as contributing to the growing gap of knowledge in food supply rather than reversing the trend. With regard to source of information; organic organisation, the latest organic news, recent press articles, and media are the main source of information for most supermarkets (Thogersen, 2006).

United Kingdom retailers report the highest net margin and gross profit margins for food retailing in Europe. On one hand, this encourages claims that they are the most efficient and best-run retailers in the continent, if not the world. On the other hand, they are said to be using their competitive position to exploit the consumer (Burt and Sparks, 1997). Figure (4) illustrates the third important key player in the organic system. As discussed above, there are several issues that motivate supermarkets to sell and distribute organic food. However, barriers were also identified. All these are presented in Figure (4) which again based on the scoping studies and literature review, this attempt to show the potential relationships between drivers, barriers, and information, to help focus and guide the investigation.

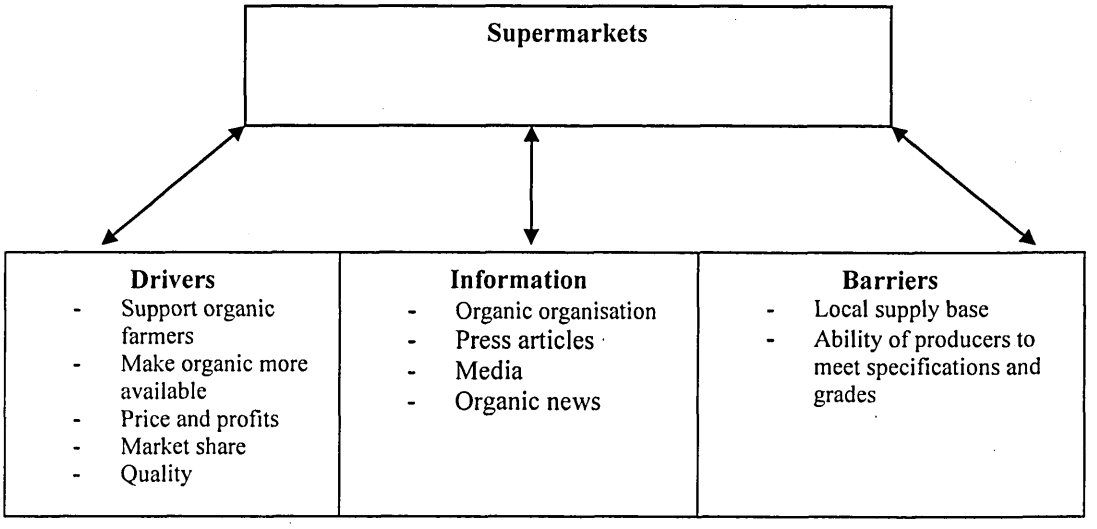


Figure (4). Drivers and barriers for supermarkets.

Economic power can be used to manipulate prices, to influence contracts, and to affect the rules of the game. The end result of economic power is that those who have such power are able to earn profits that are not available to those who do not have it. In our present food system, farmers are the one without economic power (Levins, 2002). This economic power over both farm-gate and retail prices places supermarkets in a very strong and potentially very profitable position within the organic food supply-chain (Smith and Marsden, 2004). Private sector initiatives (largely consumption-orientated)

have joined with public policy initiatives (largely production-orientated) to encourage greater levels of organic production in the UK. This public-private partnership has resulted in tremendous growth in organic production, as well as growth in value of the broad organic retail market in the UK. However, the failure of public policy to mediate the nature of engagement between organic farmers and organic retailers is beginning to cast an ominous shadow across what was previously a very bright future for organic farming in the UK (Smith and Marsden, 2004).

It seems that the information about supermarkets supporting and encouraging organic producers was from one source, the supermarkets themselves. This may introduce a search of the literature revealed little independent validation of the supermarkets' claims.

2.5.3 Organic food supply chain

The supply chain can be defined as "An integrated approach that aims to satisfy the expectations of consumers, through continual improvement of process and relationships that support the efficient development and flow of products and services from producer to consumer" (DPIE, 1998). More and more people are buying organically grown, fresh foods, so much so, that in the UK demand seriously outstrips supply. Increased demand in the UK is not being satisfied; demand in the UK is growing at 40% a year; supply at 25% (Mintel, 2003). Bottlenecks exist throughout the organic supply chain including the lack of organic seed, feed, and infrastructures such as local abattoirs, along with slow conversion of some sectors such as arable and horticulture. In addition, the existing distribution networks do not cater for the scale and requirements of organic production. They are not the right structure for developing local and regional marketing (The Organic Target Bill Campaign, 2001). Due to the current inconsistencies of supply and much of retailer supply coming from overseas, the retailers may squeeze prices to organic farmers as they have with non-organic producers (The Organic Target Bill Campaign, 2001). There are number of ways in which organic food can be marked and distributed, including through either overseas supply-chains or local supply-chains. In the UK, consumers generally understand 'local' to mean within a radius of 30 miles or from the same county (Padbury, 2006). According to this, the UK-based supply chains may not necessarily be local as organic food may transfer from county to county.

2.5.3.1 Overseas supply chain

Whilst the demand for organic foods in the UK is increasing, supply cannot meet that increase. Because of this shortfall, 70% of organic food sold in the UK is imported (Soil Association, 2000). For some commodities, including fresh produce and beverages, the percentage share of imports is above 80%. At the other end of the scale, the import shares of organic meat produce and eggs are minimal at 5% and 0% respectively (Soil Association, 1999). Most imports of organic food into the UK, particularly cereals (except rice) and milk products come from other European countries. However, many certified organic fresh fruits, vegetables and herbs, rice, and the raw materials for beverages (fruit juices such as orange, pineapple and mango, as well as tea and coffee) originate from countries outside Europe. Developing countries supply much of this demand. In 2000, the EU listed current import authorisations for the import of organic food from over sixty developing countries (European Commission, 2000). Within the EU, the UK ranks third as a first destination for the import of organic produce from developing countries, some way behind Germany and the Netherlands (European Commission, 2000). The main supermarkets saw their share fall from 81% to 75% as consumers become more concerned about food miles, packing, and provenance (Lawrence, 2005).

A serious problem for the domestic organic producer arises when UK organic produce is excluded from UK supermarkets as consequence of importation. The cooler climate of the UK is ideal for organic meat and the main staples like carrots, potatoes, onions, and apples. Despite that, some retailers import them because they are cheaper from abroad. The Soil Association indicated in its latest report (Soil Association, 2005), that "significant volumes of organic food are still being imported when UK producers are able meet demand - for example in the red meat sector." The Government's Organic Action Plan aims to encourage retailers to meet the target of 70% of seasonal organic produce being sourced from within the UK by 2010. However, "it is clear that the UK is still a long way from meeting the key target set in the UK's Organic Action Plan" (Soil Association, 2005). Consequently, whilst supermarkets may actually be facilitating strong growth in the broad market for organic across the UK through well-established, overseas supply-chains, theses major food retailers may simultaneously be creating limits to real growth at the UK farmer and organic sub-group levels. The considerable power that supermarkets possess drives broad organic retailing growth; but

simultaneously acts as a constraint on the financial prospects of indigenous organic producers.

2.5.3.1.1 Regulation for importing organic produce

The Council Regulation (EEC) No. 2092/91 as amended, sets out the basic rules covering all aspects of organic food production "from farm to fork". It covers the farming practices to be followed, lists permitted inputs, and details the inspection system required. Food processing is also covered by the Council Regulation, which regulates the processing aids and ingredients used in organic produce. The Regulation also details the rules on labelling organic produce and the rules for importing organic produce. All produce marketed in the EU as organic must comply with these standards or must have been produced to equivalent standards. In the UK, the Department for Environment, Food and Rural Affairs (DEFRA) is responsible for ensuring that EC organic standards are properly applied in the UK by the approved organic inspection bodies. These certify and inspect organic operators. It is also responsible for issuing import authorisations to importers wishing to market organic produce from certain countries to the UK (DEFRA, 2004)

2.5.3.1.2 Products imported from within the EU

Produce from within the EU can be imported into the UK and sold freely as organic, provided it is produced or processed by an operator registered with an approval EU Organic Certification Body (DEFRA, 2004).

2.5.3.1.3 Imports from developing countries

In 2000, the EU listed current import authorization for the import of organic food from over sixty developing countries (European Commission, 2000). Within the EU, the UK ranks third as a first destination for the import of organic produce from developing countries, some way behind Germany and the Netherland (European Commission, 2000). Regulation (EEC) 2092/91 regulates certification of organic produce within the EU. This is implemented in each member state by a national 'competent authority' which in the UK, is the United Kingdom Register of Organic Food Standards

(UKROFS) part of the Department for Environment, Farming and Rural Affairs (DEFRA) (Barrett *et al.*, 2002)

Imported organic produce can enter the EU market by three routes. These are set out under Article 11 of Regulation 2092/91. The first route is Article 11(1), under which countries becomes listed. Currently the only developing country awarded this status is Argentina; the other five listed countries are all in the developed world. Therefore, most producers in developing countries have to seek another route, most commonly using Article 11(6) whereby each consignment of produce receives import authorisation. There is a third route under Article 11(7); however, producers in developing countries are unlikely to be able to make use of this regulation (Barret *et al.*, 2002)

If operating production rules and systems of inspection are not equivalent to those operating within the EU, importers of developing countries may apply for an import permit from their respective EU competent authority. This permission provides that the imported products be produced in accordance with the EU organic production and inspection system standards (Regulation (EEC) 2092/91 Article 11(6) Annex (EEC) 94/92). Import permits are issued for a defined period either for specific products or for product groups from a given EU country (UKROFS, 2000). Exporters in developing countries are not allowed to apply directly for import authorisations; applications must come from EU importers registered with their respective competent authorities. In the absence of a universal agreement among EU member states on what constitute equivalence, competent authorities tend to apply their own national certification standards rather than the EU ones (Barrett *et al.*, 2002); as a result one product may be accepted in one country but rejected in another (Forss and Sterky, 2000). In the UK, the designated authority is the Port Health Authority (PHA) or Local Authority (LA). PHA/LA officers will be required to check that the import is authorised by DEFRA and that all details on the Certificate of Inspection match the information held on a database of import authorisations before allowing the product to enter free circulation. The organic products (imports from developing countries) Regulations 2003 (SI 2003/2821) is the UK legislation which gives the authorities enforcing the Commission Regulation power to charge for endorsing the Certificate of Inspection and powers to control the movement of produce (DEFRA, 2004).

Figure (5) is drawn from (Saltmarsh and Wakeman, 2004) and describes in simple terms the structure of the food supply chain. The diagram indicates two main supply chains

that lead to the end consumer. In broad terms, these are import of farms' inputs (seed, feed, and fertilisers), farm produce, and processed foods. However, the key chains involved a great complexity in the marketing channel through which these products pass either directly to the farmers or through a marketing agent who then supplies a processor and/or wholesaler/distributor. In addition, whilst this diagram specifically categorises the processed food chain in marketing imports, given the nature of food manufacturing these can also be supplying wholesalers with processed organic food. The diagram also demonstrates marketing from the point of the wholesalers/distributors, illustrating the two main supply chains into the point of sale to end consumer. These are specifically through a centralised distribution system operated by retailer or through a wholesaler/ distributor managed supply chain to the catering sector.

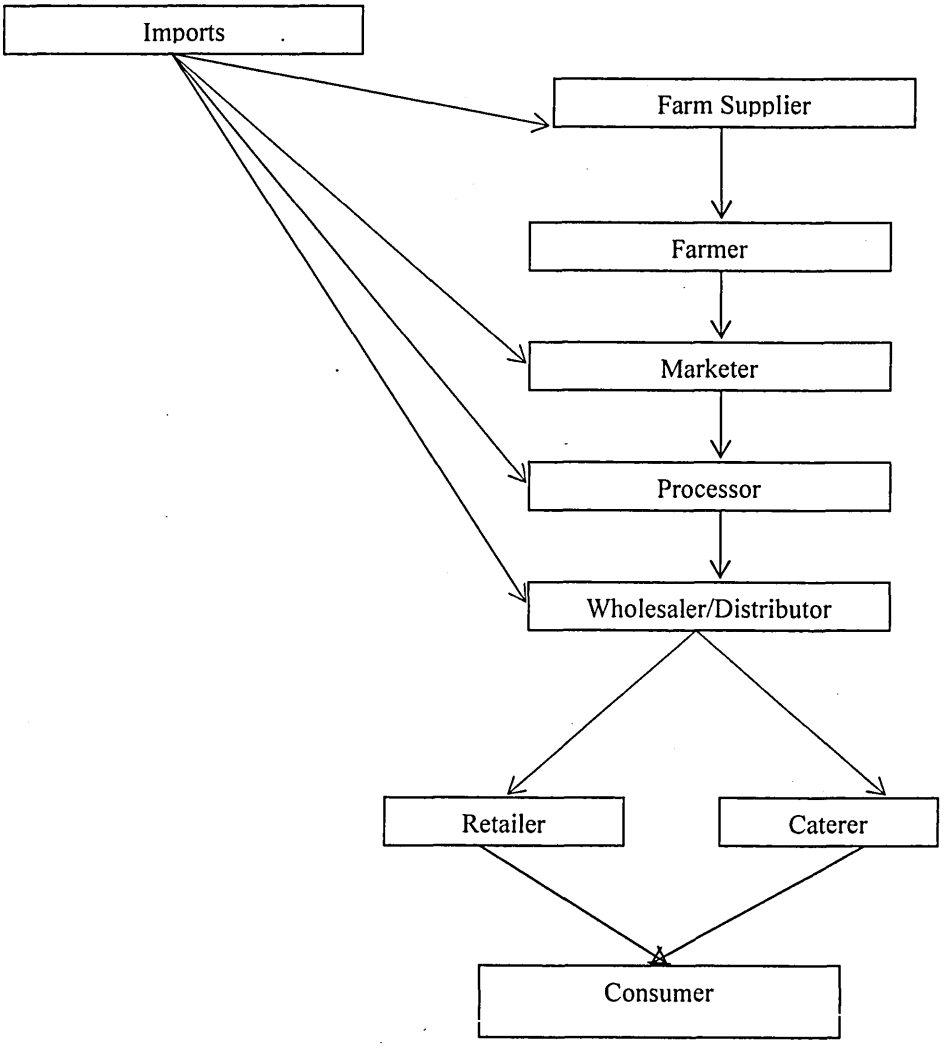


Figure (5). Overseas Organic Supply Chains. Source: East Anglia Food Link (2004)

In terms of the importance of organic production to developing countries, there were several social, economic and employment benefits identified. Crucefix (1998) indicated

that the implementation of organic systems in the developing countries might have benefits for farmers, labours and the national economic of these countries. For farmers, this can mean:

- An increase in farmers' self-reliance for food and inputs;
- Greater autonomy and self-confidence;
- Increased biological and labour diversity, thus spreading risk in the agronomic as well as the financial sense.

For the wider country context, this can mean:

- Less dependence on external inputs and technology;
- Improved foreign exchange balance through import substitution and exports;
- An improved image in the eyes of tourists and investors.

2.5.3.2 Local supply-chains

Localisation of food supply chains means simply that food is consumed as close as possible to the point of origin. However, in practice, this varies from produce to product, and the construction of 'local' is both socially and culturally specific and fluid over time and space (Hinrichs, 2003). Cutting 'food miles' is the principal environmental rationale for localising food supply chains, in other words reducing the energy and pollution associated with transporting food around the world (Pretty *et al.*, 2005). The local distribution scheme includes organic local shops; farm shops; farmers' markets; box schemes and organic producer co-operatives have been developed and promote the organic food market. Research undertaken within farmers' markets (Eastham, 2005) indicated that extent of local and the degree to which production is embedded may help explain the relative values of local food in the market. It is estimated that 30% of organic producers in the UK are involved in some form of local food distribution (Booth, 1996). Organic producers start selling their products directly to the consumers. On a small scale, there is growing vertical integration, as consumers are keen to seek out suppliers at farmers ' markets and farm shops (Mintel, 2000). Farmer markets, vegetable boxes, farm shops and other forms of direct marketing may be considered as alternatives for farmers to get a good price for organic produce. Farmers presently feel that supermarkets cannot provide this. Further evidence of this move towards alternative

systems of food provision is reported by a study finding that 51% of organic growers in the UK were planning to work cooperatively with other farmers, to increase their market share and improve resilience against external economic shocks (ADAS, 2004).

Direct sales were defined as those that pass directly from farmer to consumer, so only included produce that was produced and sold from the same farm (DEFRA, 2004). For consumers, direct marketing initiatives are providing people with locally grown, fresh, healthy and, in many cases, organic food at affordable prices. For producers, direct sales retaining more of the value of their produce, which can help them, survive through the current crisis in UK farming. Also through buying locally grown produce, consumers are giving their support to local producers as well as helping to revitalize rural economies (Trobe, 2001). In addition, direct sales where people can buy produce from local producers and growers provide several social, environmental, health, and economic benefits (Soil Association, 2007). These benefits are:

- Increasing local ownership and participation;
- Local co-operation;
- Reduction in pollution from food transport;
- Understanding and support for distinctive local landscapes;
- Keeping money in the local economy;
- Reducing the costs of intensive agricultural practices such as cleaning the water supply.

Due to the importance of local supply-chains in developing of the organic home market, the alternative market outlets (farmer's markets, organic shops, farm shops and organic co-operatives) are considered to be the fourth key player in the organic farming system and will be investigated in more detail.

2.5.3.2.1 Alternative market outlets

According to the organic farming schemes statistics (DEFRA 2006), the amount of land under organic and in-conversion in Yorkshire and Humberside in 2006 was only 11,319 hectares. This compared with 35,939, 22,094, 15,606, 30,228, and 14,431 hectares for North East, North West, East Midlands, West Midlands, and Eastern, respectively. This clearly indicated that Yorkshire and Humberside is the lowest region in England in

terms of amount of hectares (11,319 ha) managed as organic. This is represent only (1%) of total agricultural area in the county (see Table 1). The alternative market outlets include farmer's market, farm shops, organic shops, organic co-operatives, and box schemes. The continued growth in organic sales through alternative market outlets can be attributed to increased media interest in the concept of local food (food with a regional provenance), increased accessibility to alternative outlets and an increase in the range of produce sold (Soil Association, 2005). Therefore, some consumers increasingly perceive alternative market outlets as offering a real alternative to supermarket shopping. The overall motivations of these outlets are to provide local people with quality, reasonably priced local food, to source as much local produce as possible and to offer a wide range of organic food products including fresh vegetables, fruits and other locally produced food and local media, organic bodies and websites are their main sources of information (Soil Association, 2006b).

The farmers' market is one of the direct sale schemes, which provide consumer with fresh, healthy, locally grown, and often organic foods from sources that they know and trust, thus increasing accountability and building consumer confidence (Soil Association, 1999). In the UK, the producers who sell at farmers' markets must be from the local area, generally from within a 30- to 40-mile radius of the market, or more if the market is situated in a large urban area such as Islington market in London which has a 100-mile radius (Lawrence, 1999). Farmers' markets have real benefits for the local community and economy: 'they nurture local economic development, maintain diversity and quality in products, and provide opportunities for producers and consumers to come together to solidify bonds of local identity and solidarity' (Trobe, 2001). There are also benefits for the farmers and producers who sell their produce at the farmers' markets. These include being able to retain more of the retail price of their produce which may be up to three times more than prices earned via wholesale channels, by passing the middlemen in the sales chain (Planck, 1999; Meikle, 1999). Cheaper produce of at least equal quality to supermarket goods is an additional benefit for consumers shopping at farmers' markets (Bur *et al.*, 1999). Trobe (2001) conducted a study to compare prices for fresh products in the farmers' market and the equivalent supermarket items found similar results. The comparison revealed that a number of the organic vegetables available at the farmers' market were actually cheaper than their equivalent non-organic products being sold in the nearby supermarkets. In addition, a price comparison carried out in the farmers' markets in the south-west found that the

prices of six different types of organic meats were an average of 37% more in the local supermarket than at the farmers' markets and organic vegetables were 33% more expensive (Ross, 2000).

Sales through farm shops and organic shops are another way of direct sale, which provides an opportunity for consumers to buy fresh organic food directly from producers. Direct sales through farm shops are significantly more important routes to market for organic farms and it has a positive impact on local economy (Lobley *et al.*, 2005). According to the Soil Association Market Report (2005), the value of direct sales through farm shop is estimated to be £40.5 million in 2004 with a growth of 11.6%. Quality, freshness, provenance and experience are the key ways to achieve loyalty, with farm shop customers choosing these outlets to get tasty local food that they can trust in a pleasant and usually friendly 'stress free' environment (Soil Association, 2003). Figure (6) illustrates the structure of the alternative market outlet. Box schemes are now one of the fastest growing forms of direct marketing in the UK; that is getting food straight from the farmer to the consumer.

The concept of box scheme was developed by vegetable growers to shortcut the extended food supply-chain in order to sell their fresh produce direct to consumers. They may also supply fruit, dairy produce, meat, and wholefoods. Most schemes operate locally or on a regional basis, but some also deliver nationally. Box schemes usually source produce locally, keeping unnecessary packaging, storage and transportation to a minimum, which ensures it, arrives fresh to customers' home (Soil Association, 2001c). Organic box schemes provide customers with a regular box of mixed organic vegetables and sometimes fruit. The boxes always contain a good mix of produce with the emphasis firmly on the seasonal and local. Box schemes give farmers a dependable outlet for their produce and offer customers an easy way to enjoy fresh, seasonal, often local, produce (Trobe, 2001). Organic food sales through box schemes, farm shops and farmers' markets increased by 33% in the UK in 2004 (Lawrence, 2005). However, as indicated by FARMA (the representative body of farmers' markets), the key challenge for these outlets is therefore to create new systems of provision to bypass the supermarket supply chain, and organise in such a way as to wield sufficient power in the marketplace (FARMA, 2006). Recent research by the National Farmers' Union (2000) showed that, for nearly half of farmers, lack of technical knowledge, processing facilities, access to consumers are the major barriers to developing a local

food production. In addition, the supply of local food and issues of organic certification processes are considered principal concerns (Trobe, 2002).

Direct sales in forms of farmers markets, farm shops, organic shops and organic cooperatives seems to provide several benefits for consumers, environment and economic. Alternative market outlets are mainly motivated by providing local people with quality, reasonably priced local food. Lack of technical knowledge, processing facilities, access to consumers Supply of local food, dominance of supermarkets, and certification processes are major barriers for alternative market outlets.

It appears that local food production is an important issue in promoting organic market. However, information about understanding local food production, cooperation between producers, consumers, outlets and multiple retailers still limited and need to be quantified. Also of course, much local food is not organic, and much organic food is not local. Based on the scoping studies and literature review, Figure (6) shows the potential relationships between drivers, barriers, and information of the fourth key player of the system namely alternative market outlets.

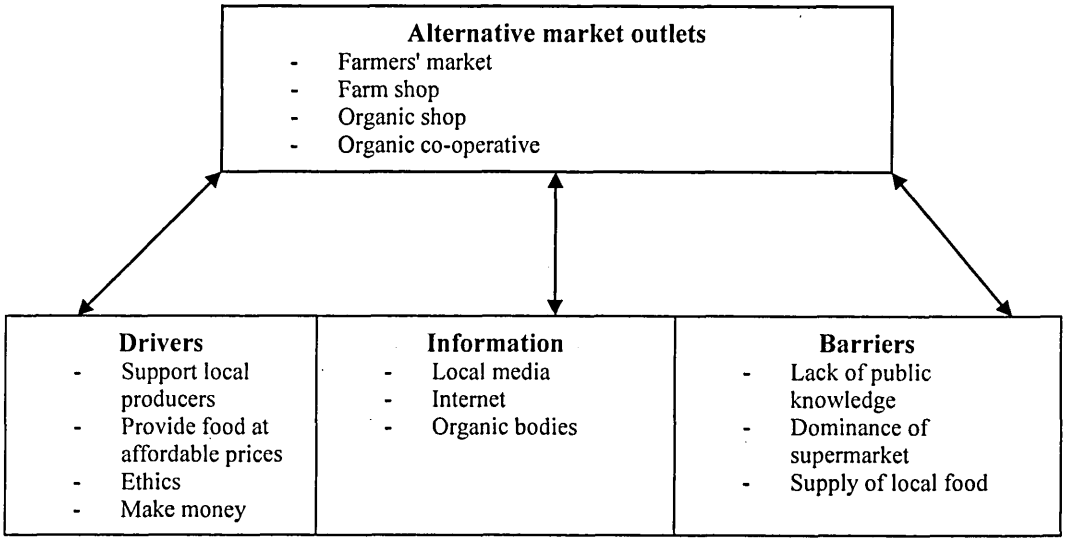


Figure (6). Drivers and barriers for alternative market outlets.

2.6 Interrelationships/cooperation

Generally, the interrelationship amongst the key players of organic farming system is an important issue in promoting organic food production. The Report of the Policy Commission on the Future of Farming and Food in the UK (2002) indicated that the farming and food production is on a path that cannot be sustained in the long term.

Relationships are in many cases confrontational and communications are poor. Disconnection between supplier, processors, and retailers may damage *efficiency.* However, farmers and farmers' groups that work closely with supermarkets and processors, and that are in touch with consumer, can do good business. They can play their part in helping develop successful brands in home markets. The report suggested that the best way for a small farm business to get the benefits of being a large farm business is to collaborate with other. Well-facilitated collaboration can give small farmers access to professional marketing and technical advice. It can also put them in a better negotiating position when dealing with large customers or suppliers.

A study conducted by Norberg-Hodge *et al.* (2000) concluded that developing connections between consumers and growers, boosting ethical and social issues around food supply chains, educating consumers about source of their food and the impacts of different production methods. This will create feedback mechanisms, which are absent when food comes from distant origins, and strengthening local economies and markets against disruptive external forces of globalisation. Furthermore, localised food networks seem to make a significant contribution to rural development, helping to mitigate the crisis of conventional intensive agriculture, build up the local economy by increasing the circulation of money locally (Renting *et al.*, 2003; Ward and Lewis, 2002). Direct sales through local distribution channels where consumers buy organic product directly from producers build trust relationships and confidence (Soil Association, 1999). In addition, Eostre (a producer cooperative based in Norfolk, East Anglia) believes that direct open relationships between producers and consumers build bridges between communities in towns, rural areas and other countries, creating a glopal network of communities, not a globalised food system of isolated individuals (Eostre Organic, 2004). Similarly, the interrelationship between organic food consumption and urbanization, consumers in larger towns are more likely to buy organic food, and that the correlation between urbanization and consumption of organic food is positive (Infood, 1997).

Pedersen (2003) highlighted several basic demands must be met in the market in order to enable consumers to decide about the future of organic food production. These basic demands are:

1) Price transparency in the production chain;

2) An agricultural subsidy scheme that does not stimulate quantity over quality;

3) Internalisation of external costs, which at present non-sustainable status of agricultural practice will highlight the differences between conventional and organic products;

4) Awareness rising among consumers through information campaigns, education, *etc*...

5) Access to detailed, truthful and attractive market information that will enable consumers to make well-informed choices and better competition rules for the retail sector.

These basic demands issues may be considered key factors in terms of the cooperation or interrelationship between consumers, producers, policy makers, and retailers.

It seems there is a disconnection between the key stakeholders of organic farming system (Policy Commission, 2002). This is may be one of the main reasons for the current situation of UK agricultural production generally and more specifically for organic food production. It is argued that collaboration or cooperation amongst producers, consumers, retailers, and alternative market outlets is an important issue in promoting organic food production. However, there is a lack in information in the literature about the impacts of such relationships on organic farming growth and development. The current research will address this issue and try to test how such relationships affect the important aspects of organic farming development.

As previously discussed each stakeholder has their own motivations, barriers, and information. It seems there are relationships (cooperation) between producers and consumers, and producers and alternative markets. Similarly, there was a cooperative relationship between consumers and alternative market outlets. The relationships between producers and supermarkets, and alternative market outlets and supermarkets seem disconnected. However, there was a relationship between consumers and supermarkets. Moreover, there was a lack in information and knowledge for both consumers and producers. Consumers and producers seems to share similar motivations however, there barriers were different. The motivations for supermarkets and alternative market outlets were differ but they seem to share similar concerns.

With reference to the literature, motivations, barriers, and source of information for stakeholders were identified and presented in a simple model (Figure 7). In this model,

the interrelationships, similarities and differences in motivations and barriers amongst the stakeholders are assessed and illustrated (arrows). The strengths of interrelationships subjectively categorised (cooperative/connected/disconnected) are indicated.

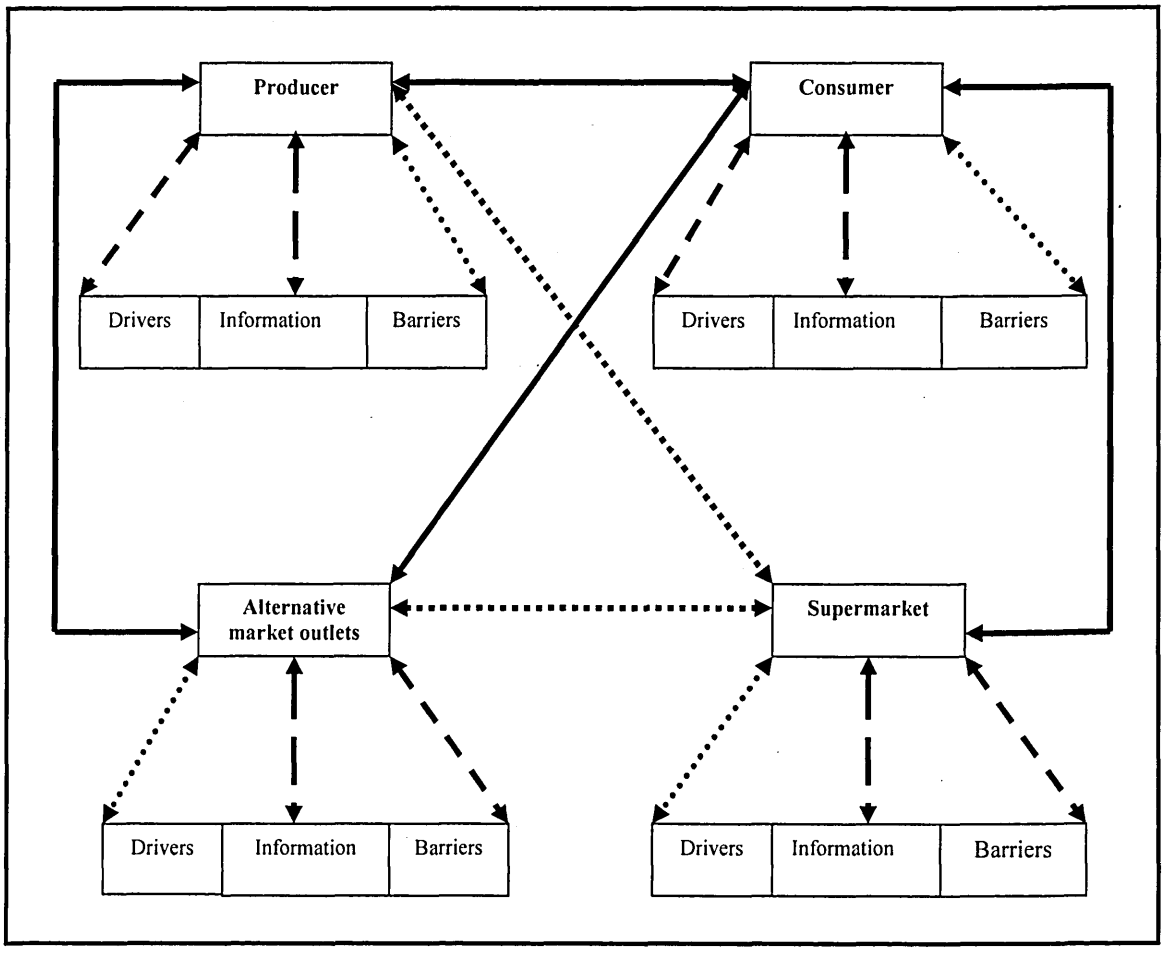


Figure (7). A subjective assessment based on the literature review of interrelationships amongst key players of organic farming systems

Cooperative relationship
Disconnected relationship
Similar drivers or barrier
Different drivers or barriers
Lack of information

2.7 Summary

Research to date regarding organic food production has focused primarily on motivations towards conversion, consumption, and the benefits of organic farming systems. It has considered impacts on public health and the environment compared with conventional farming systems.

Organic producers are mainly motivated by environmental, health, ethical and financial issues (McEachern and Willock, 2004). Poor access to information and advice, concerns about technical issues such as weed and pest control, lack of confidence in the rate of development of markets, the continuance of premiums, and the commitment of government to support the sector are the major barriers, facing organic farmers in the UK. Farming press, accreditation organisations and state bodies, other farmers, friends, books and publications seem the main sources for organic farmers who are interested in converting from conventional to organic. The motivations of organic producers not only need to be quantifying but these motivations along with the motivations of other key stakeholders of the system need to be interrogated and interrelate to each other and its impact on development of organic farming need to be effectively investigated.

Health and environmental concerns are the major motivations organic consumers. Price and availability of products are their major concerns. NGO and the media are their major sources of information. However, consumers' knowledge about organic food is still limited. Additionally, increased knowledge of consumer attitudes and valuations in the marketplace, and particularly their relation to the basic principles of organic farming is still needed. If there is cooperation between consumers and producers, there is potential to build broad alliances or groups that can push ahead for greater production and consumption of organic food.

It is undoubted, that supermarkets play a significant role in the UK market and become the main outlet for organic food. Supermarkets may have their own strategies, aims and motivations for selling and distribute organic products, which may significantly influence the market as well as the organic sector in the UK. Moreover, the information about supporting and encouraging organic producers came mainly from one source (the supermarkets) which weakens analysis since this has potential bias. Since independently generated information in the literature seems to be limited, these issues need to be investigated more effectively. Increased demand in the UK is not being met and that is in part because of inadequate marketing structures and the slow conversion of some sectors such as arable and horticulture. Significant volumes of organic food are still being imported from within EU or the developing countries to meet consumers' demand. There are number of ways in which organic food can be marked and distributed. This is through either local supply-chain or overseas supply-chain.

Direct sales through box schemes, farm shops organic shops and farmers' markets, have real benefits for consumers, producers as well as for local community and may significantly affects the organic food market in the UK. However, information about local food production, cooperation between producers, consumers, outlets and multiple retailers still limited and needs to be considered.

The literature indicated that there is disconnection between the key stakeholders of the organic farming system. This is may be one of the main reasons for the current situation of agricultural production in general and more specifically organic food production. It is also argued that collaboration or cooperation amongst producers, consumers, retailers, and alternative market outlets is an important issue in promoting organic food production. However, there is a lack in information in the literature about such interrelationships and its impacts on organic farming growth and development.

As indicated in Chapter One, this research project will focus on the interrelationships/interaction between range of motivations, barriers and sources of information of producers, consumers, retailers and small organic processors towards organic. A substantial literature review has identified the lack of a robust academic research base in terms of issues and tensions in the relationships between product, producers, and consumer. More emphasis will be given to the impact of such interrelationships on organic farming growth and development in the UK. These issues were not covered effectively in the literature and there is a need for further investigation to highlight the roles of these channels in the organic food market. The research approach is by use of an appropriate 'conceptual framework' and the application of multi-methods to facilitate and lead the study. The key research questions in the present work will help address some of the identified gaps.

2.8 Research questions

In order to achieve the aims and objectives of this project, the following key questions are addressed:

1. What are farmer's motivations in moving toward organic production?
2. What drives consumers to organic foods?
3. What are retailer's aims, and do they meet the organic /producers/consumer's needs and expectations?

4. How do the interrelationships between farmers, consumers, and retailers affect the growth and development of organic farming systems?
5. What are the key drivers for the supply and demand of the UK produced organic food within the home market?
6. Who influences and drives the supply chains of organic food in the UK? Is it the consumers, producers, or retailers?
7. Do potential barriers imposed by retailers lead to supply chain diversification and alternative synergies between producers and consumers?
8. How does the local supply chain affect organic food market in the UK?

CHAPTER THREE

3. DEVELOPMENT OF HYPOTHESES AND RESEARCH MODEL

3.1 Hypotheses

The word hypothesis is generally used in a more restricted sense in research to refer to conjectures that can be used to explain observations. It is a hunch, an educated guess, which is advanced for being, tested (Burns, 2000a). It is often takes the form of relationships between two or more entities. These entities are usually referred to as concepts that is, categories in which are stored our ideas and observations about common elements in the world (Bryman and Cramer, 1990). The purpose of hypotheses is to offer a clear framework and guide when collecting, analysing, and interpreting the data. Sarantakos (2005) indicated that hypotheses are expected to: guide research, by offering directions to its structure and operation, offer a provisional answer to the research question and to facilitate statistical analysis of variables in the context of hypothesis testing. In many cases, hypotheses serve as a testing tool for the relationships between variables. In this sense, a hypothesis contains a possible solution to the research problem; its validity will be tested by the evidence gathered by the study. At the time of construction, hypotheses cannot be described as true or false; they can only be relevant or irrelevant to the research topic (Sarantakos, 2005). The proposed model will also guide the research; help in data gathering and formulation and in testing the hypotheses.

3.1.1 Formulating hypotheses

The hypotheses guiding this research are related to its objectives and research questions. They are divided into main and sub-hypotheses.

3.1.1.1 The main hypothesis

Based on the reviewed literature, it is seem that the organic farming system is made up of many players or stakeholders. These players are interrelated and each affected by the others. These include the following:

- Organic producers who engage in agricultural practices, to produce organic foods;
- Consumers whose interest in buying organic foods may, be due to various drivers and motivations;
- Supermarkets have responded to the huge demand and try hard to offer what their customers need;
- Alternative market outlets are emerging to provide people with locally grown, fresh and supposedly healthy products at affordable prices.

Each of these players has their own strategies, and is influenced by potential drivers, and barriers.

In theory, the building of positive interrelationships between these stakeholders may significantly affect the growth and development of organic farming systems in the UK. Both producers and consumers can generate links between each other through for example direct sales (farmers' markets, farm shops and organic shops) where consumers have a chance of buying fresh and healthy organic products at reasonable prices (Planck, 1999; Meikle, 1999; Soil Association 1999; Trobe, 2001). Such interrelationships between producers and consumers make consumers more confident about the product because they know where and how it was produced. It is also an important kind of support to local producers since consumers are more likely to buy if the product from the UK (Hermansen, 2003; Soil Association, 2003). It is suggested that supermarkets need to encourage and support organic producers by paying them fair prices, which reflects the true cost of production. This kinds of support which currently does not exist (Soil Association, 2001a) would give producers confidence in the rate of market development (Midmore *et al.*, 2001). Additionally, organic producers find it difficult to achieve the supermarkets' grades and specifications (Steele, 1996). According to literature, the supply of organic food in the UK is still less than the potential demand and supermarkets try to meet increased demand by overseas imports (Mintel, 2000). Organic producers have failed to meet supermarkets' grades and specifications. This make imports an essential strategy for supermarkets to meet the increased demand. However, supermarkets need to provide support to organic produce for example, by minimise their specifications in order to provide them good opportunities to access the market. Additionally, the large amounts of imports may negatively affect the environment as well as on the local market. There are demands for

this to be minimised and the priority given to British suppliers (DEFRA, 2004). A key strategy may need to be reconsidered to give more support to local producers and encourage conventional farmers to convert. Alternative market outlets can provide producers with chance to sell their products at good price, which at present it is suggested supermarkets cannot provide (DEFRA, 2004). High price is a key barrier for consumers to buy organic foods and this has been considered as the main obstacles for further growth of the market (Makatouni, 1999; European Action Plan 2004). Consumers need to be more educated about the value of organic foods, the reasons behind high prices and the impact of organic food production on health and environment. There is a significant lack of this kind of information and many consumers do not buy organic food because of lack of such information (Harper and Henson 2001; M.O.R.I 1999). Supermarkets can build an interrelationship with their consumers to provide them with such information and encourage them to buy organic products because educate consumers has the potential to win the support of more new consumers (T.N.S, 2003). In addition, building relationship between consumers and the alternative market outlets will also give consumers another alternative shopping and will have a positive impact on local economy (Lobley *et al.*, 2005). The contribution of both supermarkets and the alternative market outlets in the home market is very important. For example, in 2005 retail sales of organic products in the UK has increased by an annual increase of 30% and retail sales through alternative market outlets increased by 11% (Soil Association, 2006). Cooperation amongst these two players will have significant effect on the development of organic market.

Interrelationships or cooperation between the key players of organic farming systems may significantly affect the organic food market in the UK and consequently the growth and development of organic farming systems as whole.

Organic farming has developed at different speeds at different times because of a combination of factors including consumer demand, policy intervention and the influence of the major multiple retailers (Lobley *et al.*, 2005). It is hypothesised that the development of organic farming sector is strongly affected by the new consumer desires and trends in consumption and by the institutional settings in which the different actors of the organic movements operate (Miele, 1999). Additionally, Dabbert *et al* (2002) argued that food scares and subsequent reaction of policy makers and consumers have had an even stronger effect on organic farming development. Organic farming

development can be defined as the increase in organic food consumption, local products and fewer imports, new producers convert their farms to organic, more land in conversion, expand of organic market and more understanding of the philosophy and benefits of organic food products. In the UK organic farming development means, sourcing organic produce from a very low input, reduction of food miles, eating seasonal, low CO^2 emission, minimum distance, no packing involved, social benefits and keep the money local (Soil Association, pers. comm.). In conclusion, it could be said that:

"Growth and development of organic farming depends on the interrelationships between its key players"

3.1.1.2 The sub-hypotheses

The first set of sub-hypotheses refers to the attempt to assess 1) the motivations and barriers of farmers towards organic production, 2) of consumer's drivers to buy organic food, and 3) of retailer's motivations, aims, and strategies toward selling and distribute organic products.

It is suggested that:

(1) Farmer's motivations toward organic production appear to be higher profits, environmental protection, and health benefits. Poor access to information and advice, concerns about technical issues such as weed and pest control, lack of confidence in the rate of development of markets are considered major barriers that stop farmers from progressing the idea.

(2) Quality of food, health concerns, and environmental concerns appear to be the main drivers for consumers to buy organic food and the high price is the major constraints on consumption.

(3) The main aim of the major food supermarkets in the UK is to provide support and encouragement to UK organic producers.

The second set of sub-hypotheses will test supply and demand issues within the home market.

It is suggested that:

(1) Organic food supply in the UK still cannot meet demand. It is appears that demand is grow faster than supply and consumers are the key driven force for demand.
(2) Local distribution schemes have been developed and promote organic food market. The emergence of these supply chains may be considered as alternatives for some producers to get access to organic market.
(3) Direct sales where people can buy produce from alternative market outlets reduce the distance that food travels between producers and consumers, which in turn decreases global environmental pollution.

3.2 Developing of research model

The research conceptual framework and models are derived from the reviewed literature and help provide a critical structure for the research. The model for this project was developed based on the interrelationships among selected key stakeholders (see Figure 7). This helps how these conceptualise interrelationships affect organic farming growth and development. Figure (8) illustrates how these factors interact with each other and how this may affect several aspects of organic farming development. The model will also help in testing sets of hypotheses related to the key players of the system and the interrelationships.

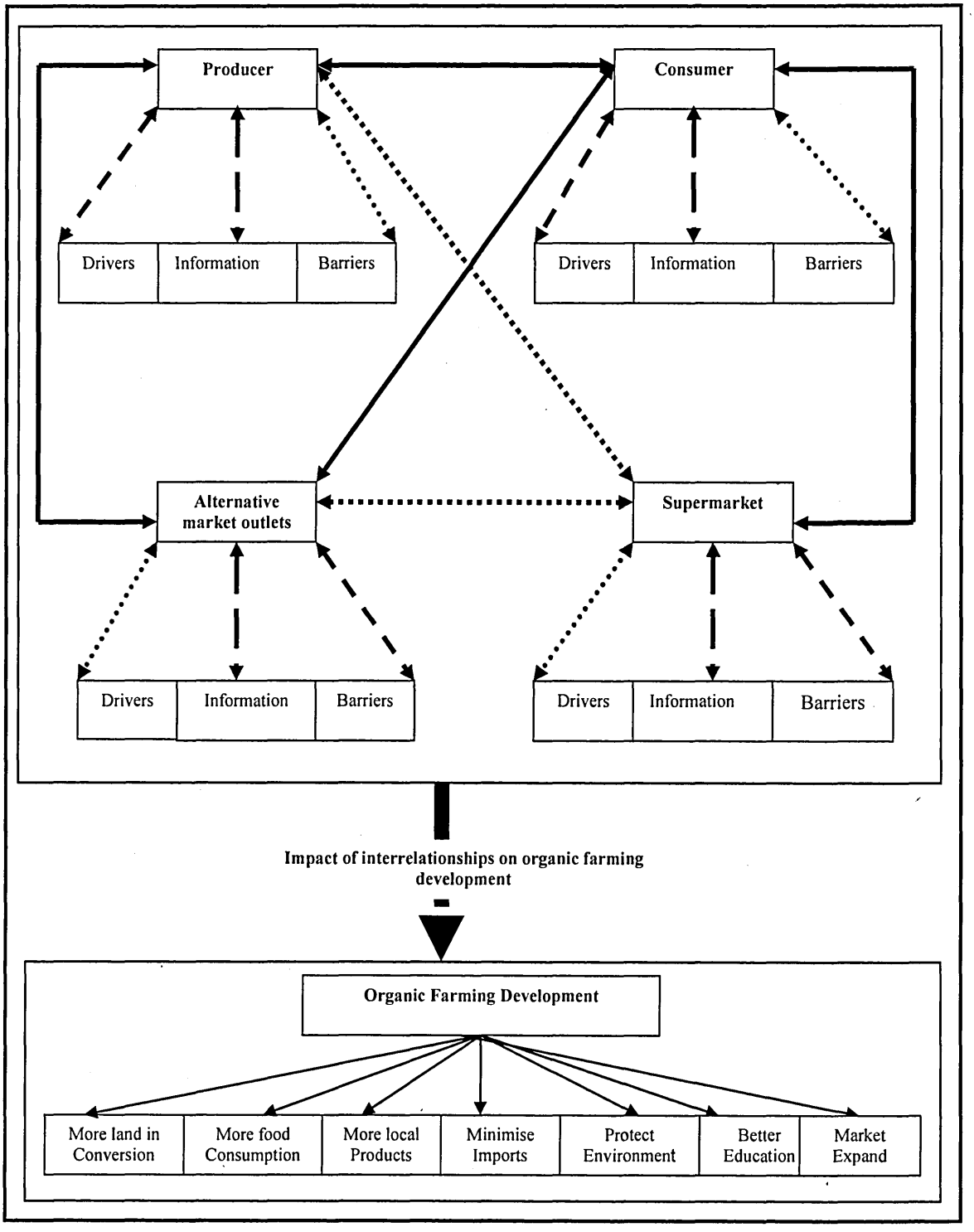


Figure (8). A subjective assessment based on the literature review of the interrelationships among the main variables of the organic farming system and its impact on the organic farming development.

Cooperative relationship
Disconnected relationship
Similar drivers or barriers
Different drivers or barriers
Lack of information
Aspects of organic farming development

CHAPTER FOUR

4. RESEARCH METHODOLOGY AND DESIGN

4.1. Part One: Philosophical perspectives

4.1.1. Epistemological and ontological perspectives

Engaging with theoretical perspectives before undertaking the research (deductive approach) or after it (inductive approach) are important steps in the research process. Examining the range of theoretical perspectives available, will provide guidance as to which ones are most appropriate to the research project (Gray, 2005). Crotty (1998) indicated that choosing the data gathering method is influenced by the research methodology. This methodology is influenced by the theoretical perspectives adopted by the researcher and by the researcher's epistemological stance. As illustrated in Figure (9), an interrelationship exists between theoretical stance adopted by the researcher, the methodology and methods used, and the researcher's view of the epistemology.

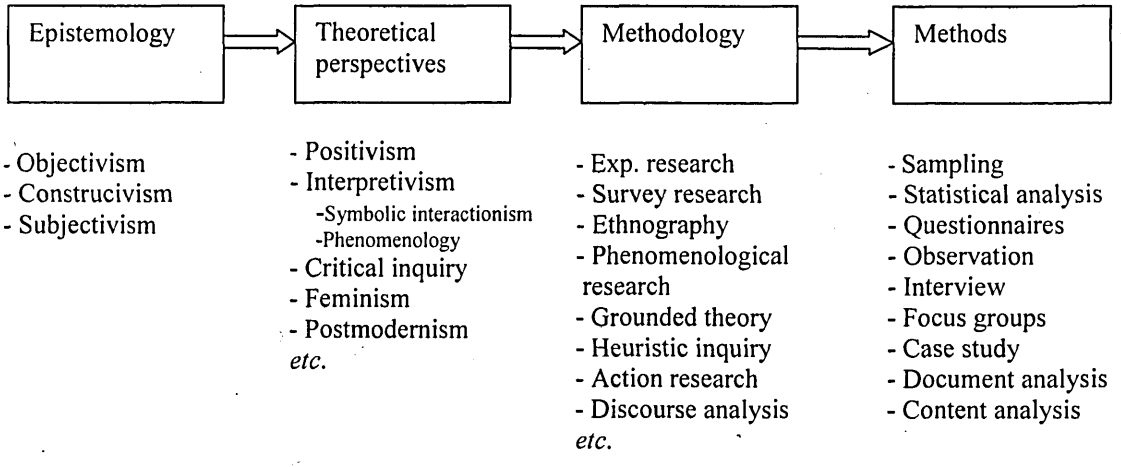


Figure (9) Relationship between epistemology, theoretical perspectives, and methodology and research methods (adapted from Crotty, 1998)

Gray (2005) indicated that ontology is the study of being, that is the nature of existence. While ontology embodies understanding 'what is', epistemology tries to understand 'what it means to know'. Epistemology provides a philosophical background for deciding what kinds of knowledge are legitimate and adequate. As Gray (2005) concluded, three positions of epistemology have emerged (Figure 9):

1) Objectivist epistemology, which argues, that reality exists independently of consciousness. Meaning, there is an objective reality so the research is about

discovering this objective truth. The theoretical perspective closely linked to objectivism is positivism.

2) In contras, to objectivist constructivism epistemology which rejects the view of human knowledge. Meaning is constructed not discovered, so subjects construct their own meaning indifferent ways, even in relation to the same phenomenon. A theoretical perspective linked to constructivism is interpretivism.

3) In contrast to constructivism, subjectivism epistemology argues that meaning does not emerge from the interplay between the subject and the outside world, but it imposed on the object by the subject. Subjects do construct meaning, but do so from within collective unconsciousness, from dreams, religious beliefs, *etc.* Postmodernism is the theoretical perspective linked to subjectivism.

4.1.2. Theoretical perspectives

Saunders *et al.* (2003) indicated that there are three main philosophical approaches to social research: Positivism, Interpretivism, and Realism. However, Gray (2005) concluded that Positivism and Interpretivism are, or have been (arguably) among the most influential.

4.1.2.1. Positivism

Positivism argues that reality consists of what is available to the senses that is what can be seen, smelt, touched *etc.* Inquiry must be based upon scientific observation and therefore on empirical inquiry. It also argues that ideas only deserve their incorporation into knowledge if they can be put to the test of empirical experience. Natural sciences are seen by positivists as progressing through the patient accumulation of facts about the world, in order to produce generalization known as scientific laws. Hence, both the natural and social worlds operate within a strict set of laws, which science discovered through empirical inquiry (Gray 2005; Bryman 1988).

4.1.2.2 Interpretivism

Interpretivism is a major anti-positivist stance, which looks for 'culturally derived and historically situated interpretations of the social life-world' (Crotty, 1998). In addition, Bryman (1996) indicated that the world is interpreted through the classification schemas of the mind. Interpretivism argues that natural reality and social reality are different and therefore require different kinds of method. While natural sciences are looking for consistencies in the data in order to deduce laws (nomothetic), the social sciences often deal with the actions of individual (ideographic). "Our interest in the social world tends to focus on exactly those aspects that are unique, individual, and qualitative, whereas our interest in the natural world focuses on more abstract phenomena, that is, those exhibiting quantifiable, empirical regularities". (Crotty, 1998).

Phenomenology is an example of interpretivism approach, which holds that any attempt to understand social reality has to be grounded in people's experiences of that social reality. The core argument of phenomenology is that; "we must lay aside our prevailing understanding of phenomena and revisit our immediate experience of them in order that new meaning may emerge" (Tesch, 1994). Hence, phenomenology becomes an exploration, via personal experience, of prevailing cultural understanding. Value is ascribed not only to the interpretations of researchers, but also of the subjects of the research themselves (Gray, 2005).

4.1.3 Research methodology

As indicated above that epistemology and theoretical perspectives are key issues in research design which affect research methodology and methods of data collection (Figure 9). According to that, choice of research methodology is determined by several factors. For example, it may be that the researcher believes that there is some sort of truth need to be discovered or whether the purpose of the research is to explore people's multiple perspectives in natural, field settings. So the outcome is influenced by whether the research is inclined towards a positivist, interpretivist or other perspectives. As the positivist and interpretivism were considered as the main approach for this research project, analytical survey and phenomenological research will be chosen as appropriate methodologies in this research.

4.1.3.1 Analytical survey

Analytical survey attempts to test a theory in the field through exploring the association between variables. It is place an emphasis on deductive approach identify population of study, selection samples, control of variables, generation of both quantitative data qualitative data and ability of results to be generalised (Gray, 2005).

4.1.3.2 Phenomenological research

Phenomenology is a perspective that uses relatively unstructured methods of data collection. It is relies on seeking the opinions and subjective accounts and interpretations of participants, quantitative analysis of data, and is not so much concerned with generalizations to large populations (Tesch, 1994). However, the question that may arise is that, why do we need knowledge of research philosophy? Easteby-Smith *et al* (1991) point out; having knowledge of research philosophy can help to clarify issues of research design. This means more than just the design of research tools but means the over-arching structure of the research including the kind of evidence that is being gathered, from where, and how it is going to be interpreted. Knowledge of research philosophy also helps in identify which designs will work to (reach the research objectives) and which will not.

4.1.4 Methods of data collection

Choosing methods of data collection is often the last step in planning research design. That is simply because it is impossible to decide which method is appropriate until we have a clear perspective on philosophy, approach, and methodology. As the philosophy, approach and methodologies of this research were explained above the following methods will be used for collecting the research data.

4.1.4.1 Questionnaires survey

Questionnaires rely on written information supplied directly by people in response to questions asked. The kinds of data collected from questionnaires are distinct from that obtained from interviews observation or documents. The information from questionnaires tends to fall into two broad categories: 'facts' and 'opinions.' Factual

information does not require much in the way of judgement or personal attitudes on the part of respondents. It just requires respondents to indicate accurately and honestly information. The other category is 'opinions', attitudes, views, beliefs and preferences where respondents need to reveal information for example about feeling, in a way that calls for a judgement about things rather than the mere reporting of facts (Denscombe, 1998). Questionnaire survey is appropriate when used with large numbers of respondents in many locations e.g. postal questionnaires. In addition, it is suitable if the required information tends to be straightforward information (Denscombe, 1998). There are different types of questionnaires, which differ according to how they are administrated. The first type of questionnaire is the self-administrated questionnaire, which usually either posted to respondents who complete them and return them back by post (postal questionnaires) or delivered by hand to each respondent and collected later. The second type of questionnaire is the interviewer-administrated questionnaires where the researcher contact respondents and administrate questionnaires using the telephone (telephone questionnaires) (Saunders *et al.*, 2003). There are both advantages and disadvantages for questionnaires method as indicated by (Denscombe, 1998) and discussed below.

4.1.4.2 Advantages of questionnaire surveys

There are four key advantages of this approach:

1) Questionnaires can supply a considerable amount of research data for relatively low cost;

2) The postal questionnaire is easier to arrange than for example, personal interviews;

3) To some extent, all respondents are presented with exactly the same questions with no scope for variation that might occur with face-to-face contact. The data collected are very unlikely to be contaminated through variations in the wording of the questions or the manner in which the question is asked;

4) Questionnaires encourage pre-coded answers and allow the speedy collation and analysis of data.

4.1.4.3 Disadvantages of questionnaire surveys

There are three main disadvantages identified:

1) Pre-coded questions can be frustrating for respondents and thus deter them from answering. Therefore, ticking box routine might encourage people to respond but this routine might be experienced as negative and put people off cooperating with the research;

2) Pre-coded questions can bias the findings towards the researcher's rather than the respondent's way of seeing things. There is always the danger that the options open to respondents when answering the questions will channel responses away from the respondent's perception of matters to fit in with a line of thinking established by the researcher;

3) Postal questionnaires offer little opportunity to check the truthfulness of the answers given by respondents.

4.1.4.4 Statistical analysis of quantitative data

Quantitative data analysis is a diverse and complex process. In the first instance, it entails a primary analysis dealing with raw data and secondary analysis involving previously analysed data or a meta-analysis. Sarantakos (2005) outlined the key steps of quantitative data analysis. The following is a simple summary of the steps identified. Data analysis begins where data collection ends; and this when the instruments of data collection that contain the data (e.g. questionnaires) are completed. The process starts with preparing the data for computer entry, followed by entering the data in the computer and then by data processing and analysis.

4.1.4.4.1 Data preparation

Data preparation involves checking, editing and coding. All information gathered should be checked and edited so, that it is clear, legible, relevant, and appropriate. Coding is the process of converting verbal responses to numerical codes. For instance, 'Male' may be given a code of '1' and 'Female' a code of '2'. Missing answers to questions or inaccurate responses must also be recorded.

4.1.4.4.2 Data entry and presentation

The checked and coded answers must entered in the computer, equipped with the statistical package SPSS. This process requires identifying variables in a way that the

computer is accept it. The variables should correspond to each question and the corresponding response options. The two most common ways of presenting the findings are tables and graphs. Tables can be univariate tables, which contain one variable, bivariate table, which contain two variables, or multivariate tables containing more than two variables. Graphs are figures that offer a visual presentation of the results: circles, bars, columns, maps, pictures or other figures to display relevant information.

4.1.4.4.3 Statistical processing

Statistical processing includes techniques that allow a detailed analysis of the data. One such technique will offer general descriptions of the data. This is known as descriptive analysis. Another technique describes relationships between variables looking for correlations, and is known as relational analysis. The third form of statistical processing is significance testing, which informs the researcher about the extent to which findings are robust and reflect the tested criteria within the sampled population. This is important in terms of whether the study allows generalization of the findings.

4.1.4.4.3.1 Descriptive analysis

With descriptive data, the process of transforming a mass of raw information into tables and charts is a vital part of making sense of the information. Descriptive analysis helps assess how a sample is distributed across different categories for each variable. There are three types of 'average' used to describe data, which are collectively known as measure of central tendency; these are the mean (average), the median (the mid point), and the mode (the most common). Of these measures, the mean is the most commonly used measure of central tendency because it is a stable measure and not easily affected by shifts of a few data. Standard deviation is also used to measure how far the scores are spread around the mean. In addition to the mean, median, mode, and standard deviation, simple frequency distributions summarize and describe data. The individual scores in the distribution are tabulated and absolute numbers and /or percentages may be used. This allows frequency distributions to be seen more easily.

4.1.4.4.3.2 Relational analysis

Correlation is a method that examines the relationship between two variables. It examines the presence or absence of a correlation, the direction of correlation, whether an existing correlation is positive or negative and the strength of correlation, whether an existing correlation is strong or weak. The presence, direction, and strength of correlation are demonstrated by the coefficient of correlation. The coefficient of correlation is ranges from -1 to +1. A zero correlation means that there is no correlation between variables. Whether the relationship is positive or negative indicates the direction of correlation. Positive correlation means that variables changes in the same direction and negative means that variables move in opposite directions. The Pearson correlation coefficient, r is the most common measure of association of variables scaled on an interval level. This is a symmetric test dealing with pairs of scores and with magnitudes of observations; testing whether there is a linear correlation between the variables and if so, whether the correlation is positive, negative, strong, or weak.

4.1.4.4.3.3 Significance testing

Significance testing informs the extent to which the findings of the study reflect or are consistent with what happens in the target population. There are several types of test of significance, and that is depends on three major factors: the distribution scale level (nominal, ordinal, or interval), number, and type of samples. If the distributions are scaled on a nominal or ordinal level, Chi-square (X^2) tests are the most popular and for many situations the most appropriate tests. They provide information about whether the collected data are close to the value considered typical and generally expected, and whether two variables are related to each other. If the distributions are scaled on an ordinal/ratio level, parametric tests of significance are the most common. These tests are t-test and analysis of variance (ANOVA).

4.1.4.2 Documentary method

The literature review is generally the starting point for most research investigations. Literature reviews establish the existing state of knowledge in the area of proposed research and, drawing on this, help set out the research questions. These will help to increase the understanding of the topic. Apart from the literature review, documentary

sources can be used for research in other ways. Rather than acting as an introduction to the research, they can take on a central role for the investigation. In this sense, documents can be treated as a source of data in their own right - in effect an alternative to questionnaires, interviews, or observation (Denscombe, 1998). From the researcher's point of view, documentary research has two facets: one an essential part of any investigation and the other a specific method of investigation. The latter offers itself as an alternative to questionnaires, interviews, or observation as a means for collecting data. Books and journals, web site pages and internet, newspapers and magazines, records, letters and memos and government publications and official statistics are the main source of documentary data (Denscombe, 1998).

4.1.4.2.1 Advantages of documentary method

There are advantages to this approach.

1) Access to the sources of information is relatively easy and inexpensive;

2) It provides a cost-effective method of getting data;

3) It provides a source of data that are permanent, and available in a form that can be checked or validated by others. The data are often open to public scrutiny.

4.1.4.2.2 Disadvantages of documentary method

There are disadvantages too.

1) There is a need to evaluate the authority of the source and procedures used to produce the original data in order to gauge the credibility of the documents;

2) Using documents as a source of data generally relies on something which has been produced for other purposes and not for the specific aims of the research;

3) Documents can owe more to the interpretations of those who produce them than to an objective picture of reality (Denscombe, 1998).

4.1.4.3 Interviews

Qualitative interview methods refer to research procedures, which produce descriptive data: people's own written or spoken words and observable behaviour. It is defined as "any type of research that produces findings not arrived at by statistical procedures or other means of quantification." (Strauss and Corbin, 1990). They allow us to know

people personally and to see them as they are developing their own definitions of the world (Bogdan and Biklen, 1982). Interviews as main instruments in collecting qualitative data are appropriate when the researcher feels that the research is best served by getting material that provides more of an in-depth insight into the topic. This draws on information provided by fewer informants. The data of qualitative inquiry is most often people's words and actions, and thus requires methods to capture language and behaviour. The most useful ways of gathering these forms of data are participant observation, in-depth interviews, group interviews, and collection of relevant documents (Maykut and Morehouse, 1994). Structured, unstructured, and semi-structured interviews are the major tools in the qualitative researcher's pack (Burns, 2000b).

4.1.4.3.1 Structured interview

Structured interviews involve tight control over the format of the questions and answers. It is like a questionnaire but is administrated face-to-face with the respondent. The respondents are each faced with identical questions. In structured interviews, the respondent is invited to offer limited-option responses to the questions addressed (Denscombe, 1998b). Tight control over the wording of the questions, the order of the questions, and the range of answers have the advantages of 'standardization.' The structured interview, in this respect, lends itself to the collection of both quantitative and qualitative data. This kind of tools is often associated with social survey where large volumes of data from a wide range of respondents need to be collected.

4.1.4.3.2 Unstructured interview

Unstructured interviews go further in the extent to which emphasis is placed on the interviewee's thoughts. This technique of interview focus on introducing a theme or topic and then letting the interviewee develop his or her ideas about the topic (Denscombe, 1998).

4.1.4.3.3 Semi-structured interview

With semi-structured interviews, flexibility in terms of the order in which the topics are considered is an important issue. More significantly it allows the interviewee to develop

ideas and speak more widely on the research topic. Semi-structured and unstructured interviews allow interviewees to use their own words and develop their own thoughts. In other words, it allow interviewees to 'speak their minds' to discover things about complex issues. Both semi-structured and unstructured interviews lend themselves to in-depth investigations, especially those that explore personal accounts of experiences and feeling (Denscombe, 1998). One-to-one interview is the most common form of semi-structured or unstructured interview, which involves a meeting between one researcher and one informant. This kind of technique is relatively easy to control and allows researchers to locate specific ideas to specific people.

4.1.4.3.4 Telephone interviews

Telephone interviews have become the predominant form of survey data collection because of the high costs of face-to-face interviews and the wide coverage of telephones throughout most of English households. Telephone interviews offer many advantages over traditional interview techniques; it is less expensive than face to face interviews, since travel costs are eliminated (Maxim, 1999). Telephone interviews can be used to follow up peoples' responses in more depth and may provide more clarification about key topics in the study.

4.1.4.3.5 Advantages of interviews

The approach has advantages.

1) Interviews can produce data, which deal with topics in depth and in detail;
2) Interviews offer valuable insights based on the depth of the information gathered;
3) It is relatively easy to contact, it is build on conversation skills;
4) Interviews are a good method for producing data based on informants' priorities, opinions and ideas;
5) Interviews are probably the most flexible method for data collection;
6) Gathered data by interviews can be checked for accuracy and relevance;
7) Interviews are generally pre-arranged and scheduled for a convenient time and location; ensuring a relatively high response rate.

4.1.4.3.6 Disadvantages of interviews

There are disadvantages.

1) Data analysis can be difficult and time-consuming;

2) Consistency and objectivity are hard to achieve. Data collected are to an extent unique owing to the specific context and the specific individuals involved. This may has an adverse effect on reliability;

3) Collected data by interviews are based on what people say rather than what they do. The two may not tally. In particular, interviewee statements can be affected by the identity of the researcher;

4) The tape-recorder or video-recorder can inhibit the informant;

5) Interview can be an invasion of privacy for the informant;

6) The costs of interviewer's time, of travel and of transportation can be relatively high especially if the informants are geographically widespread.

4.1.4.3.7 Interview data analysis

Marshall and Rossman (2006) outlined seven phases of qualitative data analysis. The following is a simple summary of the identified approaches. Typical analytic procedures of qualitative data fall into seven phases:

1) Organizing the data: In this step the gathered data must be listed and 'cleaned up' of what seem overwhelming and unmanageable information. In addition, the data should log according to dates, names, times, and places where, when, and with whom they were gathered;

2) Immersion in the data: reading through the data is a key factor achieving familiarity. This underscores how much qualitative reporting consists of descriptive data. Careful attention to how data are reduced is necessary throughout the research;

3) Generating categories and themes: the process of category generation involves noting patterns evident in the setting and expressed by participants. The categories should be internally consistent but distinct from one another;

4) Coding the data: coding data is the formal representation of analytic thinking. The tough intellectual work of analysis is generating categories and themes. Then applies some coding scheme to those categories and themes, and diligently and thoroughly marks passages in the data using the codes. Codes may take several forms:

abbreviations of key words, coloured dots, and numbers. If software is not used and the analysis is carried by hand, different coloured dots may use and placed on the interview transcripts and field notes or to underline passages with differently coloured highlighting pens;

5) Offering interpretations: after categories and themes are developed, interpretations process begins. Interpretations bring meaning and coherence to the themes, patterns, categories, developing linkages and a story-line that make sense and is engaging to read. Interpretations means attaching significance to what found, making sense of the finding, offering explanations, drawing conclusions, extrapolating lessons, making inferences, considering meaning and otherwise imposing order. As part of this step is evaluating the data for their usefulness and centrality;

6) Searching for alternative understanding, following the above steps, the researcher begins the process of evaluating the plausibility of his developing understandings and of exploring them through the data. As the categories and patterns in the data has been discovered, the researcher engage in critically challenging the very patterns that seem to apparent. The researcher should search for other plausible explanations for these data and the linkage among them;

7) Writing the report or representing the inquiry is central to the choice of words to summarize and reflect the complexity of the data. The researcher is engaging in the interpretive act, lending shape and form meaning to mountains of raw data. It is important to consider what modalities must be used for the final reporting. For dissertations this is typically done by outlining the chapters to be included in the final document.

4.1.4.4 Multi-methods and triangulation

Burgess (1982) to describe the use of diverse methods to tackle research problems used the term 'multiple research strategies'. Research methods, which do not encompass observation, informant interviewing and sampling are seen as narrow and inadequate. The older and more widely used terminology in the literature, which refers to this strategy, is 'triangulation' (Brannen, 1992). Triangulation in research has been defined as "the combination of two or more theories, data sources, methods, or investigators in one study of a single phenomenon" (Denzin, 1989). Several studies concluded that combined approach could strengthen the comprehensiveness and/or reliability and validity of a study (Goodwin and Goodwin, 1984; Mitchell, 1986; Murphy, 1989). In

addition, Fielding and Fielding (1986) emphasised that "The important feature of triangulation is not the simple combination of different kinds of data, but the attempts to relate them so as to counteract the threats to validity identified in each". Method or methodological triangulation involves the use of more than one research method or data collection technique (e.g. structured instruments, observations, and interviews), which are selected because each taps a different aspect or dimension of the problem being studied (Kimchi *et al.*, 1991). Method triangulation may be between methods or within methods. Within-method approach means the combination of more than one similar data collection strategy in one study to measure the same variable(s). 'Between methods triangulation' refers to the use of both qualitative and quantitative approaches in a particular study to investigate the same unit (Denzin, 1989; Kimchi *et al.*, 1991). Triangulation can be applied in all stages of the research process. It can also relate to the methods of data collection, the manner in which data are employed, the investigator, the critical stance and the theoretical perspective (Blaikie, 1988).

The approach of this research project included both measures and generalizations to a large population through the gathering of quantitative data. It sought 'thick' descriptions through the collection of qualitative data and review of the current documents by using documentary method. Triangulation can make an important contribution to this by:

- Allowing us to view a particular point in the research from more than one perspective;
- Add more depth and breadth of understanding to the studied subject and hence to test validity.

4.1.4.5 Research justification

Research philosophy, theoretical approach, methodology, and data gathering methods must be justified according to research aims, objectives and research questions. According to Gray (2005), the choice of research methodology is determined by a combination of several factors. These are for example, whether the researcher believes that there is some sort of external 'truth' out there that needs discovering, or whether the task of research is to explore and unpick people's multiple perspectives in natural, field-settings. This research has been designed to gather information about the key players of organic farming systems (producers, consumers, supermarkets, and alternative market

outlets) through testing people's opinions about specific categories. Hence, each of these players may require specific approaches and methodologies. Information about organic producers can be gathered through objectivism epistemology. Positivism is the appropriate philosophical approach to gather such information. The appropriate methodology and data collection method linked to this approach are postal questionnaires. Because of the large number of producers, it may be difficult to conduct face-to-face interviews with them. This method was chosen as an appropriate method to address the objectives and to provide answers to the research questions. Telephone interviews were also conducted with selected producers (those who agreed to be contacted were chosen) to help clarify their responses.

For organic consumers surveys have been conducted in the UK to assess consumers' motivations and the barriers to their purchase of organic food. Most of them came to the same conclusions. There is little merit in wasting time conducting another survey and repeating what may have been done previously. For this reason these surveys were considered to be a robust source of critical information. Rather than repeat them, they were reviewed and compared in order to assess tensions and to draw conclusions. In addition, qualitative data were gathered about organic consumers during the interviews with key representatives from supermarkets, alternative market outlets, and the Soil Association. This information was coded, analysed, and interpreted. Some other data were collected by reviewing other documents such as literature, reports and journals.

In order to gather detailed information about organic food marketing and supply chains, specialists were contacted to produce 'thick descriptions' of their experiences or perspectives about these areas. According to Figure 9, these approaches are constructivism and interpretivism and the methodologies and methods linked to these approaches are phenomenological research and interviews respectively. As indicated by Gray (2005) there are a number of situations in which the interview is the most appropriate method. For example, if the research objective is largely exploratory, involving the examination of feelings or attitudes or personal opinions, or if the researcher needs to probe for more detailed responses where the respondent is asked to clarify what they have said. More importantly, the interview allows people an opportunity to reflect on events without having to commit themselves in writing, often because they feel the information may be confidential. Interviews were conducted with key people in the four leading supermarkets and in five alternative market outlets.

4.2. Part Two: Research Design and Process

4.2.1 Research design

Research design provides a framework for the collection and analysis of data. There are several stages involved in the process of research design as indicated by de Vaus, (2002). As illustrated in Figure 10, the first stage is to develop a theory / hypothesis to be tested and this is from an empirical observation. The second step is to derive a set of conceptual propositions (statement, which specifies the nature of a relationship between variables/factors). For example, it is suggested that the stronger the relationships between key players in organic farming, the greater the growth and development of the system. The third step is to translate abstract concepts into something more concrete and directly observable. For example, the key players are organic producers, organic consumers, supermarkets, and alternative market outlets. The growth and development are characterised by more lands converted to organic, more organic food production, more consumption *etc.* Now the conceptual propositions have been re-stated in a testable form, the fourth step is to decide what data are relevant to test the theory / hypothesis and then to begin collection through appropriate methods. As discussed in the first part of this chapter, a multi-methods (triangulation) approach was used to collect relevant data and information. The fifth step was to analyse the collected data by using appropriate methods of testing. The Statistical Package for Social Sciences (SPSS) was used to analyse the collected data. The information from all interviews was coded, analysed, and interpreted manually. The sixth step was the discussion and interpretation of findings and correlation to the proposed theory / hypotheses to see whether these are supported.

The process of research design (Figure 10) and research model (Figure 8) provides help and guides the research to implement the methodology and test the hypotheses. These related to the key players in the system and the interrelationships between them.

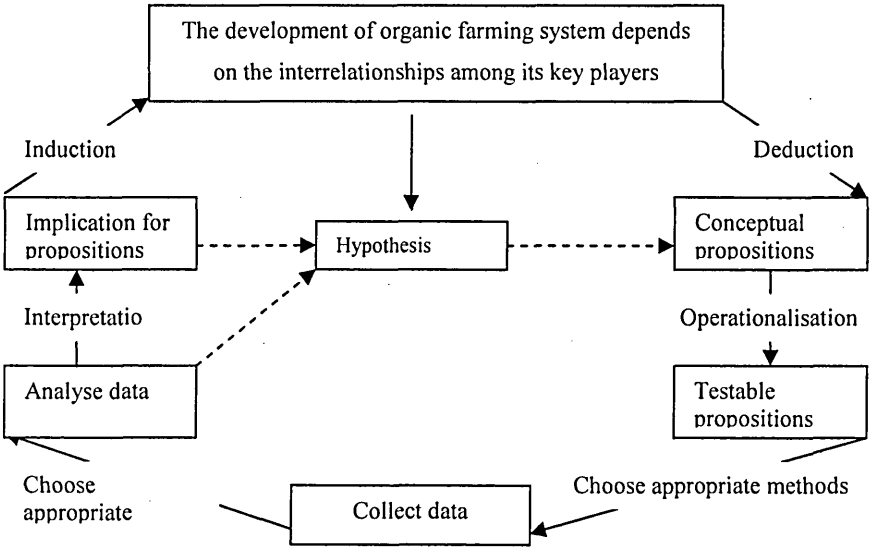


Figure (10): Process of research design Adapted from de Vaus, 2002.

4.2.2 Data collection

4.2.2.1 Organic producers

As indicated in Chapter Two in 2006 there were 4,343 organic farms registered in the UK in 2006. These farms were classified by regions: England, Wales, Scotland, and Northern Ireland. Because of the difficulties of contacting farmers across all regions and for more focus, only the England region was selected. Purposive sampling technique (Sarantakos, 2005) was used to select the following regions within England for the case study: Northeast, Northwest, East Midlands, West Midlands, Eastern, and Yorkshire (Figure 11). These regions were selected due to the following reasons:

- The prime reasons for conducting this project is that, there is not much research done in these regions compared with other regions across the UK.
- These regions represent a wide diversity of land-use in the UK.
- These regions contain apparently small numbers of organic farms (Table 2) as well as small amounts of organic and in-conversion land (Table 1). It is therefore interesting to know more about farmers' motivations and barriers in these regions.

Figure (11) Map of study areas

Within the selected regions, only producers who are registered with the Soil Association (the biggest certification body in the UK) were chosen. The Information centre at the Soil Association was contacted to gain access to the organic producers in the selected regions. A list of 637 organic producers in the studied regions was provided for the purpose of this research (Table 3).

Table (3): Number of organic farms in six selected regions of England.

Region	County	Organic producer	Total
North East	1. Cleveland 2. Durham 3. Northumberland 4. Tyne and Wear	01 11 25 03	40
North West	1. Cheshire 2. Cumbria 3. Lancashire 4. Merseyside	22 39 26 6	93
East Midlands	1. Derbyshire 2. Leicestershire 3. Lincolnshire 4. Northamptonshire 5. Nottinghamshire	26 21 45 10 07	109
West Midlands	1. Herefordshire 2. Shropshire 3. Staffordshire 4. Warwickshire 5. West Midlands 6. Worcestershire	73 53 25 22 8 29	210
East Anglia	1. Cambridgeshire 2. Norfolk 3. Suffolk	28 43 36	107
Yorkshire	1. West Yorkshire 2. South Yorkshire 3. East Yorkshire 4. North Yorkshire	12 04 13 49	78
Total	**26**	**637**	**637**

4.2.2.1.1 Questionnaire design and distribution

The questionnaires were designed as self-administrated postal questionnaires (Sarantakos, 2005). Different types of questions were used in the questionnaires (statement, rank order, rate items choose from a list *etc.*) to gather the needed information about the studied topic. A copy of the questionnaire is in Appendix 1.

The questionnaires had five sections. The first covered general information about producers themselves such as age, gender, formal training, method of conversion and financial situation. The second covered producers' motivations toward conversion and their concerns before and after conversion. The third covered organic food marketing. The fourth section covered farmers' information and knowledge about organic agriculture and the accessibility to such information. The last section covered the impact of interrelationships (cooperation) among the stakeholders, on the growth and development of organic farming.

Farmers were asked their opinions about the effects of interrelationships / cooperation on organic farming growth and development. Secondly, telephone interviews were conducting with selected farmers (who had already agreed to be contacted) for more clarification about how such interrelationships affect specific aspects of organic farming development. For example, the farmers' opinions were requested regarding the impact of the interrelationships on organic food consumption, the amount of land in conversion, and on the amount of organic local products. The questionnaire also contained open-ended questions to allow respondents to state their answers in their own way and in their own words.

4.2.2.1.2 Distribution and cover letter

The final version of the questionnaires was checked with the supervisory team before distribution. Then the addresses of the producers in the selected regions were prepared and printed out on the envelope labels. The envelopes were prepared with the name and address of each respondent. A pre-paid envelope addressed to Sheffield Hallam University was also prepared and attached to the questionnaire so the respondents were able to return their response more easily. A set of 636 questionnaires was printed out and prepared for posting. In order to maximise the response rate and motivate the respondents to complete the questionnaires, an official letter was sent along with each questionnaire. In addition, all sets of the questionnaires were printed on green coloured paper. The first set of 300 questionnaires was sent on the 3rd of January 2006. The second set of 337 was sent on the 7th of February 2006. The responses were collected and entering in the computer as soon as they received.

4.2.2.1.3 Response rate

Response rate was defined by Denscombe (1998) as the proportion of the total number of questionnaires distributed which are completed and returned as requested." Poor response rates are often mentioned as insurmountable problems that make postal surveys impractical. However, the response rate obtained in a particular study was influenced by the combined effect of the topic, the nature of the sample, the length of the questionnaires, the care taken in implementing the particular survey, and other related factors. There were situations where a well-administrated mail survey will yield response rates at least equal to both personal and telephone interviews (De Vaus, 2002). In addition, Caroll, (1994) indicated that response rate of 15% to 20% for postal questionnaires are deemed acceptable. According to Saunders *et al.,* (2003), a common way of calculating the response rate is with the formula:

Response rate = Number returned/N in sample - (Ineligible + Unreachable) x 100

There were 237 responses out of 636 and 20 returns of 'not at this address'. By using the above formula, the response rate was calculated as follows:

Response rate = 237/636 - 20 x 100

Response rate = 38.47 %

According to Caroll, (1994), 38.5 % is an acceptable response rate and the received data are considered valid data for analysis. Selected organic producers, who agreed to be contacted for further clarification, were interviewed over the telephone to discuss their responses in more depth.

4.2.2.2 Organic consumers

As noted earlier documents can be treated as a source of data in their own right - in effect an alternative to questionnaires, interviews or observation (Denscombe, 1998). In-depth literature survey was conducted to underline the current knowledge and information about organic consumers. Through this the consumers' motivations and barriers to buy organic food, interrelationships between consumers, producers, and retailers, and aspects of the information flow were quantified. In addition, the current surveys conducted on organic consumers were reviewed. All the gathered information

was organized and coded for analysis and interpretation. It is also important to note that there were several questions addressed to all respondents in supermarkets, alternative markets outlets, and the Soil Association. These were about consumers' motivations, obstacles, and barriers to buying organic foods. This information was coded and analysed as qualitative data.

4.2.2.3 Retailers/supermarkets

As indicated earlier that supermarkets account for 80% of organic food sold in the UK (Soil Association, 2001a). Therefore, they are considered the dominant channel through which UK consumers purchase organic food (Hallam, 2003; Soil Association, 2005). Seven big supermarkets (TESCO, ASDA, Sainsbury's, Waitrose, Morrison, Marks and Spencer, and Somerfield) were chosen and contacted to gather detailed information about their motivations, the barriers and strategies for the distribution and sale of organic foods. Despite the intensive attempts to engage all the above supermarkets in this research, only four (TESCO, ASDA, Sainsbury's and Somerfield) agreed to provide the information needed. The reason for choosing supermarkets as one of the key players of organic farming system is that they are the dominant channels through which UK consumers purchase organic food (Hallam, 2003).

4.2.2.3.1 Conducting interviews

Structured and semi-structured interviews were chosen as appropriate methods to gather the information needed for this project. The logic was explained earlier. The information desks of all the above supermarkets were contacted to arrange face-to-face interviews with their experts in this field. The first interview was conducted with the technical manager of TESCO at TESCO House, Cheshnut in October 2005 for about 90 minutes. During the interview, the respondent was given enough time to speak more widely on the questions asked. More depth and specific questions about the main core of the research topic were also addressed and all the answers were written down. The second interview was conducted with brand manager for organic foods at ASDA. This was at the ASDA House, Leeds on November 2005 for about 60 minutes. The same way in the first interview was exactly followed, more questions were addressed depends on the respondent's answers. The third interview was conducted with the Head of Brand Policy and Sustainability of Sainsbury's at J Sainsbury's Ltd. London in November 2005

for about 45 minutes. The respondent gave her opinions about the questions asked and she agreed with the published findings from the Soil Association's report (2005). The Soil Association's 2005 report was considered a major reference point when more clarification was needed. All attempts to conduct the fourth interviewee (the Category Buyer of Somerfield Supermarket Ltd) failed due to his tight schedule. The questionnaire was therefore sent to him by email, as he preferred and his written response was received in January 2006.

4.2.2.3.2 Test for validity

One of the important questions asked after conducting an interview, is how do we know if the informant is telling the truth? Despite the difficulties of checking and verifying what someone tells you about their thoughts and feeling, there are still some practical checks to help gauge the credibility of what they have said. The interview data can be corroborated with other sources of information or even checked against other interviews to see if there is some level of consistency (Denscombe, 1998). In order to check and verify the interview data from supermarkets and other source of information, a face-to-face interview was conducted with the Market Information Manager at the Soil Association in Bristol in March 2006 for about 90 minutes. The questionnaires for the interviews were prepared and classified with data collected from the supermarkets into four main sections: Consumers and producers, organic food supply-chains, supermarkets and interrelationships. The questionnaires were checked and approved by the supervisory team before conducting the interview.

4.2.2.4 Alternative market outlets

With regard to the total amount of organic and in-conversion land across all regions of England, Yorkshire and Humberside was the region with smallest area managed as organic which accounts for 1% of total agricultural area in the county (Table 1). This may have negative impacts on local organic food production in the region and consequently on the organic food market. In order to investigate this point, the alternative market outlets that are registered with the Soil Association in this region were selected as a case study. Their motivations and barriers towards organic foods were assessed. The interrelationships between these outlets and consumers, producers, and supermarkets were also considered. All the organic processors, (eleven in total) in

this region, were contacted. Five organic processors agreed to provide the information necessary for this research. These outlets were:

1. Beano Whole foods organic cooperative (whole foods, vegetables/salad/fresh herbs, fruit), Leeds, West Yorkshire.
2. Hawthorne House Farm (farm shop, Meat/poultry, vegetables/salad/fresh herbs, fruit, box scheme), Leeds, West Yorkshire.
3. Growing with grace (Whole foods, vegetables/salad/fresh herbs, fruit, farm shop, box scheme) Lancaster, North Yorkshire.
4. Beanies Whole foods (Whole foods, vegetables/salad/fresh herbs, fruit, farm shop, box scheme) Sheffield, South Yorkshire.
5. Doncaster Farmers' Market, Doncaster, South Yorkshire.

The questionnaires for the interviews were prepared as described above. All the outlets were contacted to arrange the interviews. The interviews were conducted during June and July of 2006. All the data gathered from all the interviews were coded, transcribed, and prepared for analysis and interpretation.

CHAPTER FIVE

5. RESULTS & ANALYSES

This chapter consists of three parts; the first being results and analysis of quantitative data (the farmers' questionnaires). The second part presents a review of the available surveys and information on organic consumers gathered from other sources. The third part presents the results and analysis of qualitative data (the interviews with multiple retailers and selected alternative market outlets).

5.1 Quantitative data analysis

5.1.1 Farmers' questionnaire. Frequencies

All data received from organic farmers (farmers' responses) were analysed using Statistical Package for Social Sciences (SPSS) software. Frequencies procedure (provides statistics and graphical displays of variables) were used as first step in the analysis to display and describe all the tested variables. These variables were considered and presented both graphically and in tables when appropriate. Further analyses were conducted to evaluate relationships, to test significance and consider other specific factors. The farmers' responses are presented in six sections. Full details of the outputs of the analysis are in (Appendix 2).

5.1.1.1 Section one. General information

This section presents general information about organic farmers and their farms. For farmers: the factors addressed were gender, age, formal training, and financial situation before conversion, and business affected during and after conversion. Farm size, farm type, farm location, and method of conversion also considered.

5.1.1.1.1 Farmers' information

As indicated in Figure (12), most organic farmers are in the age-bands of 40-50 years and 50-60 years with 40% and 30% respectively. This indicates that organic farmers are generally younger compared with non-organic farmers. This will be discussed in detail in the discussion section.

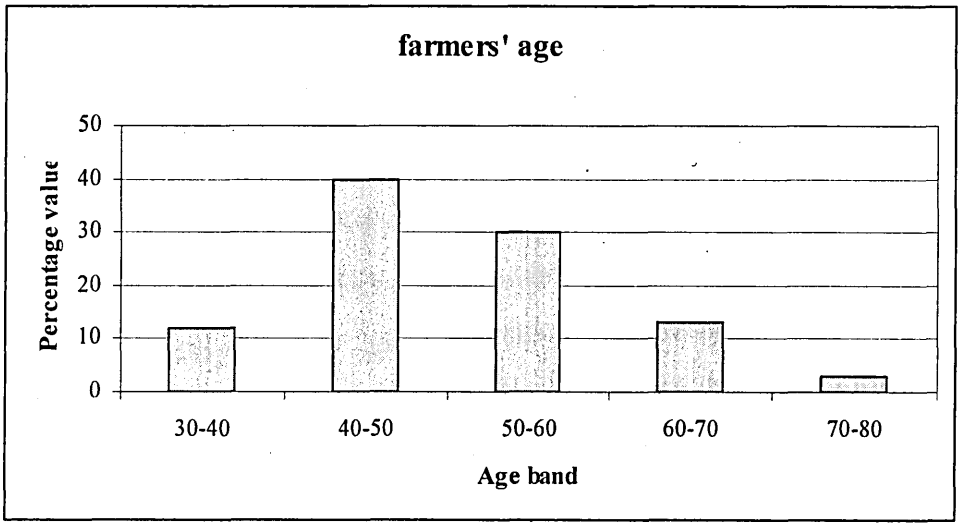


Figure (12) Age bands and percentage value for organic farmers in selected regions in England.

In terms of gender, 80% of organic farmers in the selected regions were male, only 20% were female (Table 4).

Table (4) Gender, frequencies and percentage for organic farmers in selected region in England.

Gender	Frequency	Valid Percent
Male	190	80
Female	47	20
Total	**237**	100.0

There were 158 farmers (67%) out of 235 that converted to organic farming with no formal training. The rest of the farmers were formally trained (Figure 13). It seems that farmers were adopting organic without formal training in the field.

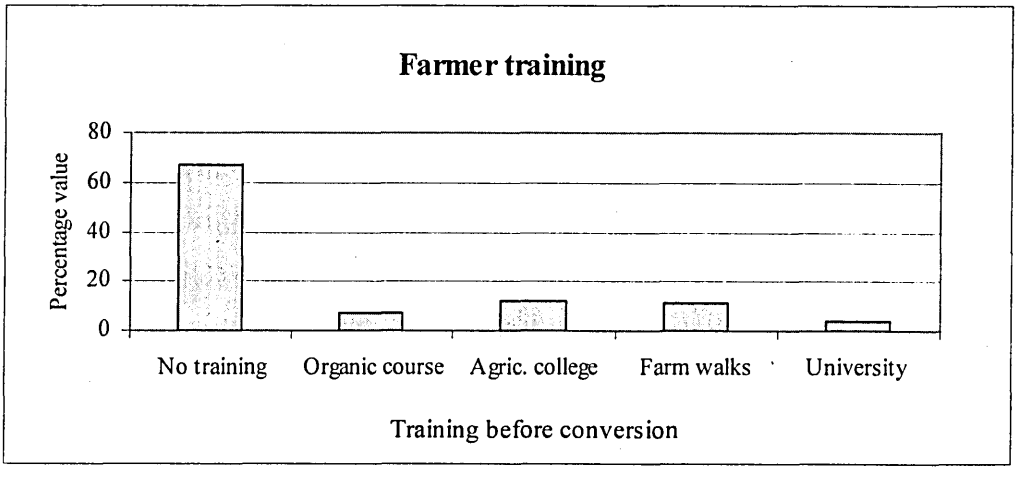


Figure (13) Formal training before conversion for organic farmers in selected region in England.

When organic farmers were asked about their financial situation before conversion, 55% of the sample (227 farmers) said that their situation was 'satisfactory'. About 28% indicated that their situation was 'weak', and 18% indicated that their situation was strong (Figure 14). This may indicate that farmers may adopt organic for other reasons rather than profits. This will be investigated later in the next chapter.

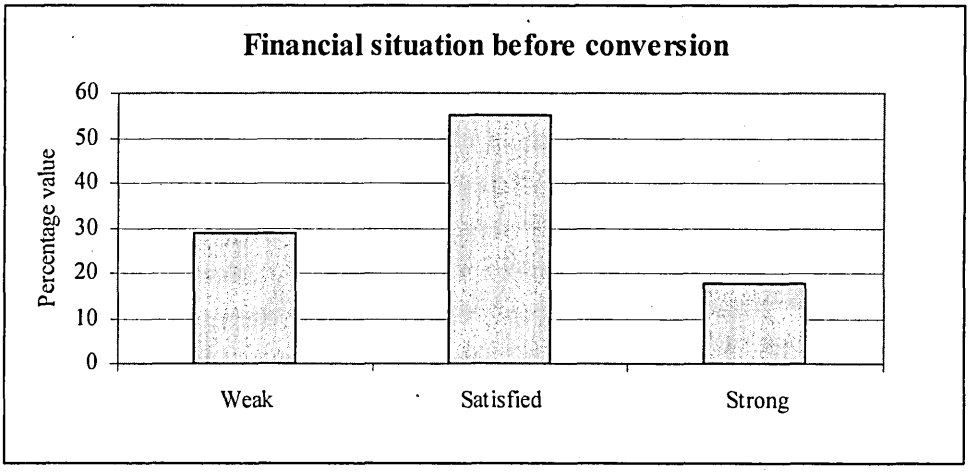


Figure (14) Financial situation before conversion for organic farmers in selected region in England.

Organic farmers were also asked if their business during and after conversion was affected. About 35% farmers (72 out of 204) noticed 'no change' in their business during conversion. However, after conversion 81 (40%) out of 202 farmers suggested 'small improvement' in their business (Table 5).

Table (5) Organic farmers' business during and after conversion.

Farmers' business	During conversion		After conversion	
	Frequency	Percent	Frequency	Percent
Large Improvement	11	05	48	24
Small Improvement	56	28	81	40
Small Deterioration	38	19	17	08
Subst. Deterioration	15	07	06	03
No Change	72	35	40	20
Don't Know	12	06	10	05
Total	**204**	100.0	**202**	100.0
Missing	033		035	
Total	237		237	

5.1.1.1.2 Farms' information

Farm sizes as judged subjectively by each producer based on their level of operation was classified as small, medium and large. Figure 15 shows that 140 (60%) organic farms out of 235 were classified as small. About 30% were medium, and 12% large. It appears that the production of the majority of the farms is classified as 'small'. This may be a reflection of the small quantity of organic food, which currently produced, but particularly the types of farms that have undergone conversion.

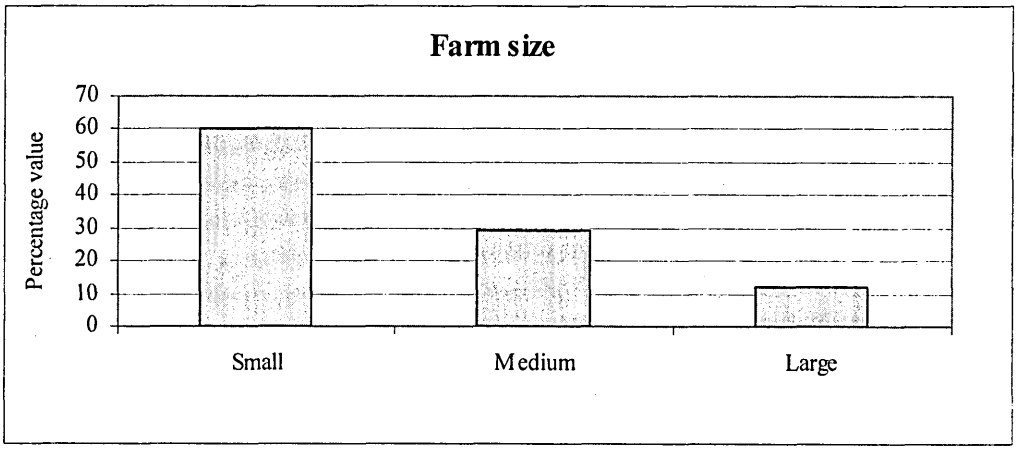


Figure (15) Organic farm size.

Most organic farms in the studied regions were livestock. As illustrated in Figure (16), 108 farms (46%) out of 237 were classified as livestock. Twenty-three percent were horticulture, 13% were dairy, 5% were arable, and 14% were classified 'other', which refers to mixed farms or poultry production.

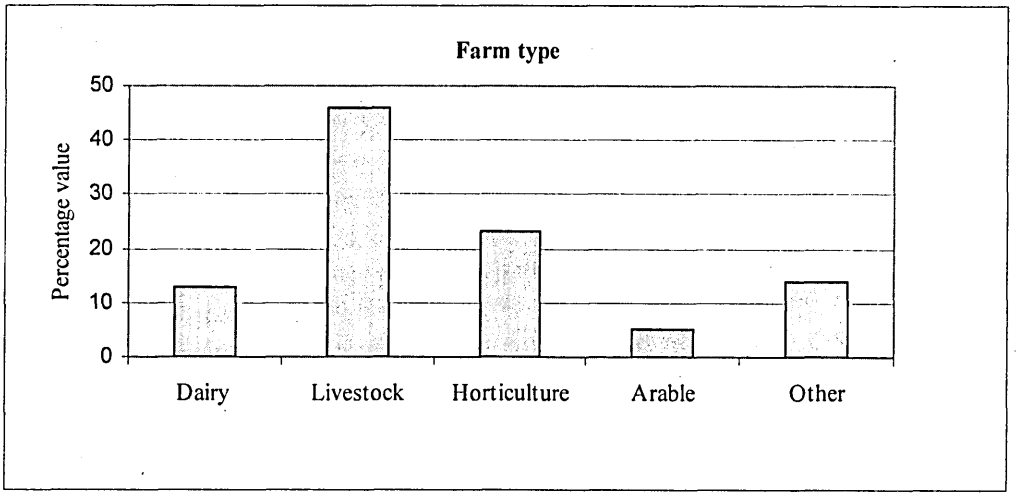


Figure (16) Organic farm type.

Organic farmers seem to prefer converting their farms as whole instead of staged part-conversion. One hundred and forty-four farmers out of 226 preferred to convert their farms completely, compared with 82 farmers who preferred staged part-conversions.

5.1.1.2 Section two. Motivations and concerns

In this section, farmers' motivations toward conversion are identified and presented. Farmers' concerns before and after conversion is also presented and compared.

5.1.1.2.1 Farmers' motivations

Organic farmers were asked about their motivations and drivers towards conversion. The importance of each motivation is presented in Figure 17. It is clear that environment (59%), job satisfaction (46%) and health benefits (40%) for family were the main motivations for farmers toward conversion. However, it is particularly interesting to see that 81% of organic farmers had other motivations for conversion.

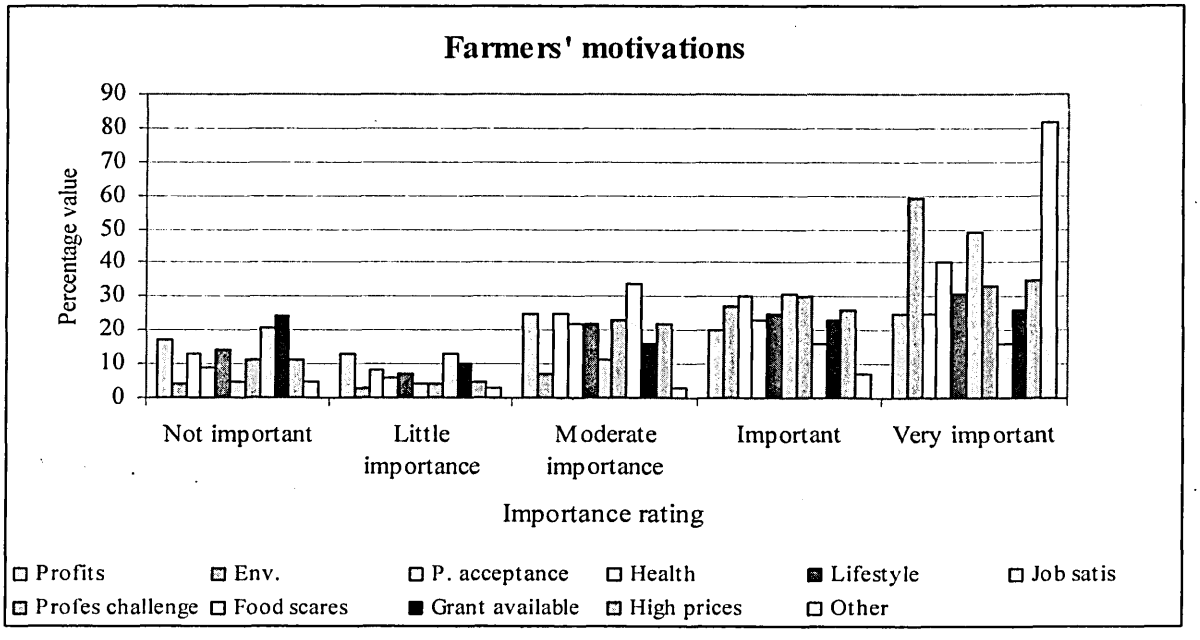


Figure (17) Organic farmers' motivations toward conversion

Better animal welfare, high demand for organic food, and direct marketing opportunities were frequent motivations for most farmers. Some farmers adopted the system because of their personal belief that organic is the right thing to do. They felt it would improve

wildlife on their farms and they support the philosophy of the organic approach supported by research programmes. Some of these motivations are presented in Table 6.

Table (6) Classification of farmers' motivations based on farm size and type.

Farm size	Farm type	Motivation
Medium	Livestock	Better animal welfare
Medium	Mixed	High demand for organic product
Small	Livestock	A way to directly market produce
Medium	Arable	Dislike chemical input
Large	Arable	Professional curiosity
Medium	Mixed	Form of diversification
Medium	Livestock	Improve wildlife within farm
Small	Horticulture	Believe organic is right
Small	Livestock	Philosophy of organic farming
Small	Horticulture	To deliver organic training courses
Small	Horticulture	Health benefit for community and customers
Small	Arable/crop research	Necessity for research programmes

For more clarification, farmers were asked which of all the above motivations were the most important in influencing their decision to convert. Thirty-five percent of the sample (207 farmers) indicated that environmental considerations were the most important issue (Figure 18). This indicates that environmental conservation is a priority for the majority of farmers.

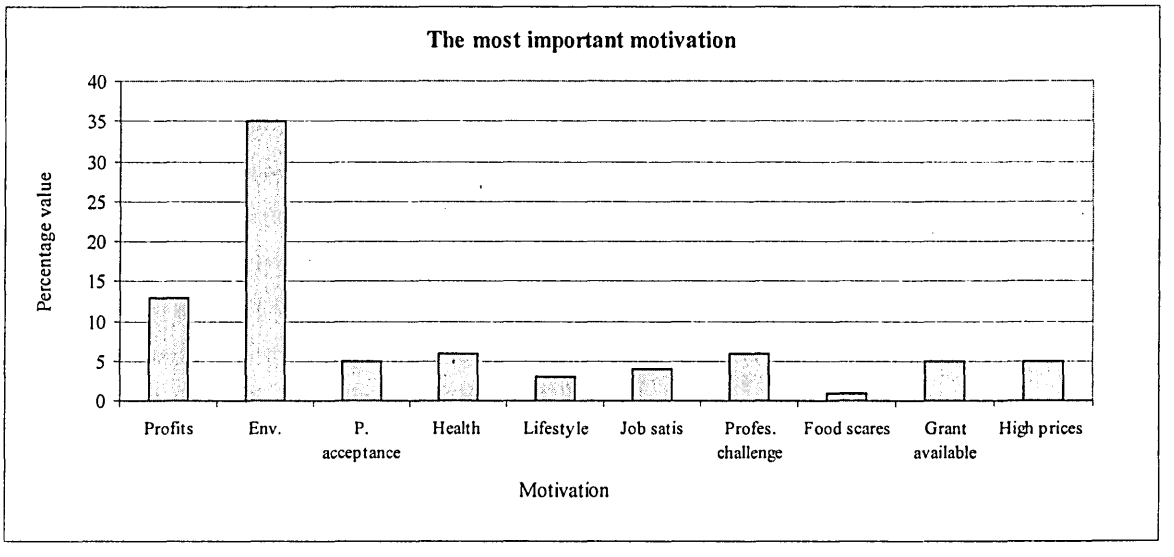


Figure (18) The most important motivation for farmers toward organic.

5.1.1.2.2 Farmers' concerns

Figure 19 illustrates farmers' concerns about a number of key issues such as low profits, access to information, registration cost, complexity of organic production and more paper work before conversion. These ranged from moderate concerns to very concerned. However, when farmers engaged in the system (after conversion), these concerns generally decreased (Figure 20). This is possibly because farmers had general fears about adopting a new system.

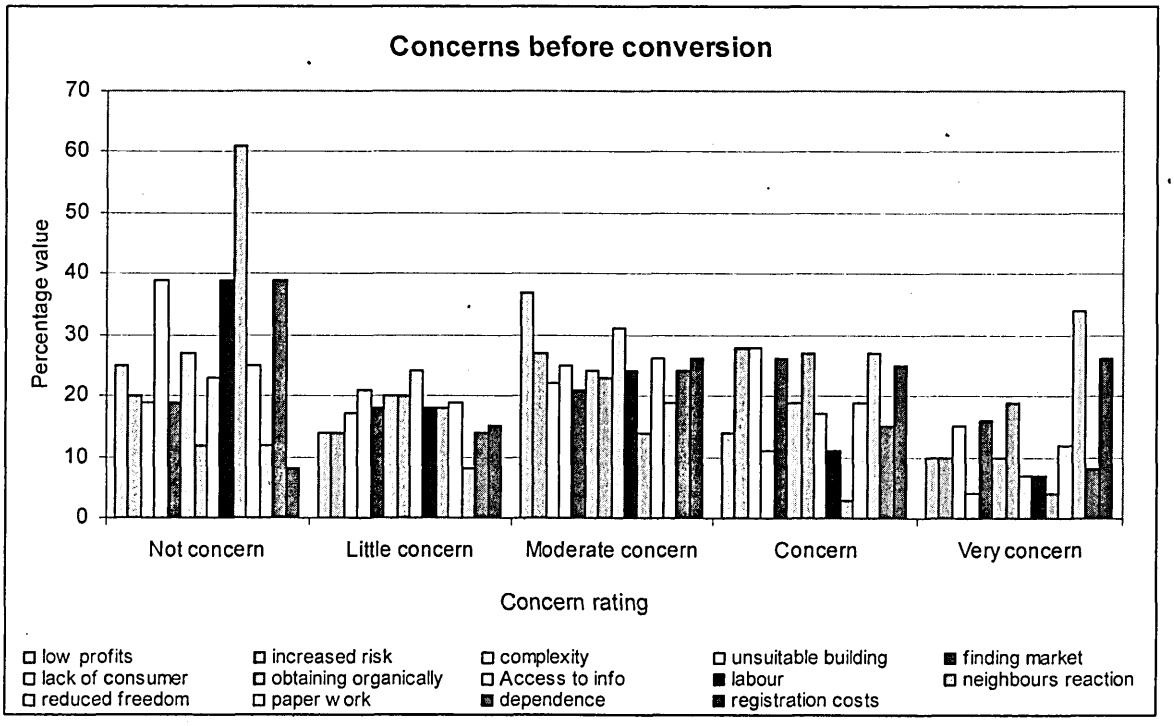


Figure (19) Farmers' concerns about different organic issues before conversion.

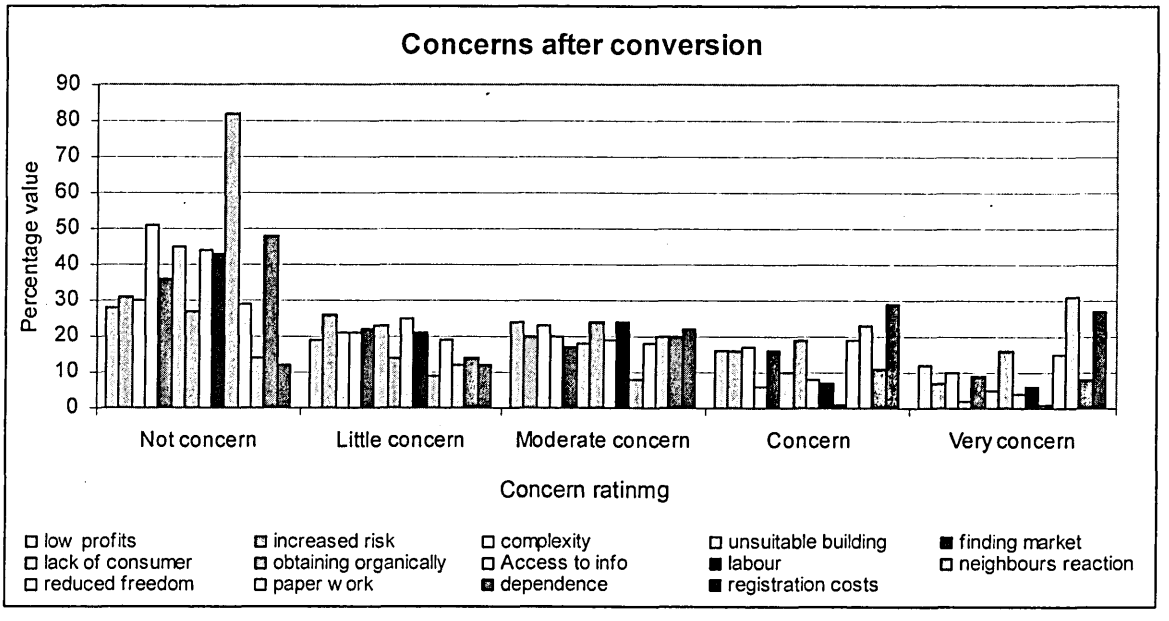


Figure (20) Farmers' concerns about different organic issues after conversion.

In order to evaluate the response and their trends, concerns before and after conversion were compared and presented in Table 7. All concerns decreased after conversion except for the issues of lower profits, and reduced freedom through the inspection process. Farmers were also concerned about registration and administrative costs. The increased dependence on state subsides (dependence on government support) was unchanged. Farmers seem more concerned about profitability and this is possibly due to the difficulties of getting access to the market. This will be discussed in later sections.

Table (7) Comparison of issues that concern farmers before and after conversion.

Issues of concern	Concern before conversion Very concerned (%)	Concern after conversion Very concerned (%)
Lower profits	10	12
Increased risk	10	7
Complexity of the system	15	10
Unsuitable building	4	2
Finding market	16	9
Lack of consumer	10	5
Obtaining organic inputs	19	16
Access to information	7	4
Availability of Labour	7	6
Neighbours' reactions	4	1
Reduced freedom	12	15
More paper work	34	31
Dependence on subsides	8	8
Cost of registration	26	27

5.1.1.3 Section three. Organic food marketing

In this section, the importance of the main marketing channels for organic farmers and how they sell their products is illustrated. The findings are presented both in figures and in graphs. When organic farmers were asked about the importance of current marketing channels, about 52% (of 160 farmers) indicated 'not important'. Seventy-eight percent of organic farmers noted the importance of 'other' channels for marketing their products (Figure 21). Most organic farmers in the sample sell their product directly to the public, to other farmers, and to restaurants. It seems that farmers prefer to deal directly with consumers perhaps through local distribution channels.

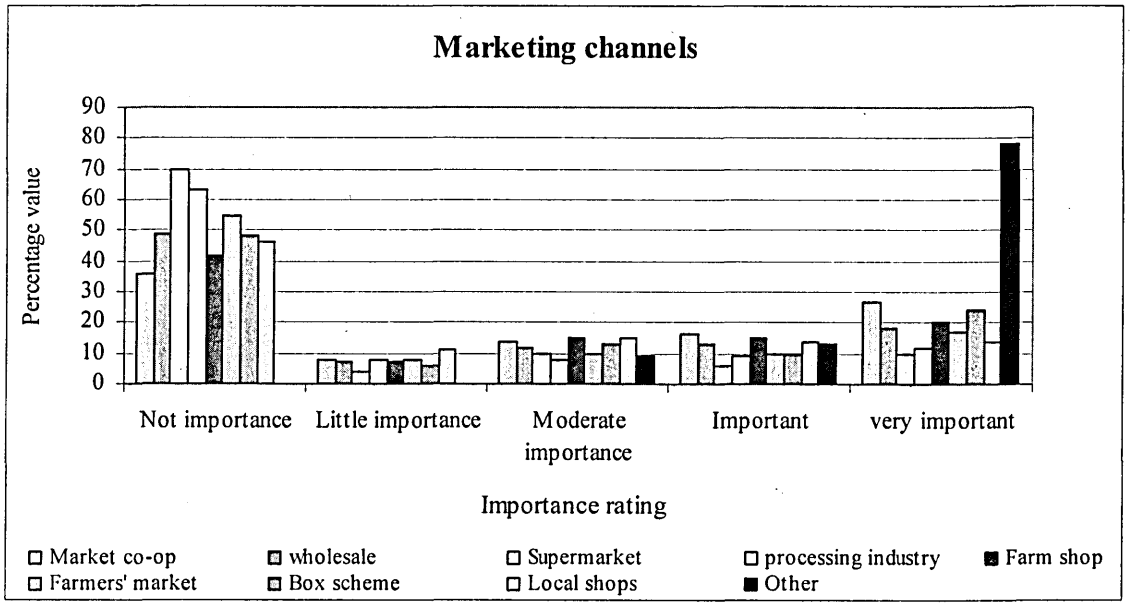


Figure (21) Importance of organic marketing channels for organic farmers.

Eighty-six percent of organic farmers indicated that they do not have direct formal contracts with supermarkets to sell their products (Table 8). This is probably due to the grades and specifications of supermarkets which farmers find difficult to meet.

Table (8). Contract with supermarkets.

Supermarket contract	Frequency	Valid percent
Yes	32	14
No	197	86
Total	229	100
Missing	08	
Total	237	

Then farmers were asked 'how they sell their produce' and again 49% used channels other than supermarkets to sell their products. Organic farmers were also asked if conversion to organic resulted in any marketing or food processing on their farms. Sixty-one percent said 'no' and 39% 'yes' (Figure 22).

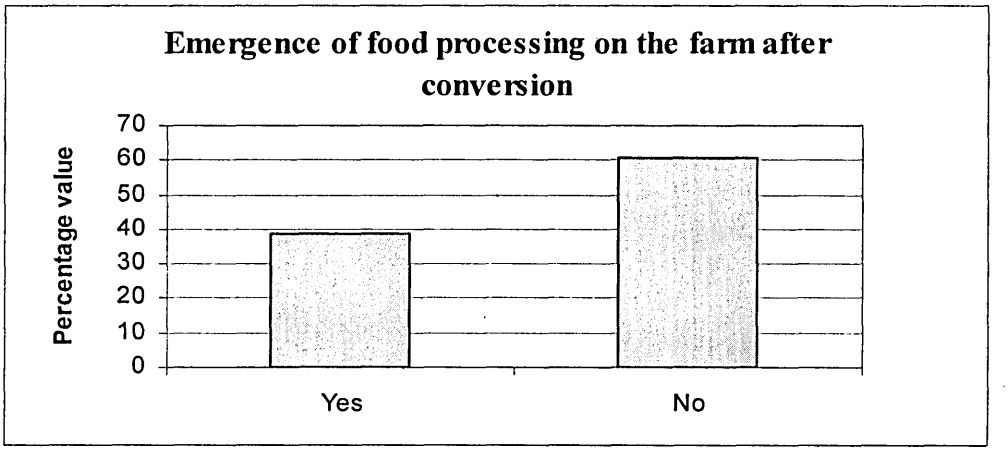


Figure (22) Emergence of food processing and marketing in the farm after conversion.

5.1.1.4 Section four. Information and knowledge

This section highlights the importance of knowledge about organic agriculture, about information flow and information sources, and how these affect farmers' decisions to convert. This section also illustrates issues of the accessibility to information and how farmers get help and advice when needed. As shown in Table 9, farmers feel that they do have sufficient knowledge to make a well-informed decision to convert to organic. One hundred and sixty (72%) farmers out of 223 felt they had sufficient knowledge about organic agriculture before conversion.

Table (9) Farmers' knowledge about organic agriculture before going in conversion

Farmers' response	Frequency	Valid percent
No	46	21
Yes	160	72
Don't know	17	08
Total	223	100
Missing	14	
Total	237	

Organic farmers were also asked whether the common sources of information were important for them in helping to decide to convert. It seems that official sources of information were not that important for organic farmers and they turned for other sources of information. However, the Soil Association and other organic farmers seem to be important for some farmers (Figure 23). This situation is possibly due to the

difficulties of getting access to the currently available information. This is illustrated in Figure 25.

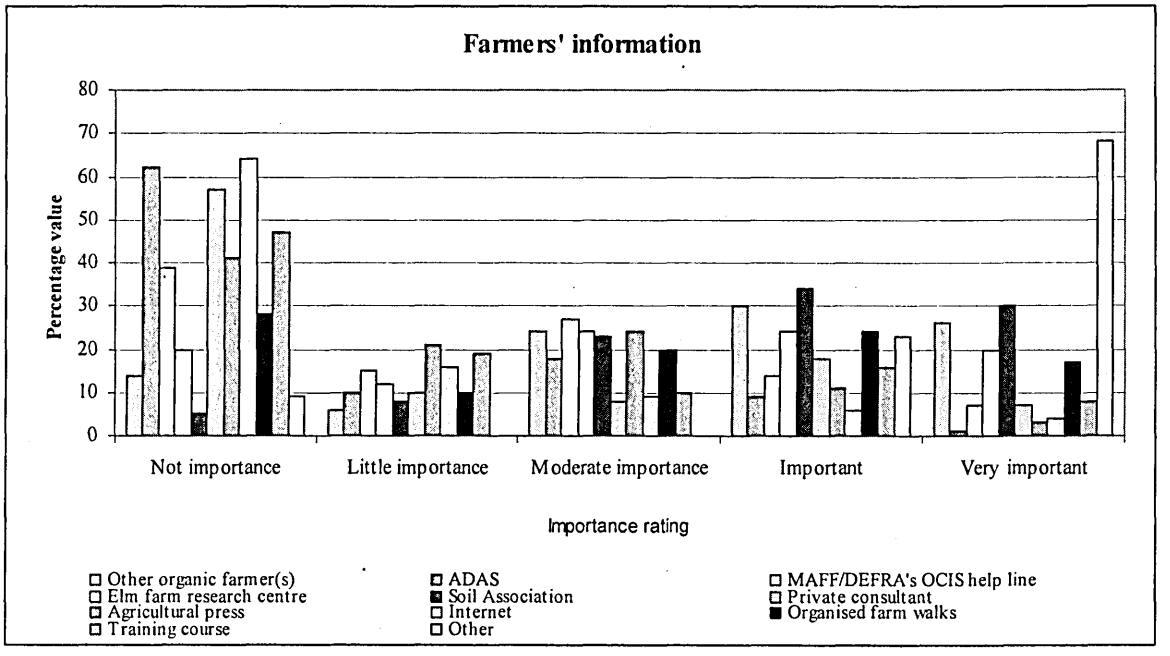


Figure (23) Importance of sources of information in helping farmers to decide to convert.

If farmers have a husbandry or marketing problem, 79% of organic farmers used other sources of information rather than turning to the common sources of information (as listed in the questionnaires) (Figure 24). For examples, 74% of organic farmers sought information from 'other sources.' These provide help and advice and it seems that they were very important. For example, most farmers sought information from links with other research groups, friends and neighbours, other organisation such as the Organic Milk Suppliers Cooperative (OMSCO) and the Heavy Duty Representatives Association (HDRA) which provides consultants for weed control.

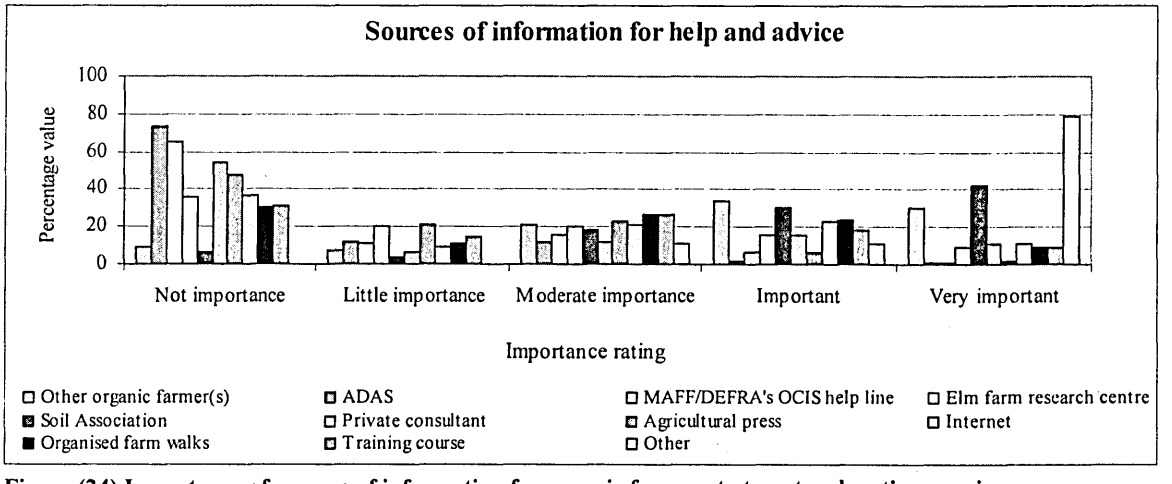


Figure (24) Importance of sources of information for organic farmers to turn to when they run in any problem.

In addition, the difficulties of getting access to the information were assessed and 76 (35%) farmers out of 219 found the accessibility was moderately difficult. Sixty-three (29%) farmers found accessibility was easy (Figure 25).

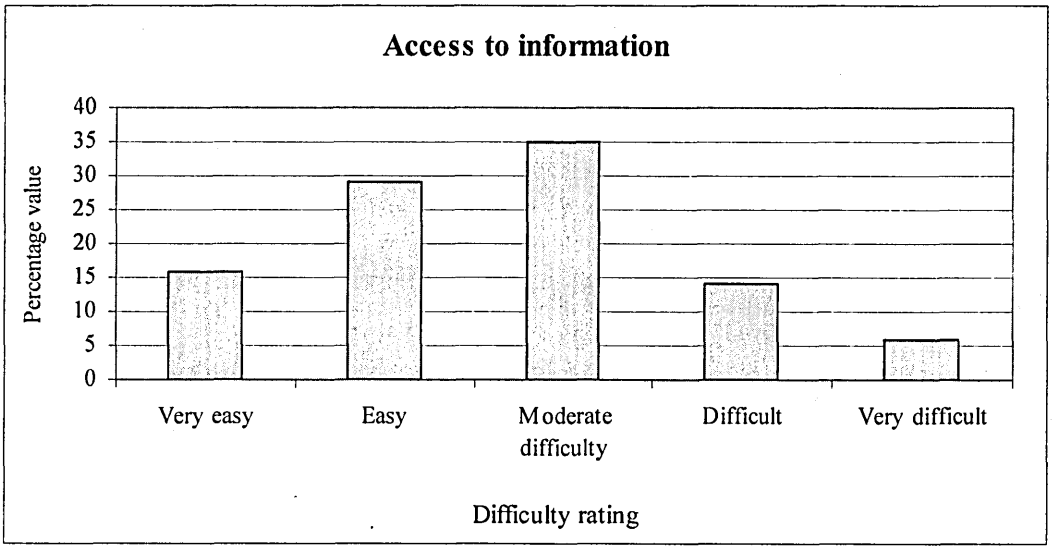


Figure (25) Difficulties of getting the information.

If no grants for organic conversion had been available, organic farmers were asked what they would do. Figure 26, shows that 111 (51%) farmers would convert even if no grants had been available. This is shows the high commitment from farmers to the value of organic food production.

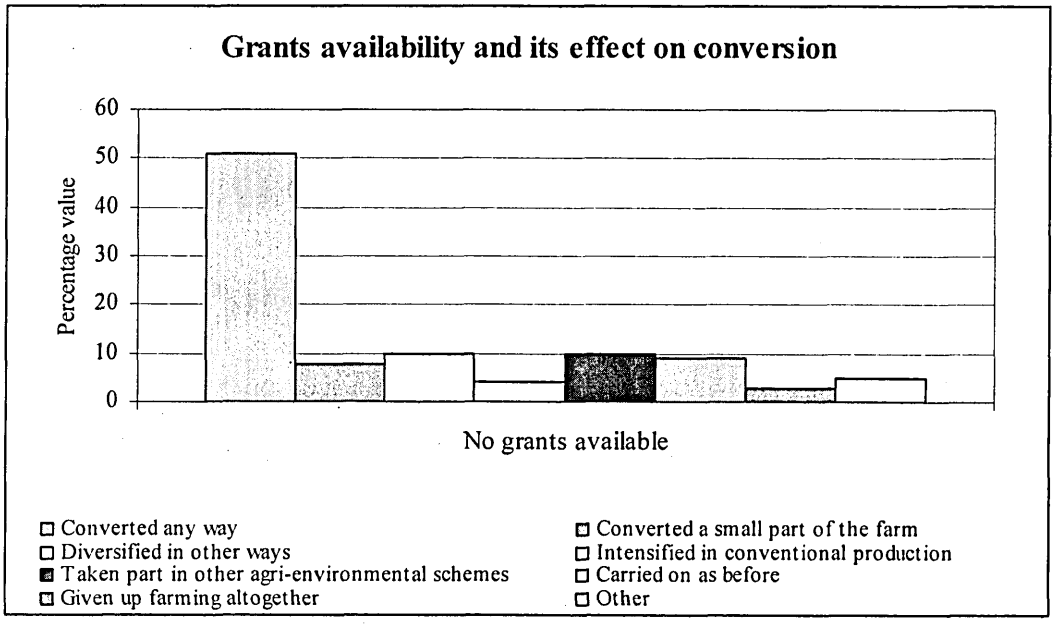


Figure (26) Grants availability and its impact on organic conversion.

From Figure 27, it is concluded that organic farmers did not regret converting to organic farming (86%) and did not seriously consider returning to conventional farming (90%).

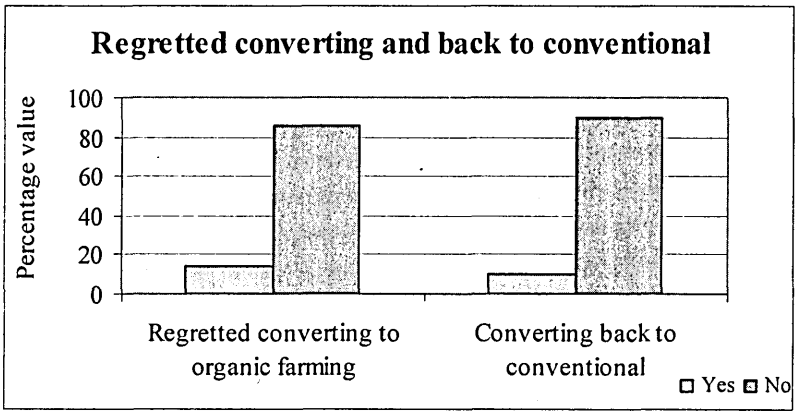


Figure (27) Regretting and converting back to conventional farming.

5.1.1.5 Section Five. Interrelationships/co-operation amongst organic stakeholders

Farmers' opinions about how Organic Farming Development (OFD) was affected by the cooperation between the stakeholders were tested; the findings are presented here. Organic farmers believed that cooperation among the stakeholders is an important issue in the growth and development of organic farming systems. About 187 (81%) farmers out of 230 agreed that such relationship is important (Figure 28).

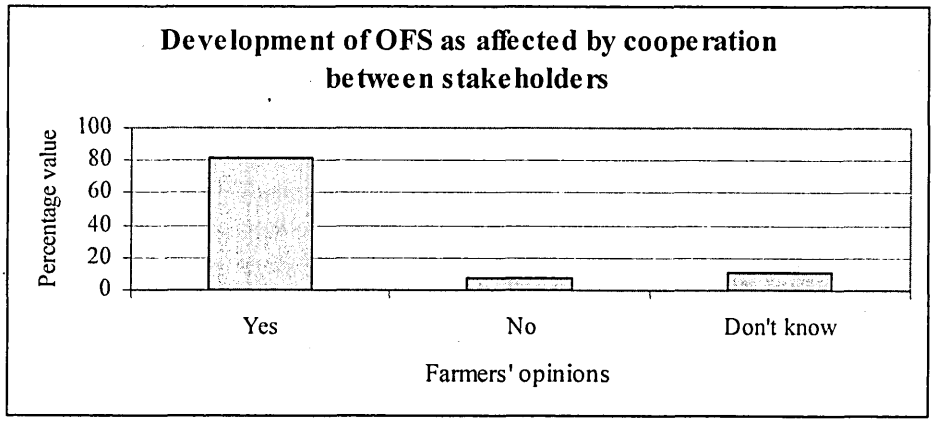


Figure (28) Farmers' opinion regarding the cooperation among the organic stakeholders.

For more clarification, some farmers were selected (those who agreed to follow-up contact) and interviewed over the telephone. They were asked about how the interrelationships affect different aspects of organic farming development and what found from this as indicated below in Figure 29. About 87% (163) of organic farmers

out of 188 agreed that the interrelationships between the key stakeholders have positive and significant effects on all major aspects of organic farming development.

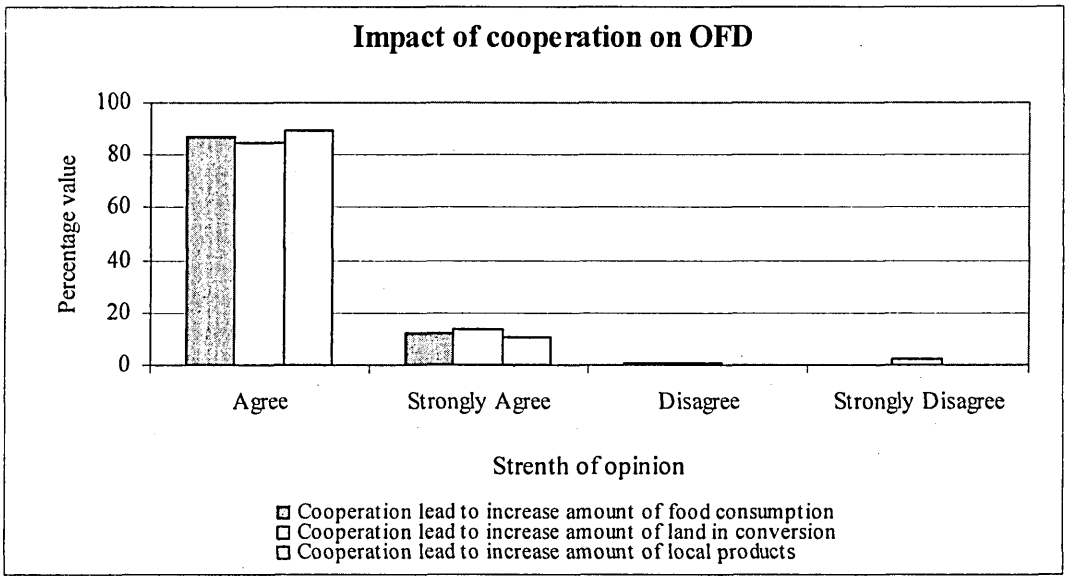


Figure (29) Farmers' opinion regarding the impact of the cooperation among the organic stakeholders on specific aspects of organic farming growth and development.

Organic farmers were also asked whether in their opinion, the import strategies adopted by the main food supermarkets were considered a major barrier to organic farming development. About 164 (87%) farmers believed that importing is a major obstacle to the growth and development of organic farming system in the UK (Figure 30).

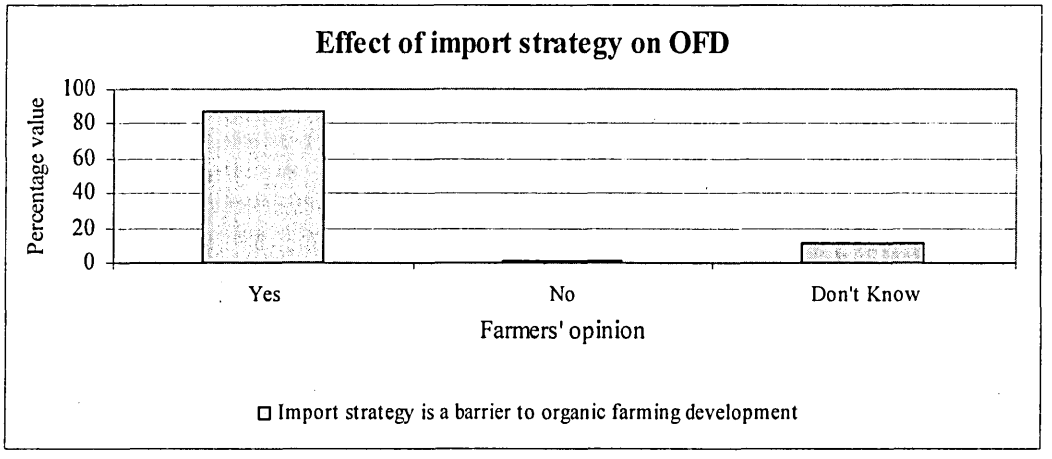


Figure (30) Farmers' opinion regarding the impact of import strategy on organic farming development.

In addition, organic farmers were also asked whether they agreed or disagreed with the statement: "the aim of the main food retailers is to support organic farmers." About 131 (70%) farmers out of 188 disagreed with this statement; two percent agreed (Figure 31).

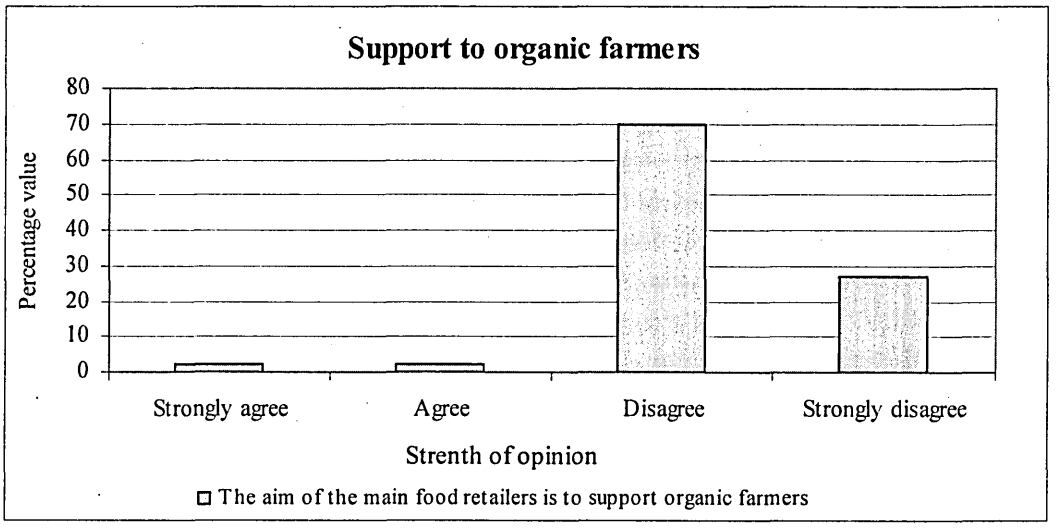


Figure (31) Farmers' opinion regarding the received support from food retailers.

5.1.2 Farmers' questionnaires. Relational analysis

Pearson Correlation was used to examine the presence or absence correlation between variables. The direction and strength of the correlation were also examined. Only the significantly correlated variables were chosen for detailed analysis and discussion.

Table (10) Pearson Correlation and probability level for selected quantitative variables.

Variables	P. Correlation	*P*. Value
Mot. x Conc. B	-0.176*	0.017
Mot x Conc. A	-0.001	0.987
Mot. x Diff	-0.149*	0.038
Suff. x Conc. B	-0.276**	0.000
Suff. x Conc. A	-0.227**	0.002
Access x Market	0.225**	0.001
Access x Compx.	0.392**	0.000
Compx. x Conc. B	0.586**	0.000
Compx. x Conc. A	0.513**	0.000
OFD x Support	0.289**	0.000
OFD x local product	0.926**	0.000
OFD x food consumption	0.872**	0.000
local product x food consumption	0.761**	0.000

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

It could be concluded from Table 10, that there is a significant negative correlation at 0.05 probability level (P= 0.017) between farmers' motivations and farmers' concerns

before conversion. The association between farmers' motivation and concerns after conversion was negative but not significant (P=0.987). There was a significant negative correlation at 0.01 probability level between farmers' knowledge before conversion and both farmers' concerns before and after conversion (P=0.00, 0.002 respectively). A significant negative correlation at 0.05 probability level (P= 0.38) between farmers' motivations and difficulties of getting information was also observed. Testing showed a significant positive correlation at 0.01 probability level (P= > 0.001) between access to information and difficulties of getting information, farmers' concerns before and after conversion, finding a market, and the complexity of organic farming. However, the correlation between access to information and sufficient knowledge was negative and significant at 0.05 probability level (P = -0.170). There is a significant positive correlation at 0.01 probability level (P= 0.000) between complexity of organic farming and farmers' concerns before and after conversion. Organic farming development (OFD) significantly correlated with the support to organic farmers, and increased both local product and organic food consumption at 0.01 probability levels (P= > 0.001). Increased local products significantly correlated with increased amount of organic food consumption at 0.01 probability level (P= 0.000).

5.1.3 Farmers' questionnaires. Significance testing

The Chi-square statistic (X^2) was used to evaluate whether the proportions of individuals who fall into the categories of a variable are equal to hypothesized as predicted values. The Chi-square test is more likely to yield significance if the sample proportions for the categories differ greatly from the hypothesized proportions and if the sample size is large (Green *et al.*, 2000).

5.1.3.1 Farmers' motivations

Table 11 shows farmers' motivations toward organic with the Chi-square statistic, degree of freedom, and the observed significance level for each variable. The results indicate that the Chi-square statistic is large and the observed significance level is small for all variables. Therefore, there was a significant difference at 0.01 probability level among organic farmers in terms of their motivations towards conversion. The null hypothesis (all farmers have the same motivations toward conversion) was rejected. The

alternative hypothesis (farmers' motivations toward conversion were different) was accepted.

Table (11) Significance testing for organic farmers' motivations by using Chi-Square test procedure

Variable	Chi-Square	DF	Asymp. Sig.
Higher profits	13.05	4	0.011
More environmental friendly	255.9	4	0.000
Better public acceptance	36.23	4	0.000
Health benefits for family	78.66	4	0.000
Lifestyle	39.71	4	0.000
Job satisfaction	166.7	4	0.000
Professional challenge	66.26	4	0.000
Publicity about food scares	29.52	4	0.000
Grants from organic scheme	18.86	4	0.000
Higher prices for organic food	62.30	4	0.000
Other	142.8	4	0.000

5.1.3.2 Farmers' concerns before and after conversion

The Chi-square analysis for organic farmers' concerns before conversion indicates that there is no significant differences among farmers for complexity of organic production and finding markets variables (P=0.022, 0.157 respectively). The null hypothesis (all farmers have the same concerns before conversion) was accepted for these two variables. However, the Chi-square analysis shows that there is a significant difference among farmers for the rest of variables (Table 12). In this case, the null hypothesis was rejected and the alternative hypothesis (farmers' concerns before conversion among farmers were different) was accepted.

Table (12) Significance testing for farmers' concerns before conversion by using Chi-Square test procedure

Variable	Chi-Square	DF	Asymp. Sig.
Low profits	49.4	4	0.000
Increased risk	27.7	4	0.000
Complexity of organic production	11.4	4	0.022
Unsuitable building/machinery	75.6	4	0.000
Finding markets	6.62	4	0.157
Lack of consumers	17.5	4	0.002
Obtaining organic inputs	12.7	4	0.013
Access to information and advice	35.6	4	0.000
Availability of labour	70.4	4	0.000
Neighbours' reaction	248.7	4	0.000
Reduced freedom through inspection	14.75	4	0.005
More paper work	52.10	4	0.000
Increased dependence on subsides	61.72	4	0.000
Costs of registration	29.66	4	0.000
Other	21.35	4	0.000

Looking at farmers' concerns after conversion, the Chi-square analysis indicates that there is a significant difference among farmers for all variables at 0.05 probability level (Table 13).

Table (13) Significance testing for farmers' concerns after conversion by using Chi-Square test procedure

Variable	Chi-Square	DF	Asymp. Sig.
Low profits	17.32	4	0.002
Increased risk	36.77	4	0.000
Complexity of organic production	23.90	4	0.022
Unsuitable building/machinery	157.6	4	0.000
Finding markets	46.10	4	0.000
Lack of consumers	106.9	4	0.000
Obtaining organic inputs	12.81	4	0.012
Access to information and advice	109.6	4	0.000
Availability of labour	97.95	4	0.000
Neighbours' reaction	527.5	4	0.000
Reduced freedom through inspection	12.67	4	0.013
More paper work	28.23	4	0.000
Increased dependence on subsides	111.6	4	0.000
Costs of registration	27.50	4	0.000
Other	18.00	4	0.001

5.1.3.3 Farmers' information

Regarding the importance of the common source of information for organic farmers, Chi-square analysis shows that there is a significant difference among farmers for all variables tested (Table 14).

Table (14) Significance testing for organic farmers' information by using Chi-Square test procedure

Variable	Chi-Square	DF	Asymp. Sig.
Other organic farmers	34.68	4	0.000
ADAS	195.3	4	0.000
MAFF/DEFRA's OCIS help line	53.63	4	0.000
ELM farm research centre	20.43	4	0.000
Soil Association	61.74	4	0.000
Private consultant	150.1	4	0.000
Agricultural press	70.03	4	0.000
Internet	204.02	4	0.000
Organised farm walks	16.16	4	0.000
Training course	76.13	4	0.000
Other	12.64	4	0.000

5.1.1.6 Section Six. Open-ended questions

At the end of the questionnaires, organic farmers were asked to give their own opinions in their own words about two open-ended questions. The first question requested the farmers' opinion about 'what is the single most important barrier to the development of the organic sector in the UK?' The second question about if the farmers wish to make any additional comments. The most frequent barriers to the development of organic sector in the UK as indicated by farmers were:

1) Lack of public understanding of the value of organic product;
2) High price;
3) Supermarket and importing;
4) Weed control;
5) Government support;
6) Cheap food from conventional farms;
7) Profitability;
8) Red tape and paperwork.

Some farmers mentioned different barriers such as: lack of research, labour cost, and availability, the cynicism of the farming press, regulation, and farmers' fear of change. Organic farmers also made additional comments about organic farming system in general. A brief summary of these comments are:

1) Further unplanned expansion would be disaster;
2) GM crops will destroy the confidence of consumer in purity of organic food;
3) Too many conversions will lead to oversupply/low price and organic sector will be like conventional;
4) "I found there is only a minority of people that are prepared to buy quality to look after their own health and well-being";
5) "I would like to think, being organic, would quality one to be farmer assured";
6) Supermarkets need to use more of second grade vegetables that it is more available to more people;
7) Agricultural colleges and universities unwilling to improve their courses;
8) "To succeed in organic farming, the farmer must be committed heart and soul... it is a way of life not a money-making scheme".

5.2 Qualitative data analysis

5.2.1 Organic consumers

The findings of key published surveys about key organic consumers' issues were gathered, compared, presented, and critically analysed in this section.

5.2.1.1. Review of the current surveys. A) The Market Tools Inc.

The Market Tools Inc. conducted a survey of 1,000 people on behalf of the Soil Association in early 2006. The findings of this survey were:

- About 84% of respondents thought organic food was too expensive;
- About 37% of the public (63% of regular organic consumers) agreed with the statement that, "Organic food tends to be more expensive but I think it is a price worth paying."

- About 73% agreed that they would "like to see special low price offers on organic food and drink."
- About 30% of those surveyed (and 40% of regular organic shoppers) agreed that "low-price offers on organic products concern me because I worry about whether the farmer is getting a fair price, while 20% disagree with this statement".

Organic shoppers were asked whether they would prefer to buy a locally grown non-organic or an imported organic product. A clear majority of respondents would prefer to buy local non-organic option. The reason given was a desire to support local producers and reducing 'food miles.'

Health was the main biggest reason given (52%) by those who prefer to buy imported rather than local non-organic produce. However, taste and environment were also important factors (39% each). About 75% believed that an organic diet was a healthier diet and 88% believed organic production is kinder to the environment and wildlife. Three percent disagreed with this statement. About 91% of regular organic shoppers said they believed it was important for the country of origin to be stated on product packaging and 79% of regular organic shoppers agreed, "I like the packaging to tell me about the farm, where a product comes from and/or the people who produced it." Nine out of ten organic consumers interviewed buy organic products in the multiple retailers. Three out of ten organic consumers interviewed buy organic products at farmers' markets. Two out of ten organic consumers interviewed buy organic products at farm shops. About 43% of consumers identified the multiple retailers as their preferred outlet for buying organic products. If all outlets were equally convenient, 52% of organic consumers opted for smaller local suppliers such as greengrocers, butchers, farm shops, farmers' markets, and box schemes. In terms of where consumers buy organic food, shoppers in the East Midlands preferred to buy organic from multiple retailers with 61%. In Wales and the west of England, only 26% preferred multiple retailers. Shoppers in south England and Northern Ireland preferred farmers' markets with 26% and 25% respectively. In Yorkshire, home delivery and box schemes were popular with 8% of respondents.

5.2.1.2 Review of the current surveys. B) The B.R.M.B

This research source was a telephone omnibus survey conducted by the British Research Market Bureau (BRMB) on behalf of Soil Association in February 2005. Representative samples of 1,010 people were asked 'What was important to them when buying food for a meal to serve to family or friends'? The responses were different:

- About 95% said the taste and quality of the food;
- About 57% said low prices were important;
- About 75% said fair prices and wages for farmers and their farm workers;
- About 71% said high animal welfare;
- About 65% said avoiding food growth with pesticides;
- About 63% said encourage wildlife.

These results were consistent across all social classes studied in the survey.

5.2.1.3. Review of the current surveys. C) Taylor Nelson Sofres (T.N.S)

A survey was conducted by T N S in 2003 on a sample of 4,000 adults from across the UK with in-home interviews. The findings of this survey are:

- About 24% of those surveyed indicated that taste was their main motivation for buying organic products and health was the second;
- About 22% of those surveyed indicated that food safety was their main concern;
- About 25% cited price as the main barrier;
- About 18% indicated that they wanted to reduce exposure to pesticides.

The T. N. S data suggested that concerted consumer education has the potential to win the support of more new consumers. When consumers were asked, 'How do you identify organic products?'

- About 52% would look for the word 'Organic' on the label;
- About 11% thinking 'natural' means organic;
- About 15% thinking 'fresh produce' mean organic;
- About 1 in 5 did not know to identify organic food.

5.2.1.4. Review of the current surveys. Findings of Other Surveys

The UK Market research (2003) found that 36% of consumers buying organic foods did so because of health concern. A survey conducted by I.F.S.T (2001) indicated that health and taste were the main reasons for buying organic foods with 46% and 40% respectively. The Soil Association (2000) indicated that one third of the public buy organic because of perceived health benefits 53%, tasting better 43%, and free GM 30% and environmental/animal welfare 25%. Mintel (2003) found one out of three organic consumers is willing to pay a premium for environmentally friendly products. Hallam (2003) indicated that 31% of organic consumers felt that organic food tasted better and 25% felt organic foods are natural. National Farmer Union (2000) alarmed that 70% of British public has no idea what food the farmers in their local area produce. A survey conducted by Anon (2001) concluded that 42% of organic consumers mentioned the cost as the main barriers, 15% availability, 10% less variety, and 4% does not taste any better. Taste, health, and environment are the main motivations and high price is the main obstacles Tesco (2001a). Davies *et al.* (1995) conducted a survey on the purchasers of organic foods in Northern Ireland and indicated that, health, environment and taste were the main motivations for organic purchasers with 70%, 50% and 40% respectively. Availability, price, and lower quality were main reasons for not purchasing organic food.

5.2.1.5 Review of the current surveys. Comparison of published surveys

The motivations and concerns of organic consumers were compared across the above surveys in order to critically assess tensions (Table 15).

Table (15) Consumers' motivations and concerns as indicated by some selected surveys

Survey	Motivations	Barriers
The Market Tools Inc.	Health, taste and environment	High price
The B.R.M.B	Taste, animal welfare, health and wildlife	High price
The T.N.S	Taste and health	High price
The UK Market Research	Health	-
I.F.S.T	Health and taste	-
Soil Association	Health, taste, environment/animal welfare	Price/ availability
Mintel	Environment, animal welfare	-
N.F.U	-	Lack of info.
Anon	-	High price
Tesco	Taste, health and environment	High price
Hallam	Taste and environment	-
Davies	Health, environment and taste	Availability, price and quality

In addition, the above surveys highlighted some other important issues related to organic consumers such as where the consumers would buy organic food, information about the product it self, packaging *etc.*

Consumers will support organic farmers by buying organic products. Consumers prefer to see detailed information about the product to be on the packaging. Education of consumers about organic is suggested to be a key factor in winning more new consumers. Organic consumers in Wales and the Midlands prefer to buy organic food from multiple retailers. These in South England and Northern Ireland prefer to buy organic from farmers' market. In South Yorkshire, box schemes are popular.

5.2.1.6 Motivations and barriers of organic consumers. Perceptions of retailers, alternative outlets and the Soil Association

As noted in the previous chapter interviews were conducted with representatives of food retailers, alternative outlets and the Soil Association. These covered several general issues about organic food production. However, only the information about consumers of organic food will be presented in this section and the rest will be discussed later.

Key people in four multiple retailers in the UK, the managers of selected alternative market outlets (one farmers' market, two organic shops, one farm shop, and one organic cooperative) in South Yorkshire, and representative of the Soil Association were interviewed about the motivations and concerns of organic food consumers. It appears that health concerns, environment protection and taste are key motivations for consumers to buy organic. In terms of barriers, prices and perhaps availability were serious barriers for organic consumers. Here are some quotations from the interviewee about consumers' motivations and barriers: Supermarket One said "... Taste, health concern and environment are key motivations for consumers. Price and availability are their barriers." The representative of the Soil Association said "... I would say health is the main motivation followed by environment protection. High cost is what we always hear from consumers." The manager of Organic Shop One and Two said "... Health is the main motivations and prices still a big problem for consumers." These issues will be discussed in detail in the next chapter. The results of these interviews are summarised in (Table 16).

Table (16) Summary of consumers' motivations and concerns according to perceptions of the interviewee

Category	Perceptions of interviewee
Motivations	Taste, health and environment
Barriers	Price and availability

In addition, there is other important consumer related information gathered during the interviews with the alternative market outlets. This information covered issues such as: Price of the products at these outlets compared with prices at supermarkets, availability of products, consumers' knowledge about organic and more specifically about the concept "eating seasonally", attendance of consumers to the outlets and what factors are important for consumer when buy fresh products. It seems that all representatives of the outlets felt that price was reasonable and sometimes cheaper than supermarkets. However, availability of products still major concern for consumers. Additionally, consumers' knowledge about organic generally, and seasonality more specifically, is still limited. These are some quotations from the representatives of the alternative market outlets: "...Prices at alternative market outlet tend to be as same as the supermarkets and sometimes little bit cheaper. I think availability is one of the major

concerns for consumers. The knowledgeable people about seasonality still a minority." Summary of all this information is presented in Tables, 17.

Table (17) Perceptions of the representatives of selected alternative market outlets about some organic consumer issues.

Consumers' issue	Perceptions of interviewee
Price	The price is same as supermarket and sometimes a little cheaper
Availability of products	Sometimes difficult to find all organic food, (seasonal products)
Consumers' knowledge	No enough education about organic food
Consumers' attendance	It is fine and getting better
Freshness of products	Taste, appearance are the key factors for consumers

5.2.2 Food retailers/supermarkets

Results and analyses of data gathered from four food supermarkets in the UK are presented. The data cover supermarkets' motivations for selling organic food support received by farmers from supermarkets, imports, supply and demand, interrelationships, information *etc.* For more detail, see the transcripts of these interviews in the (Appendix 3). It is important to note that information gathered from supermarkets about organic consumers is not presented in this section, but in the organic consumers' section above.

5.2.2.1 Interview One. Supermarket One

More choice and provision of good quality food to organic consumers seems to be the main stated motivation of Supermarket One. Profitability was stated not to be a priority; "... Profitability is not a priority for us." The representative of Supermarket One said. The main aim of Supermarket One was to encourage and support organic farmers. However, the increased demand for organic food has not been satisfied and supermarkets are trying to satisfy increased demand by importing from overseas. The key drivers for supply and demand were availability of organic food, quality, and financial support for organic food production. It was considered that consumers strongly influence organic supply chains. The supermarket indicated that the contribution of local supply chains (alternative market outlets) is minimal (2%) and without any influence on retailers. The supermarket tries to make everything available with good quality and at competitive prices to keep the consumers coming to their store. The

representative of Supermarket One said: "...We should give our consumers what they want otherwise, the market will go down". In terms of the interrelationships between organic producers, consumers, and supermarkets and its impact on organic farming growth and development, Supermarket One emphasised the importance of such interrelationships as leading to sustainability. This supermarket considered that communication with consumers is a key factor. In this respect, they try to influence consumers to understand the reasons for the relatively high prices of organic food.

Some kinds of vegetables and meat were locally sourced, and some were still imported (Table 18). This supermarket suggested there was no conflict between imports and local production. They stated that the reasons for continued importing are the small amount of local production and the preference of consumers to buy imported foods: "... We import organic food because our consumers like to buy it." However, this supermarket gave a priority to the locally produced products when available.

Table (18) Supermarket 1: Amount of organic products soured locally (%).

Product	Local production (%)
Salad	40%
Cucumber	40%
Pepper	20%
Tomatoes	40%
Peas and Beans	20%
Broccoli	40%
Cabbage	50%
Carrot	80%
Coflower	45%
Mushroom	100%
Onion	100%
Potato	60%
Meat (pork)	39%
Beef	37%
Lamb	90%

5.2.2.2 Interview Two. Supermarket Two

Offering consumers a choice of easily identifiable, good quality organic options with better taste was stated to be the main motivation for Supermarket Two. They claimed to be 'never beaten on price' since profitability is supposedly not priority for them. They support organic farmers by providing listening conferences, increased marketing budget, introduction of cost-plus schemes, paying fair prices, and working with greater numbers of producers and growers. These were the main aims stated by the representative of Supermarket Two. However, organic producers felt that supermarkets

do not support them and they seem dissatisfied with their relationship with supermarkets. Demand has not yet been met because of the lack of a supply-base to deliver the volume needed. They have identified gaps between supply and demand, and having good range of organic products on the shelf is the major ways to satisfying demand. Supply may be driven by availability of organic land and organic stock and consumers influence it. Demand seems to be driven by price, availability and understanding. People may prefer to buy organic food directly from local distribution channels but the contribution of these channels in the home market is still very small. Cooperation or good interrelationships between organic producers, consumers, and retailers are very important.

They suggested that there is lack of understanding amongst consumers of what organic food is and so they need to be educated: "... Consumers need to be educated about organic." Supermarket Two indicated that they try to convince consumers to buy organic by using different kinds of media. About 70-80% of organic food on the shelves of Supermarket Two was imported from outside the UK. The representative argued that there is no conflict between import and local production and the reason for continue importing is that, import product is cheaper than local products.

5.2.2.3 Interview three. Supermarket Three

Consumer demand and broader choice are stated as the main motivations for this supermarket. Encouraging and supporting organic farmers by increasing the level of British-sourced organic food, flexibility in accepting products, paying farmers fair prices and encouraging people to buy organic are the major aims of the supermarket operation in the organic sector. For example, Supermarket Three indicated that "... 100% of organic chicken, beef, eggs, lamb and milk come from British farms." Demand for organic food has not been satisfied and they suggested that importing more volume is the way to satisfy demand. Health, taste, and 'Britishness' are the key drivers for supply and demand for UK produced organic food. The representative noted that the contribution of local supply chains in the organic home market was estimated to be 33% during 2004 with supermarkets at 75%.

Interrelationships between organic producers, consumers, and supermarkets are very important and may lead to increased land in conversion. Conducting regular conferences

with producers and working closely with suppliers to deliver what they need and provide unparalleled services to consumers are the important objectives for this supermarket. Taste, fat content, shelf life, good eating, and appearance are required: "...We have long tradition of working closely with our suppliers to build mutually beneficial relationships." The supermarket sets grades and specifications to be met by producers. In order to achieve this, about 67% of indigenous products in the store come from British farms. Products, which cannot grow here like banana and mango, were imported. Consumers like to buy locally produced food and the supermarket tries to maintain the UK supply base.

5.2.2.4 Interview four. Supermarket Four

The motivation stated for this supermarket was to be the leading local convenience retailer. Providing consumers with their core shopping needs including organics is part of that aspiration. Supporting and encouraging organic farmers by building long-term supplier relationships, and paying them fair prices are also stated as major aims for this supermarket in developing its operations. Demand has not been satisfied and the representative suggested that consumers have the biggest impact on demand and thought this influence the supply sector. The representative of Supermarket Four indicated that "Producers' struggle to meet the increased demand and it was indicated that the supermarket's responsibility is to ensure 100% availability of the products throughout the year." Local distribution channels offer consumers alternative purchasing routes and help increase awareness on a localised basis. Developing long-term supplier relationships is a major strategy because it may leads to sustainable land conversion programmes for future supply. Because of the limited UK supply and the amount of land available in organic, about 70% of the organic products in the store has been imported. Support and purchase of product from the UK producers is a priority stated by the representative.

It seems there is some consistency among supermarkets about several issues such as motivation, support organic farmers, supply and demand and interrelationships between key stakeholders. A summary of the perceptions of the representatives of four supermarkets are illustrated in Table 19. These issues will be discussed in detail in the following chapter.

Table (19) Perceptions of supermarkets' representatives about organic food marketing in the UK

Supermarket	Motivation	Farmers' support	Supply/demand	Local supply chain	Interrelationships	Imports
One	Broad choice	Running research and pays fair prices	Not satisfied. It is consumer driven	Limited contribution in the home market	Very important. May lead to sustainability	Used to satisfy demand. Local production not enough
Two	Driving choice agenda	Conferences, increased marketing budget and fair prices	Not satisfied. Driven by availability and prices	Small contribution in the home market	Very important	70-80% imported because it is cheaper
Three	Consumer demand	Increase level of British organic food and paying fair prices	Not satisfied and import is the way for satisfy demand	Small contribution in the home market (33%)	Very important, may lead to more land in conversion	67% of indigenous products come from British farms
Four	Consumer demand	Building long term supplier relationship and paying fair prices	Not satisfied, it is consumer driven	Offer consumers alternative purchasing route	Very important, may lead to sustainability	70% of organic products in the store has been imported
Conclusion	More choice and broad appeal to consumers seem to be the main motivation for supermarkets	It appears that support and encourage organic producers is main aims of supermarkets	Increased demand for organic food seems not satisfied and importation is the only option	The contribution of local distribution channels in the market seems limited. This is may be a serious barrier for supermarkets	It is clear that the interrelationships between stakeholders are suggested as important issues in the growth and development of organic sector	It appears that significant amount of organic food still imported and that is probably due to the limited local supply base

5.2.2.5 Interview with the Soil Association

The Soil Association indicated that consumer demand, the maintenance of market share, competition, and profit are major motivations for retailers. It was suggested that supporting organic farmers was not an aim of the main food retailers in the UK. The representative of the Soil Association said, "... Supermarket's interest for selling organic not for health or animal welfare or environment, they do it for profit." However, supermarkets may provide support in some ways such as increased the share of British sourced produce to 67%. The representative of the Soil Association felt that retailers do not pay the farmer fair prices. He also added, "...We have seen a decline in farm gate value of organic." It was further suggested that big retailers prefer to deal with cooperatives and they change their suppliers and contracts 'daily' to get the best price deal: "it is profit" that is the main driver. The increased UK demand for most organic food has not been satisfied. The domestic production does now manage to meet demand for some products such as lamb and butter (100%). However, the main reason for not satisfying the increased demand as seen by the Soil Association is that, "...We do not have local production to meet the increased demand." The Soil Association believe that health, environment, and animal welfare were the biggest drivers for supply and demand of UK produced organic food. The representative of the Soil Association suggested that producers, retailers, and consumers are shaping the supply chains and their development in the UK organic food market place.

It was further indicated that local distribution channels make important contributions to the home market for organic. About 12% of organic products eaten in the UK in 2005 were sold directly through local distribution channels. It seems that direct sale builds a trusting relationship with consumers. The Soil Association encourages direct sale to give people alternatives to the supermarkets and bigger share for the independent sector. The representative said Interrelationships are essential and must be strong and based on trust. This definitely has a positive impact on organic farming through maintaining organic food consumption, bringing in more converted land, and expanding local production. In 2005, about 50% of overall of organic food in the UK was imported. Furthermore, the main strategies of the Soil Association are to engage consumers to eat seasonally. Even though people prefer local products, the available local production is not enough. The Soil Association believes that the conflict between importing and local production exists and will continue until the consumers are educated about seasonality.

Supermarkets' motivations and aims, together with supply and demand issues and interrelationships are presented as assessed by the representative of the Soil Association in Table 20. Full details are in (Appendix 4).

Table (20) The Soil Association: Results of an interviews with key player about organic food marketing in the UK

Category	Perception of the representative of the Soil Association
Motivations	consumer demand; maintain market share, competition and profit
Farmers' support	Supporting organic farmers is not an aim of the main food retailers
Supply/demand	The huge demand for most organic food is not been satisfied
Local supply chain	Local supply chains have an important role in the home market
Interrelationships	Interrelationships are essential. It have a positive impact on OFS
Imports	Import still continuing due to lack of enough local products

5.2.3 Alternative market outlets

In this section, results and analyses of data gathered from five alternative market outlets in South Yorkshire are presented. The data cover outlets' motivations for selling organic food, imports, supply and demand, interrelationships, prices *etc.* For more detail, see the transcripts of these interviews (Appendix 5). It is also important to note that not all data gathered from these outlets about organic consumers are presented in this section. They are given in detail in the organic consumers' section.

5.2.3.1 Interview the organiser of a Farmers' Market

Vegetables and fruit are the main organic product sold in this farmers' market. However, the organiser of the Farmers' Market said, "...We still have problem with those two criteria because it is very seasonal." Organic eggs, chicken, home-made products and baked products are also sold here. Farmers are the major suppliers for these markets. This is may be good opportunities for producers to access the organic market. Providing a good deal for the customer, working for themselves, and control of their own destiny are the key motivations for organic producers in the Farmers' Market. Local authorities provide some support to the market such as locations, renting storages, and general help and encouragement. The interviewee felt that the supermarkets have a stranglehold of production and control the wider market. The representative of Farmers' Market added:

"... This is make it very difficult for independent producers to buy it and very difficult for them to fight against the wealth of supermarkets."

Imported product is very cheap and of good quality compared with the products sold here in the market. The products are for example sometimes not in the precise shape that the supermarkets require. This representative felt that local supply chains are significant factors in developing organic markets. They give people an opportunity to choose and to get fresh products with better quality at good prices. Interrelationships between producers, consumers, and retailers are a key issue in building trust between all partners. They considered that the current interrelationships are not so good but that will get better. It will have positive effect on the organic food market. Producers cannot meet the grade and specification of supermarkets, and they prefer to sell their products directly to consumers. The results of the interview with the organiser of farmers' market are summarised in Table 21

Table (21). Farmers' market: Results of an interview with the market organiser about organic food marketing in the UK.

Category	Perceptions of the organiser of the Farmers' Market
Types of products	Vegetables, fruits, egg, chicken, and baker
Suppliers	Farmers and homes
Motivations	Good deal, working on their economy and control their destiny
Support	There is support from local authorities
Imports	Very cheap with good quality
Local supply chains	It is significant factors in developing of organic market
Interrelationships	Key issue in building trust relationships between all partners
Direct sales	Producers cannot meet the specification of supermarkets. They sell their products directly to consumers

5.2.3.2 Interview with the manager of Organic Shop One

Vegetables, fruits, products for vegetarian and ethically-sound products such as coffee and chocolates are the main products sold in the Organic Shop 1. Independent Farmers, farmers' cooperatives and wholesalers are its major suppliers. The motivations for the organic shop are personal interest and good business. In terms of financial support, the manager of organic shop 1 suggested that there was no support provided. Importation is a very complicated issue, there is huge demand and local production is not enough. The

manager added "...I think farmers need to be aware of the increased demand for organic food and they need to work hard to satisfy it." Supermarkets look to doing good business rather than looking for something else. For example the manager of Organic Shop One said "...British tomatoes are available but imported tomatoes are very cheap." Local supply chain has a very important contribution in the home market. It gives small producers the chance to get access to the market place. The manager said "...For instant box scheme now is working in favour of producers. We are struggle in this country comparing to other countries like Italy or France because the consumers in this country are less understanding the appreciation of their own home-grown produce." He also felt that an interrelationship between producers, consumers and retailers is very important in the development of organic farming. Producers cannot meet the grades and specification of supermarkets and the direct sale is an alternative route for producers to sell their products. The perceptions of the manager of Organic Shop 1 about organic food marketing are illustrated in Table 22.

Table (22). Organic shop One: Results of an interview with the organic shop manager about organic food marketing in the UK.

Category	Perceptions of the manager of Organic Shop One
Types of products	Vegetables, fruits, ethical products (coffee and chocolates)
Suppliers	Farmers, farmers' co-op, and wholesalers
Motivations	Personal interest and good business
Support	No support provided
Imports	It is complicated issue. Increase demand. Local production is small
Local supply chains	The contribution is very important.
Interrelationships	Very important in developing organic farming system
Direct sales	Producers cannot meet the specification of supermarkets. Direct sale is an alternative route for producers to sell their products.

5.2.3.3 Interview with the manager of Organic Shop 2

Vegetables, fruits, milk, grains, pulses and 'in-jar, foods' are the main organic products sold in Organic Shop 2. Farmers, wholefoods, and manufactures are the major suppliers for this shop. Priority given to provision of locally produced foods and then imported foods. They aim to provide healthy food, protect the environment, minimise food

mileage, and make money. These are the major motivations for the organic shop. The manager of Organic Shop Two indicated that there is some support from the Soil Association "...We receive support from the Soil Association in form of information and advice in form of information and advice." However, improving the local market is a very big challenge especially with the small amount of producers currently available and the limited extent of locally produced food. Increased demand and availability are the major reasons for imports. Imports seem the only way to satisfy demand "...We need local products, we need to see all products is sourced locally but with small amount of producers currently available, it is a big challenge for improving local market." The manager of Organic Shop Two also indicated that the contribution of local distribution channels in the home market was small. It was estimated to be about 30%. It was believed that interrelationships between stakeholders were very important in improving the market, and that this was especially so for organic shops. Producers prefer to sell their products directly to consumers because of the small amounts of organic food produced, consistency of the market for their production, and the problems they experience with supermarket specifications. Table 23 summarise the results of an interview with the manager of Organic Shop Two.

Table (23). Organic shop Two: Results of an interview with the shop manager about organic food marketing in the UK.

Category	Perceptions of the manager of Organic Shop Two
Types of products	Vegetables, fruits, milk, grains and in-jar foods
Suppliers	Farmers, wholefoods and manufactures
Motivations	Health, environment and minimise food mileage
Support	Some support from the Soil Association
Imports	Still needed to satisfy demand
Local supply chains	The contribution of local distribution channels is small
Interrelationships	Very important especially for organic shops
Direct sales	Small amount of production, consistency and supermarket's specifications are the major reasons for direct sale

5.2.3.4 Interview with the manager of a Farm Shop

The main organic products sold in the farm shop are vegetables, fruits, baking, and lamb. Issues of people's health, environmental protection, and of course money motivate

the farm shop owner. The Soil Association provides support through an assessed inspection. The import strategy adopted by supermarkets is not good for producers or the home market. The farm shop owner said "...The supermarkets keep importing because it is cheap." However, local production is not enough to meet demand and supermarkets need to import more products to meet this demand. There is a significant contribution of the local distribution channels to the home market. Again, it was stated that the interrelationships between producers, consumers, and retailers were very important in the development of organic farming. The perception of the owner of the organic farm shop is presented in Table 24.

Table (24). Farm shop: Results of an interview with the owner of organic farm shop about organic food marketing in the UK.

Category	Perceptions of the owner of Organic Farm Shop
Types of products	Vegetables, fruits and baker
Motivations	Health and environmental protection
Support	Support from the Soil Association
Imports	Import strategy is not good but local production is not enough
Local supply chains	There is significant contribution in the market
Interrelationships	It is very important in development of organic farming system.

5.2.3.5 Interview with the manager of an organic co-operative

This organic co-operative sold a lot of organic food and vegetables, including cereals, legumes, bread, seeds, herbs, drinks, snacks *etc.* The organic co-operative tries to offer organic products that are not available in supermarket such as household and natural care products. Some of these are produced locally and some imported. Health, environment, and ethical issues were the main motivations for the owner of the organic co-operative store. They provide alternative shopping to supermarkets. The manager of organic cooperative said "...We developed this store to provide alternative shopping for consumers especially the ethics and vegetarian." Farmers, wholesalers, and other businesses are the major suppliers to the organic co-operative store. The organic co-operative does not receive financial support from anywhere. "I think it is a shame if you look to what we are providing; we pay a lot of money for certification." the manager says.

The amount of organic food which is currently imported seems too much and the manager of organic cooperative said "...*There is really shock why supermarkets import this amount while we can produce some of them here, it is really horrible.*" The import strategy may have a negative impact on the market. The contribution of the local distribution channels in the home market is good and getting better. However, supermarkets dominate and control the market. The interrelationship is very important since it will leads to more understanding of the concept of organic food and that is will leads to the improvement of the home market. The organic co-operative store deals directly with consumers and through delivery box scheme. They feel that many producers prefer to sell their products directly to consumers or to the small shops. The perceptions of the manager of organic cooperative are presented in Table 25.

Table (25). Organic co-operative: Results of an interview with the store manager about organic food marketing in the UK.

Category	Perceptions of the manager of Organic co-operative
Types of products	Household and natural care products, Vegetables and other product
Suppliers	Farmers, wholesalers and companies
Motivations	Health and environmental protection and ethical issues
Support	No support received from any where
Imports	Import is hireable. It is profitability
Local supply chains	It is really good and getting better
Interrelationships	Important since it will leads to market improvement.
Direct sale	Deal directly with consumers and through delivery box scheme

CHAPTER SIX

6. DISCUSSION

The research has highlighted some very interesting and exciting aspects of the interrelationships between key stakeholders. It has drawn out some critical factors in terms of how the interactions and perhaps partnerships may influence the development of organic farming in the UK. The intention has been to develop the study through a mixed methods approach and to triangulate findings from different aspects of the work. The study has been within strict parameters or boundaries in order to make the work feasible, achievable, and relevant. So for example, the focus is fully on the organic sector. Farmers who had not converted to organic were not interviewed or questioned; this is perhaps an area for future research. To go beyond these strict limits would have demanded time and resources that were not available, and furthermore, would have deflected the study from its main purpose. This is not intended to suggest that this other aspects to this field are not relevant or of merit, but simply that in this study they were not the main thrust of the work.

This chapter considers the overall findings of the research in the context of the literature discussed in Chapter Two. This chapter is in three major parts. The first presents discussion of quantitative findings and issues arising from analysing quantitative data. The second presents the discussion of qualitative findings and issues arising from analysing qualitative data. The third presents the interrelationships and triangulation where the key findings are linked to the research conceptual model to test the impacts of interrelationships on organic farming development.

6.1 Part One. Discussion of quantitative findings and issues arising

In this part, the results and findings from analysing farmers' responses are considered in four sections. These cover general information about farmers and farms, farmers' motivations and concerns, farmers' information and knowledge, and the open-ended questions where farmers present their own views about the system as whole.

6.1.1 Organic farmers. Discussion of descriptive analysis

6.1.1.1 Section One. General information about farmers and farms

The majority of organic farmers in the sample are in the age of 40-50 years old. This indicates that organic farming is attracting younger people into farming compared to the farming industry as a whole. This finding is in consistence with a study conducted by the Soil Association (2006c) which revealed that on average, organic farmers in the UK are seven years younger than the non-organic farmers, whose average age is 56.

The majority of the organic farmers sampled in the studied regions were male. This result differed from Bur *et al.* (1999). They found a higher proportion of female growers among the organic horticulturists and indicated that gender may vary between farm unit types. However, in this research, the majority of growers were livestock farmers, and males predominate. This may indicated that conversion to livestock is more easily compared to other types of farms (horticulture, mixed *etc.*). This is consistent with Midmore *et al.* (2001) who concluded that 'the more specialised and intensive system, the more difficult it is to convert.' The results also showed that high percentage of farmers adopted organic production without any formal training in the field. This finding was confirmed through follow-up telephone interviews with selected organic farmers. They indicated that such training was not available, and if available, then farmers have to travel, paying for this and for the courses themselves. It appears that lacks of availability combined with cost are barriers to training

Most farmers responded that their financial situation before conversion was satisfactory. This is indicates that profits and business were not necessarily the major reasons for conversion. Looking at the farmers' motivations section, the most important motivation for conversion is the 'environment'. It seems that most farmers were more concerned about the environment rather than just profitability. Whole-farm conversion is the preferred approach for most organic farmers. This is possibly due to the often small size of these farms which makes conversion easier and partial conversion unviable.

6.1.1.2 Section Two. Farmers' motivations and concerns

Organic farmers ranked environment, job satisfaction, and health benefits as their major motivations for conversion. This is supported by other studies (Vine and Bateman, 1981; Ashmole, 1993; Hermansen, 2003; Regouin, 2003; McEachern and Willock, 2004). However, Newman *et al.* (1990) and Lampkin and Measures (1995) had different findings, with farmers converting to organic mainly for economic reasons. A high proportion of organic farmers noted other motivations such as high demand for organic food, direct marketing opportunities, better animal welfare, and ethical issues as important. This indicates that farmers adopt organic approaches for a range of different motivations. These are based on the current situation of organic farming where farmers are aware that the marketplace has limited suppliers of organic food and there are also new approaches to direct marketing (discussed later). The organic farmers were asked about the most important motivation, which influenced their decision to convert. They emphasised that the 'environment' was the key. This may suggest that farmers are becoming more aware and knowledgeable about environmental conservation and so the healthy environment is their first priority.

Organic farmers were worried about a number of issues (Figures 19 and 20). These concerns were high before conversion and gradually decreased after conversion. Midmore *et al.* (2001) also identified some of these concerns. It may be that organic farmers had general concerns or fears because they were adopting a new system, and were worried whether this would succeed. There were other important reasons for farmers having concerns before conversion. Most farmers adopted the system without any formal training about organic agriculture (see Figure 13) and they indicated that they encountered some difficulties in getting information and advice. Farmers also indicated that organic farming systems demanded higher levels of commitment and knowledge (McEachern and Willock, 2004). All these may be reasons why farmers were worried before conversion to organic. To clarify these issues the findings were analysed to compare farmers' concerns before and after conversion (Table 8). The results showed that for most variables farmers were less worried after conversion. There were two main variables where farmers were still worried after conversion. These were low profits and reduced operational freedom due to the need to comply with rigorous criteria during inspections. With reference to the literature, organic farmers indicated a lack of confidence in the rate of development of markets. The supermarkets have

dominated organic markets and most organic products sold in the market were imported (Soil Association, 2001a and 2005; Tate, 1991; Hallam, 2003; Soil Association, 2005). All this means farmers are still concerned about business and profits. Farmers also mentioned the high cost of certification, paperwork and of the regular inspections.

Most current organic marketing channels do not seem important for most organic farmers. This was especially in relation to supermarkets, processing industries and wholesalers. Organic farmers prefer to sell their products through alternative market outlets such as farm shops, farmers' markets, and organic co-operatives (Figure 21). Additionally, organic farmers mentioned other channels such as via other farmers and direct to restaurants. This indicates that these farmers prefer to not deal with supermarkets but favour direct sales to consumers. This is probably due to the supposed unfair prices paid by supermarkets, the small amount of product by each unit, and supermarkets' grades and specifications. Organic farmers may find the latter difficult to meet. This agrees with other studies; (Lobley *et al.*, 2005; Soil Association, 2005; Tate, 1991; and Steele, 1996). Additionally, farmers indicated that conversion to organic did not result in any significant selling of food processing on their farms. Again this may be due to the small amounts of production from many individual units.

6.1.1.3 Section Three. Information and knowledge

A high proportion of farmers indicated that their knowledge about organic agriculture before conversion was sufficient. This suggests the idea that farmers' knowledge about organic may have influenced their decision to convert. However, these results conflict with these of Midmore *et al.* (2001) who indicated that farmers have difficulties in getting high quality information about organic from the commonly available sources. In addition, farmers indicated that they mainly got their knowledge from other farmers who were already organic. In terms of the importance of the currently available information for organic farmers, most sources were not considered important for the farmers sampled. ELM Farm Research Centre, the Soil Association, and other organic farmers seem to be important information-sources. However, a high percentage of the sampled organic farmers indicated that the access to information was difficult. Because of this, they turned to other sources of information for help, advice, and information. (Examples of these alternative sources are listed in the Results Section). This finding is of interest, so to gain further insight some farmers were contacted for more clarification.

They mentioned the lack of such information in an appropriate and convenient form. For example, when farmers were asked whether they attended listening conferences provided for them by the Soil Association and the supermarkets, they indicated that these conferences were not available. If they are available, they also need to travel to attend these conferences and they need to pay for travelling, attendance and accommodation. Another farmer says "...At my age, the natural first choice for information was not the computer but rather books, magazines, articles, word of mouth, and particularly the telephone. Internet is a quicker option now but you need to do the work to become aware of what is available or possible." Other farmers found it difficult to get information from agencies like DEFRA, ADAS, and MAFF at the beginning of the conversion process. The farmer says "...When we started there was no help from anywhere, there wasn't any structure after all organic as you see it now has only been like this since 1996, you cannot imagine what it was like when bodies like DEFRA or as it used to be ADAS and MAFF would deny that organic had any future." The farmer also added, "...Now it is easy to get information from HDRA, the Soil Association, even DEFRA."

It was interesting to see that farmers were willing to convert even if there was no grant-aid available. This is indicates that for the some farmers a grant was not an issue. (Although it was perhaps a barrier to those who did not convert). They took their decision to convert based on their personal motivations. However, this disagreed with other studies (Holden, 2001; Vizoso, 2001; Younie, 2003; Mintel, 2000). These studies indicated that grant-aid from DEFRA was a key factor affecting conventional farmers to convert. They also suggested that organic farmers might drop out of organic farming if grants were not available after conversion. Despite the lack of funding for conversion (Mintel, 2000), large numbers of organic farmers indicated in this study that they never regretted converting to organic. Furthermore, they were not seriously considering going back to conventional. This reflects the high commitment from farmers to the philosophy and concepts of organic farming, and the potential for a market niche.

6.1.1.4 Section Four. Open-ended questions

Organic farmers in the sample were asked about the most important barrier(s) to organic farming growth and development. As indicated in the results, organic farmers ranked several barriers: public education, high prices for organic products and supermarket

strategies (especially importing cheap overseas products). Several previous studies highlighted these barriers (Pedersen, 2003; Soil Association, 2001a; T.N.S., 2003; Harper and Henson, 2001; Soil Association, 2005; M.O.R.I, 1999). Farmers mentioned other barriers such as weed control, government support, excessive paperwork, lack of research, low profitability levels *etc.* This suggests that farmers are now aware of the major obstacles and barriers to growth in the UK organic farming sector. To further grow the organic sector it is suggested that these barriers need to be taken into consideration by all stakeholders involved in organic farming in Britain.

At the end of the questionnaire, farmers were asked if they had any additional comments about organic farming in general. A list of the most frequent comments was presented in the previous chapter. By looking at farmers' comments, it is concluded that farmers are worried about unplanned expansion of organic agriculture, because it may lead to over-supply of organic products. There will then be no difference between organic and conventional (the organic product may lose value and quality). This is may indicate a new concern that extensive conversion could lead to degradation of organic food quality, or more realistically perhaps, a loss of added value to the producer. Another point addressed by organic farmers was about public education. Organic farmers believed that the public are not sufficiently educated about the values of organic food. They consider that major barriers to the growth and development of organic farming as discussed earlier. Farmers also criticised the strategies of agricultural colleges and universities for being unwilling to improve their courses about organic food production. A final important point given by organic farmers was about supermarkets and their policies. Farmers indicated that supermarkets should change their strategies in the marketing of organic products. They also challenged the grades and specifications which farmers find difficult to meet. For example, farmers mentioned that supermarkets could use second-grade vegetables available to more people at lower and more reasonable prices. However, this seems to overlook the fact that organic foods are more expensive.

6.1.2 Farmers' questionnaires. Relational analysis

Further analysis was done to investigate the correlation / association between selected variables. This shows interesting associations. The significant negative correlation between farmers' motivations and their concerns before conversion (P=0.017) indicates

that farmers motivations were negatively affected by their concerns. This concern is probably due to the limited availability of information and advice, financial support, marketing and profits. Therefore, in the early stage of conversion motivations and concerns were significantly negative correlated. This means as farmers become more concerned, their motivations toward organic significantly decreased. However, after conversion the association was still negative but not significant. This suggests that as farmers continue in organic production, their concerns gradually decreased and consequently their motivations increased. The correlation between farmers' motivations and the difficulties of getting access to information was also significant and negative. This is indicates that as getting information become more difficult (discussed earlier) farmers may become less motivated toward conversion. Significant negative correlation was detected between farmers' knowledge about organic agriculture and their concerns before and after conversion. It seems that farmers' concerns are depends on how knowledgeable they are. The more knowledge and relevant information about organic farming they have, then the less are their worries. For example, when their access to information was difficult farmers were very concerned about finding markets for their products, and that conversion to organic looked complicated. This is clear from the positive significant association between access to information, and to both finding a market, and the complexity of organic agriculture. Additionally, because farmers feel the organic approach is very complex for them the overall concerns before and after conversion are still high.

There was a significant positive correlation between organic farming development and the support and encouragement received by organic farmers. This is an indication that the growth and development of organic farming may depend on support. British organic farmers received this aid from government, supermarkets, consumers, and other agencies. There is also a significant positive correlation between organic farming development and amount of locally produced food, and amount of organic food consumption. This suggests that organic farming development may depend on how much local organic food produced and how much is consumed. At the same time, the amounts of local product, and of organic food consumption, were also positively correlated. Such correlations may reflect the importance of increased amounts of local products. That may justify prices, decrease food mileage, and maintain the environment (Soil Association pers. comm.) and consequently encourage more consumers to buy organic food.

6.1.3 Farmers' questionnaires. Significance testing

By testing the relationships between farmers' motivations, farmers' concerns, and farmers' information, the interactions noted below were highlighted. Farmers adopted organic farming for a variety of different motivations. Some farmers adopted it environmental reasons, some for health benefits, profits, or lifestyle. It could be concluded that there were significant differences among farmers in terms of their motivation. These results agree with other studies (Holden, 2001; Vizoso, 2001; Soil Association, 2000; Dabbert, 2003; Newman *et al.*, 1990; Morgan and Murdoch, 2000; Schoon and Grotenhuis, 2000) which concluded that the farmers' motivations towards conversion varied. However, the 'environment' was the most important motivation noted by high proportion of organic farmers (Figure 18). This is an indication that farmers are concerned about the environment and are highly motivated towards conservation.

With regard to farmers' concerns before conversion, organic farmers seem to have the same concerns (the variation was not significant at 0.01 probability level) about complexity of organic food production and finding market (Table 12). As indicated earlier in this chapter, that most farmers adopted organic farming without formal training and their access to information and advice (Midmore *et al.*, 2001) was difficult. This is may be the reason why farmers still find the system complex. In addition, farmers find it difficult to obtain markets for their products due to the small amounts they produce, supermarkets' grades and specifications, and the supermarkets' import strategy (Steele, 1996; Tate, 1991; Soil Association, 2001a). These factors combine to make farmers concerned about marketing their products. For the other variables, the differences between farmers were significant at 0.01 probability level, indicating that farmers' concerns vary.

The variation amongst farmers after conversion was not significant for the 'complexity of organic food production'. This suggests that the farmers have the same concerns about the complexity of organic food production. Additionally, most farmers still consider the system complex for them even after conversion but other variables gradually decreased. The differences among farmers for the rest of variables (after conversions) were significant at 0.01 probability level. The farmers' opinions of the importance of currently available sources of information were assessed (Table 14). It seems that the differences among farmers regarding the importance of these sources

were significant at (P = 0.01). This is an indication that some farmers consider these sources of information were not important to them, some other find it useful. Here is a summary of key finding from farmers' questionnaires:

- Farmers ranked environment, job satisfaction and health benefits as their major motivations toward conversion
- Organic farmers were concerned about low profits, access to information, complexity of organic production, and registration costs and inspection process. However, the major concern for organic farmers was lack of public education about organic products
- The available sources of information were not important for high proportion of organic farmers. Organic farmers seek information and advices from other sources such as; other farmers, friends, other organisations (OMSCO and HDRA). Farmers also found the accessibility to this information was difficult
- Farmers' concern was highly associated with farmers' motivations and farmers' accessibility to the current available information
- In general, there were significant differences among farmers in terms of some key variables (motivations, concerns and information)
- There was a significant positive correlation between organic farming development and amount of locally produced food and amount of organic food consumption
- Organic farmers emphasized the importance of public education about organic, conversion to organic must be pre-planned and supermarkets need to change their strategies to be more supportive to organic farmers

6.2 Part Two. Discussion of qualitative findings and issues arising

In this part, the results and findings from the data-analysis of organic consumers are discussed. This information includes consumers' motivations, barriers to the buying of organic foods, and knowledge about organic food production. The results of interviews with the representatives of four multiple retailers, the Soil Association and the alternative market outlets relating to consumers are also discussed.

6.2.1 Organic consumers

6.2.1.1 Consumers' motivations

Previous surveys and interviews with retailers, the Soil Association and the alternative market outlets (Section 5.2.1), revealed that health benefits, environmental protection, and taste are frequently mentioned by consumers. This supported by other studies (Sylvander, 1999; Makatouni, 2001; Banks and Marsden, 2001; McEachern and Willock, 2004; Makatouni, 2002). It seems that health benefits are a major driver for consumers, presumably as a consequence of consumers' concerns about food

contamination with pesticides under conventional farming. Other major food scares during the last few years may influence consumers' concerns. Additionally, people feel that organic food is more 'natural' and does not contain genetically modified ingredients (Hallam, 2003). However, there is no scientific evidence that organic food is healthier than conventional food (Honkanen *et al.*, 2006), but this is something that is difficult to prove or disprove.

Environmental protection is an important issue for organic consumers and they are willing to pay for organic food because of its claims to be environmentally friendly (Mintel, 2003). Perceptions of the intensive use of pesticides, pollution (including radiation), and contamination of ground water, as well as the negative impacts on animals and wildlife (Soil Association, 2000), may be drivers for organic food purchases. Bartram and Perkins (2003) suggested that organic farming had positive impacts on different taxonomic groups and individual wildlife species, and that pollution was reduced. There are counter arguments to this.

Taste and quality seem to be more important than price for some consumers (Soil Association, 2005). Organic consumers look to taste and quality from different perspectives (taste, smell and appearance), and it seems these become major drivers for buying organic. Interestingly of course, the supermarkets regard 'appearance' as a premium marker of 'quality', and their consumers are strongly influenced by this. However, other consumers consider nutrient content, absence of harmful substances or GMOs as quality characteristics and these become their motives for purchase (Torjusen *et al.*, 2001). Animal welfare and other ethical issues were indicated as motivations for some consumers in surveys and in the literature. For example, some consumers are concerned about quality of life for farm animals because they believe that an animal's life influences human health (Makatouni, 2001). In addition, it also appears that 'Fair Trade' and memories from the past are also motives for purchase with some consumers. Their buying behaviour is influenced by the environment and by social influences. It seems that animal welfare and ethical reasons are important motivations for some consumers. For these, environmental degradation, GM crops, and impacts on animal welfare and human health are the main ethical reasons for purchasing organic food.

6.2.1.2 Consumers' barriers

For consumers the information gathered suggested that prices and perhaps availability were serious barriers for organic consumers. Similar results were found by other studies (Makatouni, 2001; Mintel, 1999; Soil Association, 2000). In order to discuss these findings, which appear consistent across previous surveys and studies, the reasons behind the high costs of organic food need to be considered. Furthermore, consumers' knowledge about organic food production needs to be clarified and assessed. There is also the important question of whether improved knowledge would really make a difference; for many consumers it probably would not since the British public expect to buy cheap food.

It is suggested that the main reasons for the high price for organic food are lower yield, cost of labour, and the costs of inspection and certification (European Action Plan, 2004). Furthermore, production costs are not the only reason behind high prices of organic products. There are other hidden costs that the consumers need to know; avoidance of water and other environmental pollution are major issues in costs. The market information manager at the Soil Association said "...About £2.5 million per year is spent just for cleaning up the soil". It seems that consumers may not have enough information about what organic is about, how it is produced, and the reasons behind its high prices. The interrelationships and information flow between the key players in organic farming is still not happening. This may be a main reason for the slow development of organic sector in the UK compared with other European countries such as Germany and Italy (Soil Association, 2006a). Consumers cited lack of availability, low trust in food industries, and lack of consistency in quality of organic food as other barriers. As indicated by Makatouni (2001), consumers seem not trust the nutritional information provided to them by supermarkets, government, and other official organisations. They also consider the way the organic food is displayed at supermarkets, and how organic food is identified as barriers. Supermarkets, producers and other market outlets can develop strategies to minimise these obstacles. This may encourage more consumers, and increase organic food consumption. Consequently, this may lead to development of organic home market. For many consumers though, high prices if they remain will stay as a barrier.

According to the reviewed literature and information gathered from previous surveys, organic consumers seem to source their information from NGOs, labels, media and friends. However, there was a lack of information about the relative importance of organic food production. For example, consumers felt confused about some organic terminology such as organic, biological and natural. This type of lack in knowledge seems to be another barrier, which may negatively affect organic food consumption. In addition, consumers like to support organic farmers by paying them fair prices and they like the information about organic to be on the packaging. Interestingly, the shopping habitats of organic consumers in the UK are different from region to region. For examples, farmers' markets are the preferred place to shop for consumers in southern England and Northern Ireland. Consumers in Wales and Midlands normally shop at supermarkets, whilst those in South Yorkshire prefer box schemes. This is an important point worth for consideration by key players in organic farming if they wish to drive the sector forward. So perhaps producers in South Yorkshire should emphasise box scheme option, and in Wales and the Midlands supermarkets should minimise barriers for shopping in supermarkets. Similarly, in southern England and Northern Ireland farmers' markets should be supported and maintained. Alternatively, perhaps each area needs to grow its alternative supply chain and outlets. More detailed and comparative information on these apparent differences would be enlightening.

6.2.1.3 Other organic consumers' issues

During the interviews with the representatives of each alternative market outlet, important issues regarding organic consumers were raised. These included prices at alternative market outlets compared with those at supermarkets, availability of products, consumers' knowledge about eating seasonally, consumers' attendance and the important facets of fresh products that attract consumers. All these are discussed below.

There is a difference in prices for organic products at supermarkets and alternative market outlets. These are comments from representative of alternative market outlets based on their consumers' opinions: "...Price is reasonable, organic food is a little bit cheaper, consumers are happy with prices." The findings of the current project support these of by (Trobe, 2001; Planck, 1999; Meikle, 1999; DERFA, 2006a). These reflect the importance of key outlets in the home markets. The alternative market outlets seem to provide organic food for their consumers with reasonable prices compared with

supermarkets. This is an important issue in trying to overcome the main barrier of organic food consumption namely 'prices'. This is one of the advantages of the direct sales route adopted by these outlets. The products come straight from local producers (minimum distance), and the need for packaging may be minmimised. All these may be considered reasons for the low prices at these outlets compared with supermarkets. In additional to lower prices, environmental damage was lessened.

In terms of availability and sourcing of organic, it was clear that there were some difficulties in sourcing many kinds of products for these outlets. However, the alternative market outlets focus on seasonal products locally available for consumers. Here again, alternative market outlets are trying to overcome obstacles by adopting the new strategy of 'eating seasonally'. This has been encouraged by the Soil Association because of its positive impact on local organic production and organic producers (Soil Association, 2005). In contrast, the representative of the alternative market outlets indicated that there is a lack in consumer' knowledge about organic food production in general, and more specifically in terms of 'eating seasonally.' This is possibly due to limited information or that consumers do not trust the information provided (Makatouni, 2001). The Soil Association along with the government bodies aim to do a good job in educating consumers "....Our job is to educate consumers to the benefit of eating seasonally." the market information manager at the Soil Association said.

Consumers shop at the specific outlets on a regular basis, attracted by appearance, freshness, and taste. It seems that these characteristics of fresh products are key factors in attracting consumers. This is supported by previous studies (Hallam, 2003; Soil Association, 2000). Understanding what motivates consumers, what are barriers to them, and how knowledgeable the consumers are about organic food production seem key to adopting effective strategies to promote organic farming. This reflects the importance of developing interrelationships amongst stakeholders. The key findings are illustrated below:

- Health benefits, environment, and taste are the key motivation for consumers to buy organic. Animal welfare, quality and ethical issues are also motivating factors
- Price and availability of products are major barriers to increased organic consumption
- There were other hidden costs making prices high and consumers may not be aware of these. Clean water and soils free from chemical polluters are examples of factors that increase costs
- Lack of consistency in quality of organic food, identify organic products in the supermarkets are considered barriers for some consumers
- Consumers like to support organic producers by buying their products
- There is lack in the information about organic and consumers need to be educated
- The price of organic foods at alternative market outlets is generally cheaper than that in supermarkets
- Alternative market outlets focus on selling seasonal products. However, the consumer's knowledge about the concept of 'eating seasonally' is still very limited
- Appearance and freshness are the main characteristics of organic food, which may attract consumers

6.2.2 Supermarkets

In this section, results from interviews with four supermarkets' representatives are discussed in detail. The discussion of these results are categorised into three main categories:

- Supermarkets' aims and motivations to sell organic products;
- Supply and demand issues;
- Imports.

6.2.2.1 Supermarkets' aims and motivations

The main motivations for supermarkets seem to be providing consumers with broad choices of high quality organic food and making organic products more available at fair prices. All supermarket representatives indicated that the main aims of supermarkets in respect to organic food are to support and encourage organic producers and profitability was not a priority. These findings were supported by other studies (Hallam, 2003; Smith and Marsden, 2004; Sainsbury's, 1997; Tesco, 2001a; Waitrose, 2002; Wier and Calverley, 2002). The representatives of supermarkets also indicated that there are ranges of support and encouragement provided to organic producers. These are:

- Run specific research, workshops, and listening conferences for organic producers to encourage them toward conversion;
- Increase marketing budget;
- Support organic action plan and make it accessible for producers;
- Influence government to provide financial support to organic producers;
- Pay organic producers fair prices and push the prices down;
- Increase the level of British sourced organic food sometimes without looking for quality;
- Build long term suppliers relationships.

Yet despite this support and encouragement from supermarkets, organic producers felt that the supermarkets do not support them. In particular, they feel they do not pay them reasonable prices that reflect the true costs of production. Producers therefore seem dissatisfied with their relationship with supermarkets. These findings were supported by other studies (Soil Association, 2001a; Tate, 1991). It appears that the issue of supporting organic farmers still debatable, and this was discussed in detail with the Soil Association's representative. The Soil Association's representative indicated that supermarkets were motivated mainly by consumers' demand, the desire to maintain market share and by competition and profits. In terms of support, supermarkets may provide help in some ways. More details are given later when dealing with responses from the Soil Association's representative. It is appears that the supermarkets' motivations and aims seem to be a "controversial" issue with a difference in perception between the stakeholders. In contrast, Smith and Marsden (2004) in another study argued that supermarkets regard organics as just another commodity range. However, independent studies to support the perceptions of supermarkets are limited. The majority of organic producers sampled indicated that there were no direct formal contracts exist with supermarkets. Some farmers sell their products to supermarkets through farmers' cooperatives. In addition, organic producers seem unable to meet the grades and specifications of supermarkets (quality, and quantity of products). This may be the main reason why supermarkets do not have direct contracts with organic producers. In addition, the small amount of available local products grown and inconsistency in the quality of products (appearance, shape, size, shelf life, and packaging) are barriers for supermarkets.

6.2.2.2 Supply and demand issues

The representatives of the four supermarkets indicated that the demand for organic food is still not satisfied and so importation is the only option. This is considered essential for supermarkets to meet increased demand. These are examples of what the representatives of supermarkets said: "... We satisfy increased demand by provide food with high quality mainly from overseas, we are making sure every thing is available for our consumers. We import organic food from outside the UK because it is cheaper and our consumers prefer to buy imported products". It appears that the main reasons for continued importing are the lack in locally produced food and increased demand. However, the representative of Supermarket Two indicated that they import organic food because of 'cheap price' and 'consumers' preference'. This seems conflict because Supermarket Two indicated early "...We are never beaten on price since profitability is not our priority." In addition, organic consumers prefer to see fewer imports of organic food as they generally wanted to support the local British producers (Makatouni, 2001; Torjusen *et al.*, 2001).

It is also appears that there is imbalance between supply and demand. Hanson (2003) concluded the following reasons for this: 1) Inadequate marketing structure; 2) Lack of organic seed and feed; 3) Lack of local abattoirs and slow rate of conversion. Additionally, the findings of the current project (according to the opinions of producers, consumers, and supermarkets' representatives) highlight issues behind the imbalance between supply and demand:

- Lack of stable and predictable financial support from government;
- Lack of support and encouragement from supermarkets;
- Complexity of inspection and certification process;
- Access to high quality information is limited;
- Lack of positive interrelationships / cooperation among producers, consumers, and retailers.

All these factors may have negative impacts on producers' motivations toward conversion and may lead to low and inconsistent production. The representative of Supermarket Two said "... We do not have supply base in the UK to deliver what volume we need consistently." It seems that the limited local supply base is another barrier for supermarkets as well as for the wider UK market. Similar results were found

by (Burt and Sparks, 1997). Availability of organic products, financial support, quality, and understanding of organic food seems the key drivers for supply and demand of UK produced organic food. According to the results and discussion above, availability of organic products, lack of financial support, lack of public education and the products' grade and specifications are factors, affecting supply and demand of organic food. The findings also revealed that retailers, consumers, and producers are shaping the organic supply chain. However, consumers are the main drivers for the organic supply chain. These results agreed with those of Mintel (2003). Consumers want organic foods to be available in good quality at fair prices; and producers and retailers need to provide consumers with what they need. However, producers find it difficult to meet the huge demand and supermarkets realise that the local production is not enough to meet the increased demand. They try to satisfy this by imports from overseas producers.

Regarding the importance of the local supply chain (alternative market outlets) in the home market, the supermarkets' representatives indicated that the contribution was very limited but that it is important. Retail sales made through alternative market outlets are growing with an increasingly important contribution in the home market. For example, direct sales through these outlets were estimated to be £113 million in 2004 and £125 million in 2005 (Soil Association, 2005; and 2006a). Despite the small contribution of these outlets compared with supermarkets (£1.2 billion in 2005, Soil Association, 2006a), this shows direct sales developing. It may also be that these alternative outlets help promote the wider organic food market, including sales from supermarkets. This continued increase in the contribution of these outlets in the home market indicates that organic consumers may be becoming more interested in buying organic products direct from producers. Mintel (2000), Soil Association (2006a) and Lawrence (2005) supported these results.

6.2.2.3 Imports

According to this research, about 70% of the organic food sold in the UK is still imported. This includes some indigenous crops, which can be grown under British climatic conditions. This finding is supported by other studies (Soil Association, 2000 and 2005; The Organic Target Bill Campaign, 2001). Just few examples clarify this point: the representative of Supermarket One indicated that only 40% of some indigenous crops such as salad, cucumber, tomatoes and broccoli are locally sourced

and 60% of these crops were imported. About 45% of cabbage and cauliflower are locally sourced, with 20% of other vegetables, crops such as pepper, peas and beans locally-produced; 80% of these crops sold in supermarket one are imported. The representative of Supermarket Three indicated that 67% of indigenous products in the shelf are come from British farms. These products include vegetables, beef, lamb, eggs, chicken *etc.* The results show high percentage of imports (70-80%) for other supermarkets.

This is seems a critical issue in organic farming growth and development. The British climatic conditions are suitable conditions for growing such crops and local producers are capable to plant, harvest, and sell theses crops. Despite this, the supermarkets continue to import a significant proportion of these crops, although some clearly make efforts to increase the homegrown element. Seasonality is perhaps a major problem for the supermarkets. This situation is a barrier for both organic producers and the local organic market, so organic producers try to find other alternatives to sell their products. In addition, some crops / products sold in the supermarkets are locally or UK-sourced where possible (for example, lamb, onion, carrot, eggs and chicken). There is nothing essentially wrong with importing crops which cannot grown under British climatic conditions such as banana, mango, coffee *etc.*, but excluding UK organic produce from supermarkets may be a problem. Some supermarkets do not see any conflicts between imports and local production. They try to make every thing available for their consumers to maintain market and keep consumers back to store. However, local production is sometimes not enough and may be inconsistent. Therefore, supermarkets have to import huge range of organic products to compensate for the decreases. It does seem that supermarkets are facilitating strong growth in the home market. However, the import strategy may limit the development of the UK-sourced organic food market. The representative of the Supermarket Three mentioned that there is a conflict in prices. This indicates that prices become barriers not only for consumers but also sometimes for supermarkets. This is why supermarkets keep importing large amount of organic food with good quality at cheap prices compared with local products, and this seems to be what many people in the wider marketplace want. It is a basic issue of supply and demand, and competition in the marketplace. From interviews with supermarkets, the following are key findings:

- Broad choices for consumers and availability of organic products at good prices seem the key motivations for supermarkets
- The supermarkets' main stated aim in respect to organic food is to support and encourage organic producers. However, producers indicated that there is limited support provided from supermarkets
- Demand for organic food not yet satisfied so supermarkets try to satisfy increased demand by overseas imports
- Availability of consistent quantity and quality of local products is insufficient and so a barrier for supermarkets
- Lack of support, availability of high quality information and lack of long-term interrelationships among key stakeholders of organic farming systems are considered to be issues affecting supply and demand
- The key drivers for supply and demand of UK produced organic food are availability, financial support and understanding of organic food
- Organic supply chains are mainly driven by consumers
- There is a relatively small but important and growing contribution of alternative market outlets (direct sales) in the home market
- Huge amounts of organic products still imported. Supermarkets import organic food to meet increased demand
- Local producers try to find other channels rather than supermarkets to sell their product and prefer direct sales

6.2.3 The Soil Association

As discussed earlier, an interview was conducted with the representative of the Soil Association to verify information collected from supermarkets (see Appendix 4 for detail). This section presents views from the Soil Association's representative:

- Supermarkets' motivations;
- Supermarkets' aim and strategies;
- Supply and demand issues.

In the opinion of the Soil Association representative, the supermarkets' motivations to sell organic food are consumer demand, maintaining market share, competition, and profits. The Soil Association representative added that supermarkets do not sell organic products for health, or animal welfare, or environment; they do it for profit. These findings agree with inferences from other studies (Tate, 1991; Steele 1996; Soil Association 2001a; Smith and Marsden, 2004). It appears that there is a conflict between what the representative of the supermarkets and the Soil Association said; though the stance of each is expected and understandable.

In terms of support to farmers, the Soil Association representative indicated that supermarkets might provide this in some ways. For examples, Sainsbury's have increased the share of British sourced produce to 70%, and Tesco introduced more seasonal products into their stores. Additionally, Asda indicated that they are encouraging local growers and farmers to deliver produce directly to their local stores instead of supplying via a regional depot (AMS, 2006). Paying farmers' fair prices is seen as another kind of support. However, here again the experts differ; the Soil Association representative indicated that the supermarkets do not pay fair prices to organic farmers. Supermarkets also seem to prefer to deal with organic co-operatives rather than individual farmers, and this is may be due to the small amount of organic products in from individual farms. Supermarkets try hard to give people value and their primary aim is to grow their market share and their profit margin. However, supermarkets sometimes do not give producers a long-term contract commitment because they change their suppliers in order to get best price. It is appears that the small amount of locally sourced products, and the inconsistency and lack of predictability in organic production become a barrier for supermarkets. They then source organic products from outside the UK. From the short-term business perspective and in a competitive marketplace this is a reasonable strategy.

The Soil Association representative indicated that there is a need to increase amount of organic production in order to meet the increased demand. However, they accept that imports are also needed. Nevertheless, in their opinion, it would be better all round if the indigenous products were sourced locally. The imports should be other products, which cannot be grown here. Currently the domestic producers meet demand (100%) for several products such as lamb and butter. The main strategies of the Soil Association is to engage consumers to the level where they stop eating products out of season and encourage them to eat seasonally; an important support to British producers. The Soil Association believes that there is a conflict between importing and the sourcing of local products. The main reasons for this are that consumers want the products available all year round, local production is not enough, and supermarkets source production from overseas. The Soil Association representative concluded that the conflict would continue until consumers become more educated about organic food and local, seasonal production. There is a specific issue about eating seasonally and current consumer habits are a barrier. There is also the question of whether education will affect the broader range of consumers, or is price the key?

As discussed earlier, the Soil Association supported the argument that alternative market outlets make an important contribution in the home market. A main strategy for the Soil Association is to encourage producers to go to direct sales. This strategy leads to building relationships of trust between producers and consumers, more support to British producers and protection for the environment. Similar findings were found by other studies (Trobe, 2001; Pretty *et al.*, 2005). Health, environment, and animal welfare were identified by the Soil Association as main drivers for both supply and demand of UK-produced organic food and organic consumers. According to the Soil Association, the drivers for supply and demand of UK produced organic food and organic consumers are the same. It could be concluded that consumer pressure is the main driver for the supply of organic food and this is through the escalation of demand. The key findings from the views of the representative of the Soil Association are:

- Supermarkets' motivations to sell organic food are consumer demand, maintain market share, competition and profits
- Supermarkets may provide support to organic producers in some ways
- Supermarkets do not pay producers fair prices for their products
- Supermarkets prefer to deal with farmers' co-operative rather than dealing with individual farmers
- The locally produced food is not enough to face increased demand and may not meet the standard and specifications of supermarkets
- The British market still suffer from the unbalance between supply and demand
- The main strategy of the Soil Association was to encourage producers and consumers to go to direct sale (educate consumers about eating seasonally)
- There is a conflict between importing and local production and this conflict will continue until consumers become more knowledgeable about organic especially 'seasonality'
- Alternative market outlets has an important contribution in the home market
- Consumers are the main driven for supply and demand of UK produced organic food

6.2.4 Alternative market outlets

In this section, results from interviews with representatives of five alternative market outlets are presented (details in Appendix 5). The discussion here is in three categories:

- Motivations and barriers to sell organic products;
- Sources of products and information;
- Supply and demand issues.

6.2.4.1 Motivations and barriers of alternative market outlets

The managers of alternative market outlets (organic shops, farm shops, and organic cooperatives) indicated that they are motivated mainly by a desire to provide alternative shopping to supermarkets. Their motivations include environmental protection, health concerns, ethical issues, and making money. The organic farmers' organiser indicated that producers selling at farmers' markets want to run their own business and control their own destiny.

Organic producers at farmers' markets seem less influenced by bureaucracy, with fewer specifications and often no packaging needed. This contrasts with the situation when they deal with supermarkets and wholesalers. Farmers' markets may give organic producers opportunities to access the organic market; receiving a good price for their products through bypassing intermediaries in the sales chain. These findings are supported by other studies (Planck, 1999; Meikle, 1999; Bur *et al.*, 1999). In addition, the producers are generally 'local' and the food miles are lower so products are fresh. That may encourage consumers to buy. However, preparation of organic products for sale and transport from farm to market may be expensive in terms of time and effort, and hence costs. Furthermore, the prices paid seem at farmers' markets are lower than at supermarkets, and this may of course attract consumers. Trobe (2001) found similar results. However, the organiser of the farmer's market indicated that imported products are very cheap and often of good quality compared to these at farmer's market. Because quality is an issue for some organic consumers (Grunert *et al.*, 2001), producers need to address this if they are to attract more consumers. It seem that the alternative market outlets and both producers and consumers share similar motivations in terms of the environment, health, and ethical issues (see Table 16 and Section 5.1.1.2). This similarity may lead to share value, may have a positive impact on the interrelationships between them, and affect the development of organic farming. The issues of interrelationships are discussed in detail later.

Providing consumers with alternative and convenient shopping opportunities is important as a motivation for alternative market outlets. Alternative market outlets believe that is critical to differentiate their product from that supplied through the supermarkets. They indicated that they offer a range of consumer (e.g. vegetarian, ethical, and those suffering from food allergies) a convenient source of produce specific

for their needs. Fresh vegetables and fruits are the main organic products in alternative market outlets: with milk, cereals, coffee, baking, homemade products, and natural care products also sold. The majority of these are sourced from local farmers, farmers' cooperatives, and wholesalers. Again, this is an important support to encourage organic producers and the local market. All the managers of alternative market outlets indicated that they focus on selling seasonal products (vegetables and fruits). This indicates that consumers here may be interested in buying fresh and seasonal products directly from these outlets. In addition, these outlets seem to be driven on the one hand by consumers asking for fresh products, and on the other, producers who wish to sell them. It seems that the demands of both producers and consumers are key factors in maintaining and developing these outlets.

The managers of some alternative market outlets (organic shop 1, organic cooperative, and farmers' market) consider that supermarkets are a barrier for the growth and development of the organic home market. They felt that supermarkets 'controlled everything' and put in place difficult grades and specifications. These are hard for producers to meet. Supermarkets' grades and specifications seem to be key barriers for UK organic producers. Difficulties of sourcing some organic products were also considered as barrier for the outlets; perhaps because of the small amount of local production, and this is a problem they share with the big supermarkets. In terms of information, the representatives of alternative market outlets indicated that local media and certification bodies especially the Soil Association are their main sources. The flow of information from alternative market outlets to organic producers and consumers may promote education about organic food. This may positively affect their motives to buy organic.

6.2.4.2 Supply/demand issues

Regarding supply and demand, the managers of most of the outlets indicated that there is huge demand for organic products; and local production is not enough to meet this. They are suggesting that organic producers need to work hard to increase local production to satisfy the growing demand. Some of the managers of alternative market outlets mentioned the imports as negative. However, producers seem unable to satisfy demand and direct sales are not enough to provide all organic consumers' needs. So imports may be needed to maintain the market.

By reference to farmers' marketing channels (Section 5.1.1.3), it was clear that some farmers use other routes to sell their products. Direct sales through alternative market outlets were a main route. In addition, the representative of the alternative market outlets indicated that the contribution of these outlets in the home market is very significant, "it is getting better year after year". This is may indicate that in the future the local organic market will grow. These findings were supported by previous studies (Soil Association, 2005; and 2006a). Additionally, this research revealed that both organic producers and consumers are becoming more interested in direct sales. Other studies (Booth, 1999; Planck, 1999; Trobe, 2001; Hermansen, 2003) agree with this. In terms of support, some alternative market outlets receive advice, mainly from the Soil Association. No financial support was provided from government and other agencies. However, farmers' markets do receive support from local authorities in provision of space, rented stores, and general encouragement. In conclusion, the main findings are summarised below:

- Good deal, fair price and no much specifications and control are the main motivations for producers to sell their products to alternative market outlets
- Alternative market outlets mainly motivated by environmental protection, health concerns and ethical issues. Making money is also motivations for some outlets
- Fresh vegetables and fruits are the main organic products sold in alternative market outlets (seasonal products)
- Local farmers and farmers' co-operatives are the main suppliers for the outlets
- These outlets emerged and driven by both consumers and producers
- Local production is not enough to meet huge demand
- Some outlets indicated that imports still needed to satisfy demand, other consider import strategies main barriers for growth and development of local market
- Availability of organic products is considering another barriers for some outlets
- Alternative market outlets are important routes for organic producers to get access to the market
- There is an important contribution of alternative market outlets in the home market.
- Both producers and consumers become more interested in direct sales
- The Soil Association seems the main source of information for most alternative market outlets
- Alternative market outlets have a link with their consumers and producers to provide them with all information about products and market

6.3 Part Three. Interrelationships and triangulation

The interrelationships and cooperation between key stakeholders of organic farming are suggested as important issues in the growth and development of the UK organic sector. This was discussed in Chapter Three. Here the opinions of organic farmers,

supermarkets, the Soil Association, and alternative market outlets about the importance of interrelationships in organic farming development are assessed. All the research findings were set within the Conceptual Framework (Figure 8). This was to evaluate and describe these interrelationships, and to what extent they affect organic farming development.

As indicated in the results (see Figure 28), about 81% of organic farmers stated that these interrelationships are important in the growth and development of organic farming. Similar results were found by other studies (Pederson, 2003; Smith and Marsden, 2004; Infood, 1997; Soil Association, 1999). The opinions of organic farmers were also assessed in terms of the impacts of interrelationships on certain aspects of organic farming development (see Figure 29). A large proportion of organic farmers agreed about the positive impacts of such interrelationships on the aspects of organic farming development. Based on farmers' opinions, it seems that the development of organic farming may be strongly influenced by these interrelationships. Representatives of all the supermarkets also emphasised the importance of the interrelationships between stakeholders. They indicated that these interrelationships between producers, supermarkets, and consumers are essential and lead to expansion of converted land and sustainability. Supermarkets also indicated that delivering what they view as unparalleled services to their consumers could not happen without developing long-term supplier relationships. This is seems consistent with Wier and Calverley (2002) (AMS, 2006).

All representatives of alternative market outlets indicated that there are many advantages of interrelationships between the stakeholders of organic farming. According to their opinions, it leads to building relationships of trust between key stakeholders and positively affects the organic food market. The Soil Association representative also indicated that good relationships between producers, consumers, and supermarkets are essential to serves in the organic market. The organic farming system is considered as a 'network', which is a set of interrelationships. The Soil Association representative said "...if the interrelationships break down, the network will collapse and if the network collapses, then we will not sell organic produce.". He added that these interrelationships are currently inexistence. The building of trust relationships based between consumers and producers through direct sale and flow of information between consumers and supermarkets are the best examples. Additionally, the Soil

Association as well as the Department for the Environment, Food and Rural Affairs (DEFRA) are encouraging both consumers and producers to engage in direct sales. This may help to build long term and trust relationships between consumers and producers (Soil Association, 2006a; DEFRA, 2006a).

In summary, all stakeholders have the same conclusion that the interrelationships are a key issue in organic farming growth and development. They also indicated that the interrelationships must be strong and based on trust. Nevertheless, farmers seem dissatisfied in their relationships with supermarkets due to a variety of reasons (see Section 6.1.1.2). Therefore, it is concluded that the relationship between the farmers and supermarkets is not strong enough and it may classified as a 'confrontational' relationship (Figure 32). This is consistent with Tate (1991) and Soil Association (2001a). The confrontational relationship between farmers and supermarkets may affect organic farming development in several ways, having negative impacts on amount of land in conversion and the amount of local products. The relationship between producers and consumers appears much better than that between producers and supermarkets.

This research concluded that producers are focusing on direct sales to consumers, and consumers are becoming more interested in seeking suppliers at farmers' markets and farm shops. These findings agreed with Hormones (2003), Makatouni (2001) and Mintel (2000). By buying locally grown produce, organic consumers felt they are providing support to local producers. However, about 70% of the British public have no idea what food the farmers in their area produce (NFU, 2000). It seems there is a gap between consumers and producers in terms of information about organic food production. Mardsen (2001) argued that supermarkets are contributing to the growing gap of knowledge in food supply by offer little to no scope for face-to-face contact or knowledge transfer between producers and consumers. This research revealed that the flow of information between consumers and producers still limited. In contrast, the Soil Association encourage producers to go to direct sales and consumers to stop eating products out of season. This strategy of the Soil Association may lead to improve the cooperative relationships between consumers and producers. Consequently, this may encourage increased organic food consumption, more local production, and better education for both consumers and producers.

According to the opinions of the managers of alternative market outlets, there are several issues related to the interrelationships between organic farmers and alternative outlets. These are:

1) Farmers and farmers' cooperatives are the main suppliers for alternative market outlets;

2) Organic farmers and alternative outlets seem to share similar motivations toward organic;

3) Organic producers appears less controlled by bureaucracy with few specifications when deal with the alternative outlets;

4) There was a direct contact and flow of information between the outlets and organic farmers.

These issues appear to be key factors in building 'collaborative relationships' between these two stakeholders (Figure 32). This may have positive impacts on expanding the local market, protecting the environment, and increasing organic food consumption. However, alternative market outlets sometimes had trouble in sourcing some organic products.

Supermarkets rely on their consumers and consider them as the main drivers of the organic food market. According to this, supermarkets tried to offer them broad choices of organic food with quality at fair prices. Results indicated that many consumers across the UK still prefer to buy organic food from supermarkets. That is possibly because of the high quality and better display of organic products at supermarkets, which make shopping more convenient for consumers (Soil Association, 2006). In addition, supermarkets try to educate consumers about organic food through conducting listening conferences and by providing consumers with information about products and markets. This kind of link (collaborative relationship) between consumers and supermarkets may lead to better education, more food consumption and expand the market.

As discussed earlier, direct sales through alternative outlets offer consumers alternative shopping to supermarkets by provide them with local, fresh, and healthy food at reasonable prices with a minimum distance. This may leads to increase local co-operation, minimise food miles distance (protect environment) and building consumer confidence. These findings are in consistence with other studies (Trobe, 2001; Ross, 2000; Soil Association 1999). It could be concluded that the relationship / cooperation

between consumers and alternative outlets is 'improved' and may leads to increase local organic production, amount of food consumption (Figure 32). The managers of alternative market outlets indicated that supermarkets are using their power to control market and supply chains. Similar result was found by other study (Soil Association, 2001a). They also added that supermarkets rely on imports to do good business. The managers of alternative market outlets try to provide their consumers with alternative shopping to supermarkets by offering those products that are not available in supermarkets. It seems that supermarkets are the main challenge for these outlets. FARMA (2006) argue that the alternative market outlets need to create new systems of provision bypass the supermarkets supply chain, and organise in such a way to wield sufficient power in the marketplace. It appears that the relationship between alternative market outlets and supermarkets was based on competition and may be classified as a 'disconnected relationship' or may not exist at all (Figure 32). Disconnection between these two stakeholders may negatively affect local organic production, and increase imports and environmental degradation. In contrast, several studies (Banks and Marsden, 2001; Burt and Sparks, 1997) concluded that the dominance of supermarkets resulted in the UK having the fastest growing organic market in Europe. These studies noted that organic market expansion creates more land under organic and attracts more consumers. They feel that this cannot be achieving without engaging with supermarkets who acts as a key gateway to the mass market.

With reference to, the Research Framework (Figure 8) and the findings of this research, the classification of the interrelationships among the key stakeholders and its impacts on several aspects of organic farming development are illustrated in Figure 32.

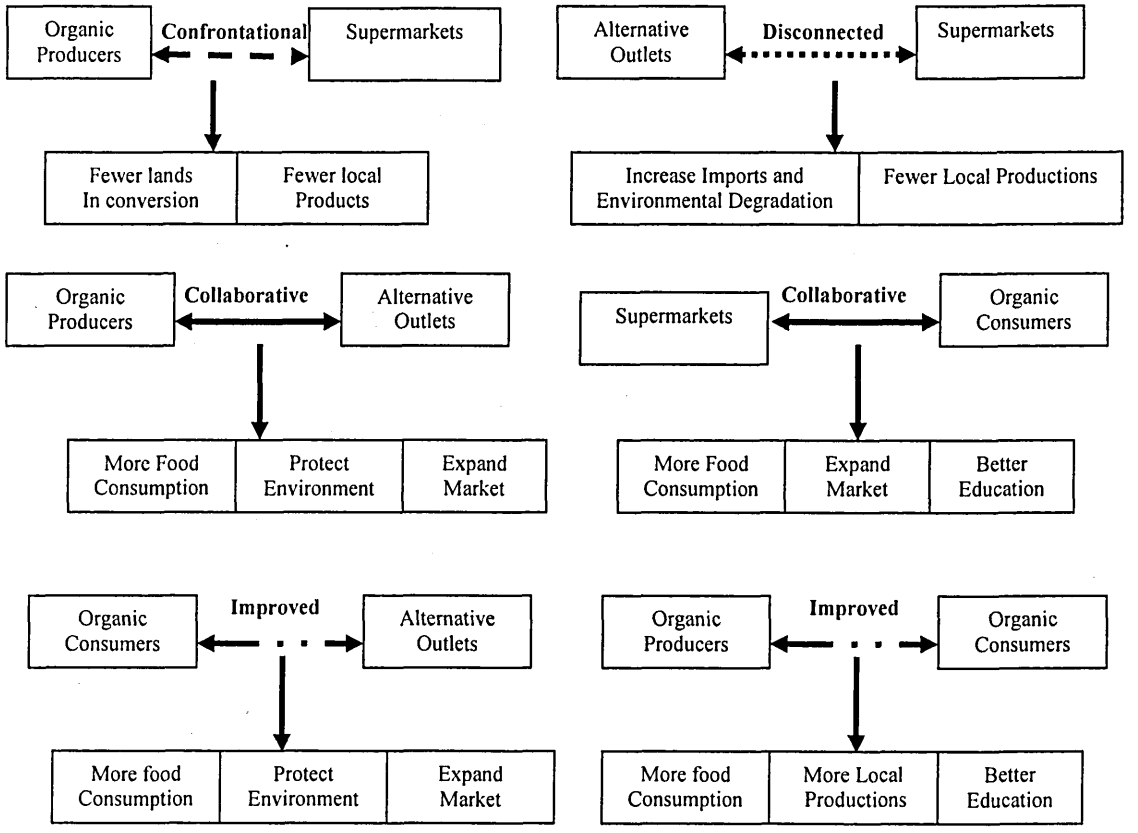
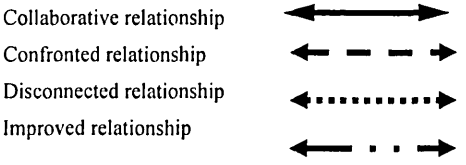


Figure (32). Assessment of interrelationships after evaluation of stakeholders information and its impact s on the aspects of organic farming development.



From Figure 32, it may be concluded that any growth and development in organic farming system depends mainly on good communication, cooperation, connection, and collaboration between its key stakeholders.

The research has highlighted some key issues and suggests a number of tensions that may be critical to the future development of organic farming in the UK. Some of these are in broad agreement with the published literature; others are new observations or differ from established opinion. There are interesting differences in views expressed by key stakeholders, with perhaps a degree of hypocrisy too over matters such as pricing and profits. There are also areas where initially counter opinions (for example supermarkets and alternative supply chains), where they in fact express similar concerns, notably in this case the difficulty in sourcing locally. The different groups of stakeholders all seem to be aware of the importance of partnerships or at least positive

interrelationships. How they each translate this into action is of course the critical factor. Similarly, many expressed their view that 'education' or at least dissemination of information, was very important. Again, the content of the information, the audience to whom it is directed, and indeed the form of the dialogue become critical issues. Some stakeholders expressed opinions that the main thing was to educate the public into understanding the 'goodness' of organic food and the fact that it is more expensive. This assertion seems to ignore the strongly held feeling that the majority of people in the UK expect to pay low prices for food. So whilst education and information might influence a relatively small proportion of concerned ethical consumers, who must also be able to afford to buy at premium prices, will it really influence the wider shopper?

There also appears to be confusion for many shoppers about what is 'organic' and particularly so in terms of 'local' foods, and of 'conservation' or 'environmentally-friendly' or 'sustainable' products. Combined with issues of seasonality, these appear to muddy the waters for many buyers. It seems then that information or education, in terms of clear and unambiguous labelling could help some at least make a more informed decision in their shopping. This might then help the longer-term development of the organic farming sector in the UK.

Price and presentation seem also to be critical issues with a deep tension between stakeholders in terms of the domestic supply chain and that based around imports. Despite protestations from most stakeholders that price and profit are not issues, (when in fact they must be) these seem to be key barriers to consumer purchase, and to supermarkets sourcing locally. Other factors influence overall profiles and performance, but price and quality are critically important.

To conclude the Discussion the critical analysis and triangulation assessment of key the research attempts to tease out the main findings of this research. This is presented in relation to various identified topics in Tables 26, 27, 28 and 29. These Tables present the main findings of this research with regard to the key topics. The perceptions of key stakeholders of organic farming about several important categories are assessed to tease out the key issues relevant to improvement of organic sector in the UK. For example, all stakeholders considered lack of knowledge about organic especially 'eating seasonal' to be major obstacle for organic food consumption. Producers felt that supermarkets' grades and specifications are difficult for them to meet and they are trying to find other routes (alternative market outlets) to sell their products. However, price is still the main

concern for consumers when buying organic food. Limited local supply base becomes a serious barrier for both supermarkets and alternative market outlets. This may be the main reasons for continuing import organic food from outside the UK, which may increase the adverse impact of climatic changes. Interrelationships between stakeholders seem to be the key factor in developing the organic sector. The findings of this research concluded that good communication, cooperation, collaboration and sometimes partnerships are key issues in promoting organic food production in the UK.

Table (26): Critical analysis of key findings relating to selected issues: Education and access to information.

Stakeholder	Category and Evidence		
	Education	Access to information	Assessment
Producers	"There is lack in public education about organic. About 72% of farmers felt that their knowledge about organic was sufficient before conversion, but they also felt agricultural colleges and universities were unwilling to improve their courses." (Organic farmers).	35% of farmers found access to the common information sources was moderately difficult; 29% found it easy. About 74% of farmers seek information from other sources such as friends and neighbours.	Producers consider lack of knowledge about organics by consumers' to be a major barrier for organic food consumption. Difficulties in information access may affect producers' motivations toward organic.
Consumers	"Consumers felt confused about what is and what is not organic" (T.N.S, 2003). Information about organics offered to consumers was not enough (Makatouni, 2001). "People need to know the hidden costs of organic food production." (The Soil Association).	"Knowledge of the relative importance of different sources is limited." (Tallontire *et al.*, 2001). "Consumers did not trust the nutritional information given to them either by the government, doctors, supermarkets or other organisations." (Makatouni, 2001; Henson, 2001).	Consumers seem to be uneducated about organic, but perhaps about foods generally. They do not trust the information provided. However, it is not clear whether improved knowledge would really make a difference to the purchase of organics. The British public expect to buy cheap food.
Supermarkets	"There is a lack of understanding what organic food is. Consumers need to be educated. Knowledge about organic are become significant barriers for consumers." (Supermarket 2). "Continued media coverage in balance with increased supply will help drive future growth for organic products in the UK." (Supermarket 4).	"We provide our customers with specific magazine about organic." (Supermarket 2).	Supermarkets try to educate consumers about organics. However, consumers' understanding still limited and there may be problems about mixed messages. Many alternative outlets promote organics with an ethical edge; but this may be in conflict with the educational / informational messages from the supermarkets.
Alternative outlets	"People need to be educated about organic food." (The farmers' market). "I think there is a need for more education." (Organic shop 2. and farm shop). "I do not think at all that consumers are well educated about organic. Educating consumers will be amazing." (Organic cooperative).	"We send a little leaflet with the box to our consumers explains why we have not got this and what constraints we face and why." (Organic shop 1). "We advertise for seasonal products." (Organic shop 2). "The Soil Association provides us with support in form of information." (Organic shop 2).	Alternative market outlets felt that consumers still need more education. Do consumers get mixed messages from the different stakeholders? Does this add to the confusion?

Table (27): Critical analysis of key findings relating to selected issues: Grades, specifications and prices.

Stakeholder	Category and Evidence		
	Grades and specifications	Prices	Assessment
Producers	"Farmers find it difficult to meet supermarkets' grades and specifications." (Organic shops 1 and 2)"Supermarkets need to use more of second grade vegetables that are more available to more people." (Organic farmers).	Farmers concerned about lower profits increased from 10% before conversion to 12% after conversion. "Supermarkets do not give farmers fair price." (The Soil Association).	Supermarkets' grades, specification, and (from the farmers' viewpoint) the unfair prices seem the main barriers for organic producers. Producers felt that supermarkets could use second-grade vegetables at lower prices. However, this seems to overlook the fact that organic foods are more expensive. Supermarkets also place an emphasis on visual quality.
Consumers	"Organic consumers sometimes require additional food specifications such as nutrient contents, absence of harmful substances or GMOs as quality characteristics and these become their motives for purchase." (Torjusen *et al.* 2001).	High costs of organic food are the main barriers for consumers (The Soil Association, Supermarkets 1, 2, 3, and 4). "About 73% of organic consumers would like to see low price offers on organic food and drink." (The market Tool Inc.).	Some consumers ask for additional specifications. For many consumers though, high prices if they remain will stay as a barrier. Avoidance of water and other environmental pollution (hidden costs) are major issues in costs.
Supermarkets	"Shape, size, shelf life, appearance, and packaging are our specifications." (Supermarket 1, 2 and 3). "Not always the farmers meet our grades and specification." (Supermarket 1). "Organic farmers do meet our grades and specifications." (Supermarket 2)."All grades are decided collaboratively between us and our suppliers." (Supermarket 4).	"We influence our consumers to understand the high price of the organic food." (Supermarkets 1 and 3). "We pay farmers fair prices. Formal contract with farmers is not exist" (Supermarket 1 and 2). "The price of about 100 organic foods has been cut." (Supermarket 3).	Supermarkets' specifications seem not meet by organic producers. There is a conflict between producers and supermarkets concerning prices paid. Supermarkets regard 'appearance' as a premium marker of 'quality', and their consumers are strongly influenced by this.
Alternative outlets	"Producers find difficulties to provide supermarkets with what they need according to their grades and specifications. Supermarkets kill community shop off and make every thing uniform and packing." (The farmers' market). "Small local products and specifications are the major reasons for producers to sell their products directly to consumers." (Organic shop 2 and organic cooperative).	"Prices at farmers' market are cheaper than supermarkets or sometimes the same." (The farmers' market, organic shops 1 and 2). "I do not think price is a big challenge for consumers to buy organic food." (Farm shop). "Price at organic cooperative is reasonable for consumers." (Organic cooperative).	Producers seem unable to provide supermarkets with what they need. Therefore, producers become more interested in dealing with alternative outlets to get good prices for their products.

Table (28): Critical analysis of key findings relating to selected issues: Seasonality and local supply base.

Stakeholder	Category and Evidence		
	Seasonality	Local supply base	Assessment
Producers	Farmers sell their seasonal products directly to consumers through alternative market outlets.	"Too many conversions will lead to over-supply / low prices and organic sector will be like conventional." (Organic farmers).	Selling seasonal products directly to consumers become a key motivation for organic producers. However, unplanned expansion of organic agriculture could lead to degradation of organic food quality and perhaps, a loss of added value to the producer. This seems to indicate a conflict between what the producers say, and what they really feel. They expect to keep a premium price and that consumers if educated will be prepared to pay. There seems little evidence to support this. Although many organic producers state that profit is not a prime motive for them, they feel a drop in price. The latter would undoubtedly increase saleability and consumption
Consumers	"People prefer to buy direct and get seasonal products." (The Soil Association).		Consumers become more interested in buying seasonal products. However, they still need more education about eating seasonal; and the question remains as to how this affects the majority of consumers.
Supermarkets		"We ask our suppliers to use local products but local production is not enough." (Supermarkets 1 and 4). "We do not have supply base in the UK to deliver what volume we need consistently." (Supermarket 2).	Local supply and seasonality seems to be major barriers for supermarkets. Seasonal products and seasonality may provide opportunities in minimising the adverse impacts of climatic change by minimising imports and food miles.
Alternative outlets	"Consumers mainly ask for seasonal products." (Farmers' market, farm shop and organic cooperative). "Most consumers are not knowledgeable about seasonality." (Organic shop 1). "Our consumers ask for organic food in general, they do not care if it is in or out the season." (Organic shop 2).	"We probably sell more if we got enough quantity." (Organic shop 1). "We need to see all products are sourced locally but with small amount of producers currently available, it is a big challenge for improving local market." (Organic shop 2).	The majority of consumers shopping at the outlets mainly ask for fresh products. The local production may not enough to meet consumers' needs. It seems that the outlets and the supermarkets share the same problem of limited local supply base.

Table (29): Critical analysis of key findings relating to selected issues: Imports and interrelationships.

Stakeholder	Category and Evidence		
	Imports	Interrelationships	Assessment
Producers	"Supermarkets and imports are barriers for development of organic sector." (Organic farmers).	81% of organic farmers felt that interrelationship between stakeholders is an issue in development of organic farming sector.	Import strategy seems a barrier for organic farming development. Organic producers emphasised the importance of interrelationships between the key stakeholders. However, how this translates into action is of course the critical factor.
Consumers	"Consumers prefer to see fewer imports of organic food as they wanted to support the local British producers." (Makatouni, 2001). "60% of organic consumers prefer to buy local production." (The Soil Association, 2003).		It seems that consumers prefer local products because they need to support local producers.
Supermarkets	"Our consumers like to buy imported products." (Supermarket 1)."About 70-80% of our products are imported. We import organic food because it is cheaper." (Supermarkets 2 and 4)."About 67% of indigenous products sold in our stores come from British farms. Our consumers like to buy local products." (Supermarket 3).	"Relationship between producers and retailers is important, it lead to sustainability and expand of converted land." (Supermarkets 1 and 3)."It is our strategy to develop long term supplier relationships." (Supermarket 4).	It appears there is conflict between supermarkets and local producers with respect to imports. Some supermarkets sourced significant amount of organic food locally, some still import huge amount from overseas. This seems to be what many people in the wider marketplace want. Supermarkets emphasised the importance of the interrelationships between stakeholders in promoting organic farming sector.
Alternative outlets	"Supermarkets just need to put stuff out and people pick it up (they are what they are)." (Organic shop 1). "Imports are still needed to meet demand." (Organic shop 2). "The import strategy is not good." (Farm shop). "It is really shocking that supermarkets import this huge amount. (It is terrible)." (Organic cooperative).	"The interrelationships are not so good at the moment but it is getting better." (The farmers' market). "The impact of interrelationships on food market has to be good." (Organic shop 2)."The interrelationships are very important." (Farm shop and organic cooperative).	Some outlets felt that supermarkets keep importing because of profitability. Other felt that imports are still needed to meet demand. All outlets indicated that the interrelationships are essential in the future development of organic UK farming.

CHAPTER SEVEN

7. CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

This research evaluated and critically analysed organic food production in the UK. The key findings were that the producers considered public education to be a key issue in increasing organic food consumption. Yet a consideration of the issues suggests that this may not be the case. Public willingness to pay a premium price is really untested, and there is no hard evidence that a lack of information is the key.

At the same time, the farmers are concerned that extensive conversion may lead to a lowering of the price and hence their 'added value'; this despite the claims that for many profit was not a key driver. For the wider public it seems that clear information is an issue; in many cases, they simply do not understand what they buy or the wider implications of their purchase. Obviously, a sub-set of the public, the ethical buyers do go to great lengths to purchase local and organic foods, and this is often via alternative outlets. Overall, the wider public expect high quality at a low price, and probably do not fully understand the wider issues. They also look for convenience and so most organic food sold in the UK is still via the supermarkets. For the ethical consumer this raises serious issues, and many from this sub-set choose and are able to shop alternatively.

UK organic producers generally felt that supermarkets' strategies and specifications were major obstacles to increasing local organic food production. Yet for some products and in some areas, supermarkets clearly do well in terms of both organics generally, and in local sourcing particularly. There are serious issues of the supermarkets unable to deal with the quality and limited supplies of indigenous organic food. Seasonality clearly is a problem for them, and the Soil Association felt that educating the public about seasonal foods was the way forwards. Similarly, the NFU raised issues of the lack of understanding of local people about what their local farmers produced. In the UK, it seems there is a long-term severance between production and consumption. Perhaps these are key areas for future education.

The findings suggested that organic consumers are becoming more interested in buying seasonal products directly from producers. This is via alternative outlets such as

farmers' markets or box schemes. However, the prices are still serious barriers, but then presentation, reliability, and quality are also issues. Supermarkets aim to provide their consumers with high quality food at reasonable prices. They felt that imports are the only option for them to achieve this because of the limited local supply production. Alternative market outlets try to provide their consumers (ethical consumers) with an alternative shopping experience to the supermarkets. They also provide opportunities for local producers to get access to the market by buying their seasonal products. In the interviews, all stakeholders emphasised the importance of their interrelationships with other players in developing the UK organic farming sector. Yet clearly, the views of the different groupings contracts in terms of the reality of how they consider their current experiences and what they consider to be the priority issues.

For the farmers and other producers that have moved into organic production, it was clear that ethical and environmental issues were major motives. However, it seems likely that for more recent converts, the emergence of a premium niche market is also an important driver. This is supported by their concerns about over-supply, when the stated barriers for accessing supermarkets as outlets are under-supply. It was also suggested that there may be critical areas of lack of support and of easily-accessed information for farmers going into or through conversion. Again, this may be a useful topic for further research.

Finally, though not considered directly through this study, is the issue of climate change. It is widely accepted that major and relatively rapid changes in climate are now occurring across the planet. This changing scenario will have huge implications for the topics discussed in this thesis. First of all food production, processing, distribution and marketing systems all impact and contribute towards climate change; so the topics investigated become even more relevant to this wider context. However, there is a further and perhaps more critical aspect to this. Climate change will influence issues at the heart of the debates highlighted by this research. These are the balance between local production and overseas imports, and associated matters of price, quality, reliability, and seasonality. With changed climates, it may become less viable for overseas producers to supply in the same way that they do today. The adverse impacts of export production in some emerging economies may also make their products less desirable, and sustainability questions may well arise. At the same time, and this is already happening in UK farming, climate change may provide opportunities for

diversification to meet these demands. Seasonal patterns and seasonality may change, and the costs of production in a warmer climate may also fall. Of course, water supply may emerge as a more severe constraint in some parts of the UK. These questions have really come to the fore since this project began, and so were not considered. However, it is suggested that they make the work even more relevant, and may be a direction for future studies.

7.2 Recommendations

The results and findings of this research raise many issues, which go beyond its objectives. As discussed earlier, that the research revealed some key issues which may be critical to promote organic farming in the UK. For examples: 1) The awareness of the importance of interrelationships between key stakeholders and how it may translate into action. 2) Consumer education about the goodness of organic and its impacts on consumers' willingness to buy organic. 3) Benefits of seasonal products and seasonality for consumers, producers and environmental conservation. All these issues and other must be taken in consideration by all stakeholders involved in order to improve the UK organic farming sector. The aim of this section is to make two types of key recommendations; general recommendation and recommendations for further research.

7.2.1 General recommendations for policy makers

1. Continuous support (financial support from government during and after conversion) to local producers is essential in order to improve and maintain local organic production. Supermarkets could encourage local producers by paying them fair prices, giving direct formal contracts, and reducing levels of their grades and specifications. However, these changes would not solve problems of low quality and lack of reliable supply demanded by the supermarkets. Similarly, the Soil Association and other certification agencies should minimise registration costs and inspection; it may be that they already do so. High quality information on organic food production management, marketing, pest control, research *etc.* needs to be available with easy access and at minimum costs for organic producers when needed.

2. If it is desired that consumers can make informed decisions about their purchases then they may need to be more informed or educated about organic food. The knowledge base of many consumers is still very limited. The information provided to them might address the following key issues:

a) The hidden costs of organic food. It is considered by some stakeholders that the responsibility to educate consumers about this issue lies with government and certification agencies.

b) To grow the local market consumers need to be encouraged to engage in direct sales and need to be educated about the concept 'eating seasonally'.

3. If the supermarket is not an option, then alternative local distribution channels are a way to potentially improve the local supply-base. If this is desired then they need more encouragement and support. Alternative market outlets need to build trust and long-term relationships with their suppliers (local farmers) and consumers in order to improve their market share and contribution.

4. Organic farmers in this research highlighted several obstacles such as weed control, availability of grants and support, lack of research and low profitability. These obstacles need to be taken in consideration by all stakeholders involved in organic farming and whether they are considered as barriers for farmers who did not adopt organic conversion.

5. Interrelationships amongst key stakeholders of organic farming are a cornerstone of effective growth and development of organic farming. It seems the disconnection between key stakeholders is the main reason for the slow development of the UK organic sector.

7.2.2 Recommendations for further research

According to the current literature and the issues raised from this research, there is a need for further research in key areas related to organic food production in the UK. The last section highlights key recommendations for additional research:

1. Include other stakeholders such as government, certification bodies and other agricultural agencies in the framework of this research may give more depth and understanding of how organic farming could be improved.

2. The relationship between consumers' education and their purchasing behaviour is an important issue. It is worthwhile to investigate how such relationship affect organic farming development. This may be conducted within the UK or in compare with other European countries.

3. Lack of continuous financial support and difficulty of accessed information may be key barriers for non-organic farmers to convert. This is might be a useful topic for further research.

4. Issues of climate change and the balance between local production and overseas imports may be open new doors for further studies.

5. It is important to establish researches in the area of breeding for releasing new cultivars suitable for organic food production. For example, breeding for pests (disease, weed and insect) resistance, release cultivars adapted for low soil fertility and breeding for improve food quality (proteins, vitamins *etc.*).

7.3 Contribution to Knowledge

This study has contributed to new knowledge in critical areas of the development of organic farming in the UK. The contributions include the following key findings:

1. There is a lack of information in the literature about interrelationships between key stakeholders of organic farming and its impact on organic farming development. This research was the first in assess and highlight some very interesting and exciting aspects of the interrelationships (connection, cooperation, collaboration and communication) between key stakeholders. It concluded that the growth and development of organic sector in the UK depends mainly on building good interrelationships between key stakeholders of the system. It also drawn out some critical factors in terms of how these components may influence the development of organic farming. All these issues were assessed by using mixed methods approach and triangulate findings from different aspects of the work.
2. Perceptions of key stakeholders about key issues of organic systems that may be critical to the future of organic farming in the UK were teased out assessed, compared and presented in a way, which may provide other

researchers or practitioners a different method of assessment the key findings of their research.

3. This research highlighted important areas for further research and opened new doors for more investigations in important topics of organic food production. This is definitely will help and guide other projects for more contribution to sciences and knowledge.

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APPENDIX 1

Questionnaires to organic farmers

Section 1

May we ask you to provide us with some information about yourself and your farm to put your answer in context?

1. Name .....

2. Age ..... Years

3. Gender male ☐ female ☐

4. How do you classify your farm in terms of productivity?

Small ☐ medium ☐ large ☐

5. What is the type of your farm?

Dairy ☐ livestock ☐ horticulture ☐ arable ☐ other.....

6. Are you the: owner ☐ tenant ☐

7. Did you have any formal training in organic farming prior to your decision to convert?

No formal training ☐

Organic farming course ☐

Agricultural college ☐

Farm walks/demonstrations ☐

University ☐

8. In which county is your farm based?

.....

.....

.....

Section 2

9. In what year did you start to convert to organic farming? ..... (Year).

10. How many years had you been a farmer when you decided to go organic?
..... (Years).

11. Which method of conversion do/did you use?

Whole-farm conversion ☐ Stage part-farm conversion ☐

12a. Have you ever seriously considered converting to organic farming before?

Yes ☐, in..... (year) no ☐

12b. if yes, what was the main reason for not converting at the time?

.....

13. When you decided to convert, was your financial situation?

Weak ☐ ok ☐ strong ☐

14. How has conversion affected your businesses?

	Large improvement	Small improvement	No change	Small deterioration	Substantial deterioration	Don't know
During conversion period						
After conversion period						

15a. How important were the following in your decision to convert?

	Not important ------- very important 1	2	3	4	5
Higher profits	☐	☐	☐	☐	☐
More environmental friendly	☐	☐	☐	☐	☐
Better public acceptance	☐	☐	☐	☐	☐
Health benefits for family	☐	☐	☐	☐	☐
Lifestyle	☐	☐	☐	☐	☐
Job satisfaction	☐	☐	☐	☐	☐
Professional challenge	☐	☐	☐	☐	☐
Publicity about food scares	☐	☐	☐	☐	☐
Grants from Organic Farming Scheme	☐	☐	☐	☐	☐

Higher prices for organic products ☐ ☐ ☐ ☐ ☐
Other (please specify)

..... ☐ ☐ ☐ ☐ ☐

15b. Which of the above factors were ***most*** important in influencing your decision?

.....

16. When you made the decision to convert, were there any particular aspects that caused you concern.

	Not concerned ------- very concerned 1 2 3 4 5
Lower profits	☐ ☐ ☐ ☐ ☐
Increased risk	☐ ☐ ☐ ☐ ☐
Complexity of organic production	☐ ☐ ☐ ☐ ☐
Unsuitable buildings/machinery	☐ ☐ ☐ ☐ ☐
Finding markets	☐ ☐ ☐ ☐ ☐
Lack of consumer demand	☐ ☐ ☐ ☐ ☐
Obtaining organically produced inputs (seeds, feeds *etc.*) at reasonable prices	☐ ☐ ☐ ☐ ☐
Access to information and advice	☐ ☐ ☐ ☐ ☐
Availability of labour	☐ ☐ ☐ ☐ ☐
Neighbours' reactions	☐ ☐ ☐ ☐ ☐
Reduced freedom through inspections	☐ ☐ ☐ ☐ ☐
More paper work	☐ ☐ ☐ ☐ ☐
Increased dependence on state subsides	☐ ☐ ☐ ☐ ☐
Cost of registration, inspection and membership of an organic certification body	☐ ☐ ☐ ☐ ☐
Other (please specify)	☐ ☐ ☐ ☐ ☐

17. How concerned are you about these issues ***now***?

	Not concerned ------- very concerned 1 2 3 4 5
Lower profits	☐ ☐ ☐ ☐ ☐
Increased risk	☐ ☐ ☐ ☐ ☐
Complexity of organic production	☐ ☐ ☐ ☐ ☐
Unsuitable buildings/machinery	☐ ☐ ☐ ☐ ☐
Finding markets	
Lack of consumer demand	☐ ☐ ☐ ☐ ☐
Obtaining organically produced inputs (seeds, feeds etc...) at reasonable prices	☐ ☐ ☐ ☐ ☐
Access to information and advice	☐ ☐ ☐ ☐ ☐
Availability of labour	☐ ☐ ☐ ☐ ☐
Neighbours' reactions	☐ ☐ ☐ ☐ ☐
Reduced freedom through inspections	☐ ☐ ☐ ☐ ☐
More paper work	☐ ☐ ☐ ☐ ☐
Increased dependence on state subsides	☐ ☐ ☐ ☐ ☐
Cost of registration, inspection and membership of an organic certification body	☐ ☐ ☐ ☐ ☐
Other (please specify)	
.....	☐ ☐ ☐ ☐ ☐

Section 3

18. Which are your main marketing channels?

	Not important.....Very important				
	1	2	3	4	5
Marketing co-operative	☐	☐	☐	☐	☐
Organic wholesale or pack house	☐	☐	☐	☐	☐
Supermarket contract	☐	☐	☐	☐	☐
Contract with processing industry	☐	☐	☐	☐	☐
Farm shop	☐	☐	☐	☐	☐
Farmers' market	☐	☐	☐	☐	☐
Box scheme	☐	☐	☐	☐	☐
Local shops	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐

19a. Do you have a supermarket contract to sell your product?

Yes ☐ no ☐

19b. If yes, are you satisfied with the received price from supermarket?

.....

19c. If no, how do you sell your products?

Farmer's market ☐ small shops ☐ box schemes ☐

Other (please specify)

.....

20. In your opinion, do you think the cooperation/relationships between organic farmers and consumers, organic farmers and retailers will have significant effect on development of organic farming systems in this country?

Yes ☐ no ☐ don't know ☐

21a. has conversion to organic farming resulted in any marketing or food processing on your farm?

Yes ☐ no ☐

21b. if yes, please specify briefly?

.....

22. Could anything be done to improve the marketing of organic products?

.....

.....

23. Do you feel that, at the time you decided to convert, your knowledge of organic agriculture was sufficient to make a well-informed decision?

Yes ☐ No ☐ don't know ☐

24. How important were each of these sources of information in helping you to decide to convert?

Converted without information ☐

	Not important ------- very important				
	1	2	3	4	5
Other organic farmers(s)	☐	☐	☐	☐	☐
ADAS	☐	☐	☐	☐	☐
MAFF/DEFRA's OCIS help line	☐	☐	☐	☐	☐
Elm Farm Research Centre	☐	☐	☐	☐	☐
Soil Association	☐	☐	☐	☐	☐
Private consultant	☐	☐	☐	☐	☐
Agricultural press	☐	☐	☐	☐	☐
Internet	☐	☐	☐	☐	☐
Organised farm walks	☐	☐	☐	☐	☐
Training course	☐	☐	☐	☐	☐
Other (please specify)					
.....	☐	☐	☐	☐	☐

25. How difficult did you find it to access the information you wanted?

1	2	3	4	5
☐	☐	☐	☐	☐

Very easy.....very difficult

26. If you find yourself having a husbandry or marketing problem now, who do you turn to for help and advice?

Have no one to turn to ☐

	Not important ------- very important 1	2	3	4	5
Other organic farmers(s)	☐	☐	☐	☐	☐
ADAS	☐	☐	☐	☐	☐
MAFF/DEFRA's OCIS help line	☐	☐	☐	☐	☐
Elm Farm Research Centre	☐	☐	☐	☐	☐
Soil Association	☐	☐	☐	☐	☐
Private consultant	☐	☐	☐	☐	☐
Agricultural press	☐	☐	☐	☐	☐
Internet	☐	☐	☐	☐	☐
Organised farm walks	☐	☐	☐	☐	☐
Training course	☐	☐	☐	☐	☐
Other (please specify)					
.....	☐	☐	☐	☐	☐

27. What would you have done if no grants for organic conversion had been available?

Would have converted anyway	
Would have converted a smaller part of the farm	
Would have diversified in other ways	
Would have specialised and intensified in conventional production	
Would have taken part in other agri-environmental schemes such as ESA or countryside Stewardship	
Would have carried on as before	
Would have given up farming altogether	
Other (please specify)	

28a. Have you ever regretted converting to organic farming? Yes ☐ no ☐

28b. If yes, for what reasons?

.....

.....

29a. Are you seriously considering converting back to conventional farming.

Yes ☐ no ☐

29b. If yes, which of the following would persuade you to stay organic?

	Wouldn't persuade me	Might persuade me	Would definitely persuade me	Don't know
Ongoing financial support for certified organic				
Improved and free advisory service				
Membership in organic marketing cooperative				
Contract with supermarket				
Other (please specify)				

30. In your opinion, what is the single most important barrier to the development of the organic sector in this country?

.....
.....
.....

31. If you wish to make any additional comments, please use the space below:

.....
.....
.....
.....

Would you mind us contacting you for further clarification?

Name: Telephone:

Please put the questionnaires in the freepost envelope provided.

Thank you very much for your time and effort! The results will help us to have a better understanding of the reasons why farmers convert to organic farming. We will use this information to make recommendations to the policy makers for improving the organic farming sector in this country.

APPENDIX 2

Frequencies for selected quantitative variables

Farmers' motivations toward conversion

High profits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	38	16	17	17
	little important	28	12	13	30
	moderate important	56	24	25	55
	important	44	19	20	74
	very important	56	24	25	100
	Total	222	94	100	
Missing	System	15	06		
Total		237	100		

More environmental friendly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	10	42	05	04
	little important	06	25	03	07
	moderate important	16	07	07	14
	important	62	26	27	41
	very important	133	56	59	100
	Total	227	96	100	
Missing	System	10	04		
Total		237	100		

Better public acceptance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	28	12	13	13
	little important	18	08	08	21
	moderate important	55	23	25	46
	important	65	27	30	76
	very important	54	23	25	100
	Total	220	93	100	
Missing	System	17	07		
Total		237	100		

Health benefits for family

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	20	08	09	09
	little important	14	06	06	15
	moderate important	48	20	22	37
	important	51	22	23	60
	very important	88	37	40	100
	Total	221	93	100	
Missing	System	16	07		
Total		237	100		

Lifestyle

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	32	14	14	14
	little important	16	07	07	22
	moderate important	49	21	22	44
	important	56	24	25	69
	very important	70	30	31	100
	Total	223	94	100	
Missing	System	14	06		
Total		237	100		

Job satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	12	05	05	05
	little important	08	03	04	09
	moderate important	25	11	11	20
	important	69	29	31	51
	very important	108	46	49	100
	Total	222	94	100	
Missing	System	15	06		
Total		237	100		

Professional challenge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	24	10	11	11
	little important	09	04	04	15
	moderate important	50	21	23	38
	important	66	28	30	67
	very important	72	30	33	100
	Total	221	93	100	
Missing	System	16	07		
Total		237	100		

Publicity about food scares

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	46	19	21	21
	little important	29	12	13	34
	moderate important	74	31	34	68
	important	36	15	16	85
	very important	34	14	16	100
	Total	219	92	100	
Missing	System	18	08		
Total		237	100		

Grant from organic farming scheme

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	54	23	24	24
	little important	23	10	10	35
	moderate important	36	15	16	51
	important	52	22	23	74
	very important	57	24	26	100
	Total	222	94	100	
Missing	System	15	6		
Total		237	100		

Higher prices for organic products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	25	11	11	11
	little important	12	05	05	17
	moderate important	48	20	22	65
	important	58	25	26	100
	very important	78	33	35	
	Total	221	93	100	
Missing	System	16	07		
Total		237	100		

Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	03	01	05	05
	little important	02	01	03	08
	moderate important	02	01	03	12
	important	04	02	07	18
	very important	49	21	82	100
	Total	60	25	100	
Missing	System	177	75		
Total		237	100		

Most important factor decision to convert

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	profits	27	11	13	13
	environment	73	31	35	48
	public acceptance	10	04	05	53
	health	13	06	06	59
	lifestyle	06	03	03	62
	job satisfaction	09	04	04	67
	professional challenge	13	06	06	73
	publicity about food scares	01	01	01	73
	grant from organic farming scheme	11	05	05	79
	higher prices of organic products	11	05	05	84
	other	33	14	16	100
	Total	207	87	100	
Missing	System	30	13		
Total		237	100		

Overall farmers' motivations towards organic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10-20	03	01	01	01
	21-30	34	14	16	18
	31-40	120	51	58	76
	41-50	50	21	24	100
	Total	207	87	100	
Missing	System	30	13		
Total		237	100		

Farmers' concerns before conversion

Low profits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	53	22	25	25
	little concern	30	13	14	39
	moderate concern	78	33	37	76
	concern	30	13	14	90
	very concern	22	09	10	100
	Total	213	90	100	
Missing	System	24	10		
Total		237	100		

Increased risk

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	43	18	20	20
	little concern	30	13	14	34
	moderate concern	59	25	27	61
	concern	61	26	28	90
	very concern	22	09	10	100
	Total	215	91	100	
Missing	System	22	09		
Total		237	100		

Complexity of organic production

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	42	18	19	19
	little concern	37	16	17	36
	moderate concern	48	20	22	58
	concern	61	26	28	86
	very concern	32	14	15	100
	Total	220	93	100	
Missing	System	17	07		
Total		237	100		

Unsuitable building/machinery

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	82	35	39	39
	little concern	45	19	21	60
	moderate concern	52	22	25	85
	concern	24	10	11	96
	very concern	08	04	04	100
	Total	211	89	100	
Missing	System	26	11		
Total		237	100		

Finding markets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	42	18	19	19
	little concern	39	17	18	37
	moderate concern	46	19	21	57
	concern	58	25	26	84
	very concern	36	15	16	100
	Total	221	93	100	
Missing	System	16	07		
Total		237	100		

Lack of consumer demand

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	59	25	27	27
	little concern	43	18	20	47
	moderate concern	51	22	24	71
	concern	42	18	19	90
	very concern	22	09	10	100
	Total	217	92	100	
Missing	System	20	08		
Total		237	100		

Obtaining organically produced input at reasonable price

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	26	11	12	12
	little concern	44	19	20	32
	moderate concern	49	21	23	55
	concern	58	25	27	81
	very concern	41	17	19	100
	Total	218	92	100	
Missing	System	19	08		
Total		237	100		

Access to information and advice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	49	21	26	23
	little concern	51	22	23	46
	moderate concern	67	28	31	77
	concern	37	16	17	94
	very concern	14	06	06	100
	Total	218	92	100	
Missing	System	19	08		
Total		237	100		

Availability of labour

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	86	36	39	39
	little concern	39	16	18	57
	moderate concern	53	22	24	82
	concern	25	11	12	93
	very concern	15	06	07	100
	Total	218	92	100	
Missing	System	19	08		
Total		237	100		

Neighbours' reactions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	133	56	61	61
	little concern	38	16	18	79
	moderate concern	31	13	14	93
	concern	06	03	03	96
	very concern	09	04	04	100
	Total	217	92	100	
Missing	System	20	08		
Total		237	100		

Reduced freedom through inspections

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	55	23	25	25
	little concern	41	17	19	44
	moderate concern	56	24	26	70
	concern	41	17	19	89
	very concern	25	11	12	100
	Total	218	92	100	
Missing	System	19	08		
Total		237	100		

More paper work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	28	12	12	12
	little concern	17	07	08	20
	moderate concern	42	18	19	39
	concern	62	26	27	66
	very concern	77	33	34	100
	Total	226	95	100	
Missing	System	11	05		
Total		237	100		

Increased dependence on state subsides

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	83	35	39	39
	little concern	30	13	14	53
	moderate concern	51	22	24	77
	concern	32	14	15	92
	very concern	17	07	08	100
	Total	213	90	100	
Missing	System	24	10		
Total		237	100		

Cost of registration, inspection and membership of an organic certification body

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	17	07	08	08
	little concern	34	14	15	23
	moderate concern	57	24	26	49
	concern	56	24	25	74
	very concern	57	24	26	100
	Total	221	93	100	
Missing	System	16	07		
Total		237	100		

Other 16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	little concern	1	01	04	04
	moderate concern	2	01	09	13
	concern	5	02	22	35
	very concern	15	06	65	100
	Total	23	10	100	
Missing	System	214	90		
Total		237	100		

Overall concerns before conversion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not concern	9	04	05	05
	little concern	31	13	16	21
	moderate concern	67	28	34	55
	concern	67	28	34	89
	very concern	20	08	10	100
	Total	01	01	01	100
Missing	System	195	82	100	
Total		42	18		
		237	100		

Interrelationships between stakeholders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	187	79	81	81
	No	16	07	07	88
	Don't know	25	11	11	99
	4.00	01	01	01	100
	11.00	01	01	01	100
	Total	230	98	100	
Missing	System	07	03		
Total		237	100		

Sufficiency of knowledge before going in conversion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	46	19	21	21
	No	160	68	72	92
	Don't know	17	07	08	100
	Total	223	94	100	
Missing	System	14	06		
Total		237	100		

Importance of available source of information

Converted without information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	converted without	26	11	12	12
	seek information	196	83	88	100
	5.00	01	01	01	100
	Total	223	94	100	
Missing	System	14	06		
Total		237	100		

Other organic farmer(s)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	26	11	14	14
	little important	11	05	06	20
	moderate important	44	19	24	44
	important	55	23	30	74
	very important	47	20	26	100
	Total	183	77	100	
Missing	System	54	23		
Total		237	100		

ADAS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	103	44	62	62
	little important	16	07	10	72
	moderate important	30	13	18	90
	important	15	06	09	99
	very important	02	01	01	100
	Total	166	70	100	
Missing	System	71	30		
Total		237	100		

MAFF/DEFRA's OCIS help line

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	65	27	39	39
	little important	25	11	15	53
	moderate important	45	19	27	80
	important	23	10	14	94
	very important	11	05	07	100
	Total	169	71	100	
Missing	System	68	29		
Total		237	100		

ELM farm research centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	24	10	14	14
	little important	18	08	10	24
	moderate important	42	18	24	48
	important	46	19	26	73
	very important	47	20	27	100
	Total	177	75	100	
Missing	System	60	25		
Total		237	100		

The Soil Association

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	10	04	05	05
	little important	15	06	08	13
	moderate important	43	18	23	36
	important	65	27	34	70
	very important	57	24	30	100
	Total	190	80	100	
Missing	System	47	20		
Total		237	100		

Private consultant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	96	41	57	57
	little important	17	07	10	67
	moderate important	13	06	08	75
	important	30	13	18	93
	very important	12	05	07	100
	Total	168	71	100	
Missing	System	69	29		
Total		237	100		

Agriculture press

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	69	29	41	41
	little important	36	15	21	62
	moderate important	41	17	24	86
	important	18	08	11	97
	very important	05	02	03	100
	Total	169	71	100	
Missing	System	68	29		
Total		237	100		

Internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	104	44	64	64
	little important	26	11	16	80
	moderate important	15	06	09	90
	important	10	04	06	96
	very important	07	03	04	100
	Total	162	68	100	
Missing	System	75	32		
Total		237	100		

Organic farm walks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	49	21	28	28
	little important	18	08	10	39
	moderate important	34	14	20	58
	important	42	18	24	83
	very important	30	13	17	100
	Total	173	73	100	
Missing	System	64	27		
Total		237	100		

Training course

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	74	31	47	47
	little important	30	13	19	65
	moderate important	16	07	10	76
	important	26	11	16	92
	very important	13	06	08	100
	Total	159	67	100	
Missing	System	78	33		
Total		237	100		

Other for question 24

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not important	02	01	09	09
	important	05	02	23	32
	very important	15	06	68	100
	Total	22	09	100	
Missing	System	215	91		
Total		237	100		

Difficulties of getting information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very easy	36	15	16	16
	easy	63	27	29	45
	moderate difficulty	76	32	35	80
	difficult	30	13	14	94
	very difficult	13	06	06	100
	12	01	01	01	100
	Total	219	92	100	
Missing	System	18	08		
Total		237	100		

No grant available

		Freq.	%	Valid %	Cum %
Valid	would have convert any way	111	47	51	51
	would have converted a small part of the farm	17	07	08	59
	would have diversified in other ways	22	09	10	69
	would have intensified in conventional production	08	03	04	73
	would have taken part in other agri-environmental schemes	22	09	10	83
	would have carried on as before	19	08	09	92
	would have given up farming altogether	07	03	03	95
	other	11	05	05	100
	Total	217	92	100	
Missing	System	20	08		
Total		237	100		

The aim of the main food retailers is to support organic farmers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	03	01	02	02
	agree	04	02	02	04
	disagree	131	55	70	73
	strongly disagree	50	21	27	100
	Total	188	79	100	
Missing	System	49	21		
Total		237	100		

Impact of interrelationships on organic farming development (OFD)

Interrelationships increase amount of food consumption

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	23	10	12	12
	agree	163	69	87	99
	disagree	02	01	01	100
	Total	188	79	100	
Missing	System	49	21		
Total		237	100		

Interrelationships increase amount of land in conversion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	26	11	14	14
	agree	159	67	85	98
	disagree	02	01	01	100
	strongly disagree	01	01	01	100
	Total	188	79	100	
Missing	System	49	21		
Total		237	100		

Interrelationships increase amount of local products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	21	09	11	11
	agree	167	71	89	100
	Total	188	79	100	
Missing	System	49	21		
Total		237	100		

Import strategy is a barrier to organic farming development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	164	69	87	87
	no	01	01	01	88
	don't know	23	10	12	100
	Total	188	79	100	
Missing	System	49	21		
Total		237	100		

APPENDIX 3

Interviews with representatives of four supermarkets

Interview 1

Supermarket 1

Interviewer: Supermarkets are the dominant channels through which UK consumers purchase organic food. In your opinion, what motivate retailers to sell organic food? What are your strategies?

Respondent: To give (more choice and broad appeal to our consumers.)[RM] Also, to (provide a cheap food with good quality.)[RM] Profitability is not a priority for us.

Interviewer: It has been indicated that an aim of the main food retailers in UK is to support and encourage to UK producers in conversion to organic farming. Do you support this? If so, what kind of support you provides

Respondent: (Yes I do.)[FS]

We support the organic programme at the University of Newcastle. This programme (running specific research)[FS] to help organic farmers. Also, it is (running workshop)[FS] for organic farmers to encourage them toward conversion.(We support organic action plan)[FS] - make it accessible for farmers. We (influence government)[FS] to provide financial support to the organic farmers.

Interviewer: Do the supermarkets pay a fair price to organic farmers?

Respondent: (Yes we do.)[FS] It is not our strategy to push the price down.

Interviewer: How would you respond to claims by organic farmers that the supermarkets fail to pay fair prices for their products?

Respondent: We always hear these complain even from conventional farmers. The British (producers should be competitive.)[FS]

Interviewer: Do you have any contract with organic farmers?

Respondent: Formal contract is (not exist)[FS].

Interviewer: In your opinion, how important are the producer/retailer relationships? Do they affect organic farming development?

Respondent: (Yes I agree.)[Int] without this interrelationship, both of them will work differently. This kind of relationships will (lead to sustainability.)[Int] We do have good relationship with producers. We have regular conference with producers and growers and (we hear to producers and growers.)[Int] However, producers always concern about quality specification and price.

Interviewer: Do organic farmers meet your grades and specification?

Respondent: (Not always.)[Int] Our specification is related to quality.

Interviewer: How do you define quality?

Respondent: We define quality as the (appearance, shape, size and packaging)[Int] of product. We always (keep change specification)[FS] to encourage farmers. We are flexible

Interviewer: How much of the organic food on your shelf is imported and how much locally produced?

Respondent: It depends on time of year and availability. The following are the products which locally sourced:

Salad	40% [LOC.]
Cucumber	40% [LOC.]
Pepper	20% [LOC.]
Tomatoes	40% [LOC.]
Peas & Beans	20% [LOC.]
Broccoli	40% [LOC.]
Cabbage	50% [LOC.]
Carrot	80% [LOC.]
Co flower	45% [LOC.]
Mushroom	100% [LOC.]
Onion	100% [LOC.]
Potato	60% [LOC.]
Meat (pork)	39% [LOC.]
Beef	37% [LOC.]
Lamb	90% [LOC.]

Interviewer: Do you think demand for organic food in the UK has been satisfied? If no how can, you satisfy increased demand.

Respondent: I would say (NO.)[S/D] We satisfy increased demand by (provides food)[S/D] with good quality (mainly from overseas.)[S/D] We are making sure every thing is available for our consumers. We bring food much cheaper. (Buy cheap... sell cheap)[S/D]

Interviewer: Is there any conflict between import and local production.

Respondent: (Not at all.)[IMP] Producers grow their product for local market. However, we should give our consumers what they want; otherwise, the market will go down. There is no influence for the local production on retailers. We ask our suppliers to (use local products) [IMP] if available. If not they will import it and we depend on them to manage that. We always listen to growers but (local production)[IMP] is not enough and there is no influence for the local production on retailers. This why we continue importing. It also related to the mentality of farmers and growers

(they said: because we produce it here, you have to buy it). Another reason behind importing food from out side is because our (consumers like to buy it.)[IMP] we sell the products much cheaper and that is due to the high volume we import.

Interviewer: How do local distribution channels (local shops, farm shops, and box schemes) contribute to expanding of the home market?

Respondent: (It is very minimal)[LSC], very limit contribution. The contribution of local distribution channels estimated to be 2% compared with about 70% from retailers. Consumer prefers to shop from supermarket because it is more convenient. But it is important to see the local distribution channels grow.

Interviewer: In your opinion, what are the key drivers for supply and demand of UK produced organic food.

Respondent: I would say (good quality land, availability and financial support)[S/D] from government are the key drivers for supply and demand of UK produced organic food. However, there is no good quality land because of no longer financial support.

Interviewer: How do consumers, producers and retailers influence the supply chain of organic food in the UK?

Respondent: Mainly it is (consumer driven)[S/D] Consumers need the products to be available, in good quality with good price. We give consumers what they need to keep them coming to store. (Retailers and producers are shaping the supply chain)[S/D].

Interviewer: Why does the perceived healthier option of organic food generally retail at a higher price?

Respondent: That is due to the (cost of production)[PRC] (low yield, quality, labour, rotation, seeds *etc.*). Communication with consumers is a key factor. We influence our consumers to understand the high price of the organic food.

Interviewer: From a retailer's perspective, what are the key motives for the consumers to buy organically produced food?

Respondent: (Taste, health and environment)[CM] are the main motivations for organic consumers.

Interviewer: From a retailer's perspective, what are the key drivers to their consumers buying organically produced food?

Respondent: Consumers believe organic food (taste better)[CM], (less contaminated)[CM] by pesticides, not contains GMO. These are the main drivers for most consumers.

Interviewer: Are there any barriers?

Respondent: I would say (prices and availability)[CB] are the main barriers for consumers to buy organic.

Interviewer: Is there anything that you think should be done to improve the marketing of organic products in this country?

Respondent: Cooperation between the main stakeholders is the key for improvement of the organic sector.

Interviewer: Do you have any additional comments?

Respondent: No

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Interview 2

Supermarket 2

Interviewer: Supermarkets are the dominant channels through which UK consumers purchase organic food. In your opinion, what motivate retailers to sell organic food? What are your strategies?

Respondent: Our motivation is to give our customers the opportunity to make the (organic choice)^{RM} across the store with a reliable and affordable offer that is always available (Driving choice agenda). We also looking to offer our customers a choice of easily identifiable, good quality organic options which taste as good as similar non-organic equivalents; or preferably better; and provide organic status re-assurance. We never beaten on price (We do not lead the market price).

Interviewer: Do you think "profitability" is not priority for you?

Respondent: (Not at all)^{RM} It is an issue of buyers not for us.

Interviewer: It has been indicated that an aim of the main food retailers in the UK is to support and encourage to UK producers in conversion to organic farming. Do you support this?

Respondent: (Yes we do)^{FS}

Interviewer: How do you support organic farmers? What kinds of Support?

Respondent: We support them by (provides listening conferences)^{FS} to organic farmer, an(increased marketing budget)^{FS} to promote British produce and the (introduction of cost-plus schemes)^{FS} on produce guaranteeing farmers a good return. We are seeking to recruit and (work with grater numbers of producers and growers)^{Int}.

Interviewer: Do the supermarkets pay a fair price to organic farmers?

Respondent: (Yes we pay them fair price)^{FS}

Interviewer: How would you respond to claims by organic farmers that the supermarkets fail to pay fair prices for their products?

Respondent: I think we need to work closely with our suppliers to take cost out of their business.

Interviewer: In your opinion, how important are the producer/retailer and consumers/retailer relationships? And how it they affect the organic farming development?

Respondent: Absolutely, it is (very important.)[Int] There is a lack of understanding what organic food is. Customers need to be educated. We (provide our customers with specific magazines)[Int] which give them broad understanding of the value of organic food. Regarding farmers; (there are commercial relationships)[Int] which done by trader.

Interviewer: Do organic farmers meet your grades and specification?

Respondent: (Yes they do)[Int]

Interviewer: What are your specifications?

Respondent: (Size, colour, shape and packaging)[Int] requirements are the main grades and specification for us. We do have quality inspector as we define quality as the appearance of products.

Interviewer: How much of the organic food in your shelf is imported and how much locally produced?

Respondent: Most of our organic products are imported, let says (70-80%)[IMP]

Interviewer: Do you think demand for organic food in the UK has been satisfied? If not how can you, satisfy increased demand?

Respondent: (Not yet)[S/D]. I think we do not have supply base in the UK to deliver what volume we need consistently. However, an (identify gap between supply and demand)[S/D] is a major factor to understand why the demand has not been satisfied. I think many retailers do not give more choices for customers. We believe that, (having a good range of organic products in our shelf)[S/D] is one way of satisfy demand. Life style and (understanding)[S/D] of organic food are also key factors in increase demand.

Interviewer: Is there any conflict between import and local production?

Respondent: (I do not think so)[IMP]. We import organic food from outside because it is cheaper.

Interviewer: Do you think the overseas supply chains negatively affect the local production and cost customers additional expenses?

Respondent: (Not at all)[IMP] because the overseas product is more cheap than the local product and do not cost customers additional expenses. For example, we do have 12 million of our customers visit sore weekly and the price is not always the most critical factors for all consumers. Convenience and availability are the most important factors for them and we try to make every thing available for our customers.

Interviewer:	How do local distribution channels (local shops, farm shops, and box schemes) contribute to expanding of the home market?
Respondent:	I think the contribution of these channels is (very small)[LSC], but they are important. Some of these local channels supply independent retailers.
Interviewer:	Any idea why these channels were emerged?
Respondent:	I think because (people may prefer to buy organic food directly from producers)[LSC] such as farms shops and farmers' market because they like that.
Interviewer:	In your opinion, what are the key drivers for supply and demand of UK produced organic food?
Respondent:	For supply: It is around the (availability of organic land and organic stock)[S/D]. For demand: It is around (price, availability and understanding)[S/D] of the value of organic food.
Interviewer	How do consumers, producers and retailers influence the supply chain of organic food in the UK?
Respondent:	It is (depend on consumption)[S/D]. If customer needs it both producers and retailers have to provide it. We do not carry products which we do not need it.
Interviewer:	Could we say it is consumer's driven?
Respondent:	(Yes of course)[S/D]
Interviewer:	Why does the perceived healthier option of organic food generally retail at a higher price?
Respondent:	Simply because of (production costs)[PRC]
Interviewer:	Rather than production costs, is there any other reason, such as import expenses?
Respondent;	(I do not think so)[S/D] Import expenses are not reason.
Interviewer:	From a retailer's perspective, what are the key motives for the consumers to buy organically produced food?
Respondent:	(Food safety and health)[CM] concerns are the main motivation for consumers.

Interviewer: are there any barriers?

Respondent: I think (price)^{CB} is the main barriers. (Availability)^{CB} and lack of (knowledge)^{CB} about organic are also become significant barriers.

Interviewer: From a retailer's perspective, what are the key drivers to their consumers buying organically-produced food?

Respondent: (Easy to find)^{CM}, (availability)^{CM} (available today rather than tomorrow) and (trust perspectives)^{CM} are the key drivers to organic consumers. Also, (Consistency)^{CM} (less amount with consistent is better than huge amount without consistent) and communicate of the benefit of organic are key drivers.

Interviewer: Is there any thing that you think should be done to improve the marketing of organic products in this country?

Respondent: Yes indeed, there is massive for us to (convince consumers to buy organic foods)^{Int} Using magazines, radio stations and all media to educate people about organic is a key factor in improving the marketing of organic foods. We are developing programme in the stores talked to people about the value of organic foods.

Interviewer: Do you have any additional comments?

Respondent: I would say, as production increase the price will go down automatically so price in short term is not an issue. I also think that people do not seriously believe that organic food is better than conventional food and we need to educate our customers. Finally, food is not important for UK people compared with other European countries like France and Italy. This may explain why we have seen huge amount of European consumers give attention to organic foods. Eating in UK is rational.

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Interview 3

Supermarket 3

Interviewer: Supermarkets are the dominant channels through which UK consumers purchase organic food. In your opinion, what motivate retailers to sell organic food? What are your strategies?

Respondent: It is mainly a (consumer demand)^{RM}, consumers ask for products and we try to make it affordable. Also, giving our consumers (broader choice) ^{RM} of great products at fair prices is one of our major motivations.

Interviewer: It has been indicated that an aim of the main food retailers in the UK is to support and encourage to UK producers in conversion to organic farming. Do you support this?

Respondent: (Yes I do support this statement)^{FS}

Interviewer: How do you support organic farmer? What kind of support you provides?

Respondent: We do have good work to give confidence to producers. For examples:

(47% of the indigenous product is produced in the UK)^{FS}
100% of organic chicken, beef, eggs, pork, lamb and milk come from British farms. We are continually (increasing the level of British sourced organic food)^{FS} across the entire range.
Sometimes we (take more harvest products without looking for quality) ^{FS} and this is another kind of encouragement to organic producers. We also (encourage people to buy organic.)^{FS}
All this encourage farmers to conversion.

Interviewer: Do the supermarkets pay a fair price to organic farmers?

Respondent: (Yes we do.)^{FS}

Interviewer: How would you respond to claims by organic farmers that the supermarkets fail to pay fair prices for their products?

Respondent: We do not believe in subsidising the retail price of organic food – (it passes back a fair return to the farmer)^{FS} whilst reflecting the true cost of organic production to customers. (We give farmers confidence to continue expanding.)^{FS} (The price of about 100 organic foods has been cut)^{FS} and we believe that as the UK organic market grows, prices will stabilise.

Interviewer: In your opinion, how important is the producer/retailer relationships? And how it they affect the organic farming development?

Respondent	I think such relationships are (very important [Int.] It will lead to expand of converted land. We have long tradition of working closely with our suppliers to build mutually beneficial relationships. We do have (regular conferences with our producer)[Int.] What we are looking for is to deliver unparalleled service to our customers, and we are (work closely with our suppliers)[Int.] to achieve that.
Interviewer	Do organic farmers meet your grades and specification?
Respondent	(Yes they do.)[Int.]
Interviewer	What is your specification?
Respondent	Sainsbury consider (taste, fat content, shelf life, good eat, breed, varieties and appearance)[Int.] as the major grades and specifications of organic products.
Interviewer	How much of the organic food in your shelf is imported and how much locally produced?
Respondent	About (67% of indigenous products sold in our stores come from British farms.)[IMP] Vegetables, beef, lamb, chicken, eggs *etc.* all produced in UK. However, we import other products which we can not grow here like (banana, mango etc…)[IMP]
Interviewer	Do you think demand for organic food in the UK has been satisfied? If no how can you satisfy increased demand?
Respondent	(I would say NO.) [S/D] However, soil association indicated that 77% of organic demand has been satisfied this year. We satisfy the increased demand by (imported more volume)[S/D]
Interviewer	Is there any conflict between import and local production?
Respondent	(Our customers like to buy local products)[IMP] and we try to maintain UK base. In terms of conflict, I would say there is a price conflict.
Interviewer	How do local distribution channels (local shops, farm shops, and box schemes) contribute to expanding of the home market?
Respondent	No answers; refer to soil association, organic market report, 2005. The report concluded that the contribution of local distribution channels in the home market during 2004 was as follow: Retail sales through direct sale and alternative market outlets were worth an estimated (£144 millions in 2004, growing by 33.3%)[LSC] on the previous year. Multiple retailers share was 75% in 2004.

Interviewer	In your opinion, what are the key drivers for supply and demand of UK produced organic food?
Respondent	(Health, taste and Britishness)$^{S/D}$ are the drivers for supply and demand of UK produced organic food.
Interviewer	How do consumers, producers and retailers influence the supply chain of organic food in the UK?
Respondent	Basically, consumers demand product and retailers influence supply chains to produce the products. It is (consumers driven)$^{S/D}$
Interviewer	Why does the perceived healthier option of organic food generally retail at a higher price?
Respondent	That is because of the (high cost of production only.)^{PRC} There are no other reasons.
Interviewer	From a retailer's perspective, what are the key motives for the consumers to buy organically produced food?
Respondent	(Taste, health concerns and Britishness)^{CM} are the main key motivations for consumers to buy organic foods.
Interviewer	Are there any barriers?
Respondent	(Availability and price)^{CB} (for some consumers, not all consumers) are the main barriers. However, the prices of some key organic everyday lines like eggs, milk, bread and cheese have been lowered. But, Income is a key for the ability of consumers to buy the product.
Interviewer	From a retailer's perspective, what are the key drivers to their consumers buying organically-produced food?
Respondent	Again, (food scares, health issues, taste, environment and Britishness)^{CM} are the main drivers for organic consumers.
Interviewer	Is there any thing that you think should be done to improve the marketing of organic products in this country?
Respondent	No answers; refer to soil association, organic market report, 2005.
Interviewer	Do you have any additional comments?
Respondent	No

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Interview 4 (Email)

Supermarket 4

Interviewer:	Supermarkets are the dominant channels through which UK consumers purchase organic food. In your opinion, what motivate retailers to sell organic food? What are your strategies?
Respondent:	Our strategy is to be the leading local convenience retailer, which will (provide our customers with their core shopping needs)^{RM}. Organics is part of that offer especially in our Market fresh store formats e.g. Edgware Road.
Interviewer:	It has been indicated that an aim of the main food retailers in the UK is to support and encourage to UK producers in conversion to organic farming. Do you support this?
Respondent:	(Yes we do)^{FS}
Interviewer:	What kind of support you provides?
Respondent:	We encourage producers to convert to organic buy (building long term supplier relationships)^{FS}
Interviewer:	Do the supermarkets pay a fair price to organic farmers?
Respondent:	(Prices paid for organic products are a fair)^{FS} reflection of current economic market conditions at the time.
Interviewer:	How would you respond to claims by organic farmers that the supermarkets fail to pay fair prices for their products?
Respondent:	Based on the current market condition, (farmers receive good prices for their products)^{FS}
Interviewer:	In your opinion, how important are the producer/retailer relationships? And how do they affect the organic farming development?
Respondent:	It is our strategy is to (develop long term supplier relationships)^{Int} with all of its suppliers; with this in mind it is possible to develop long term supply options that would include sustainable land conversion programs for future supply.
Interviewer:	Do organic farmers meet your grades and specification?
Respondent:	(All grades and specifications for products are decided collaboratively between us and our suppliers)^{Int}

Interviewer: How much of the organic food in your shelf is imported and how much locally produced?

Respondent: Due to a limited UK supply, due to the amount of land available in organic production in the UK, the current ratio is (70%)^{IMP} imported and (30%)^{Loc} UK produced, however, when and where possible we will support and purchase product from UK producers.

Interviewer: Do you think demand for organic food in the UK has been satisfied? If no how can you satisfy increased demand?

Respondent: The organic market is growing at circa 20% year on year, which suggests (it has not been satisfied yet)$^{S/D}$ we do and will offer a selected core range of products to our customers, which (will support our strategy of being a local convenience retailer)$^{S/D}$

Interviewer: Is there any conflict between import and local production?

Respondent: Until UK supply can compete on availability of certain products, which will happen in time, (there is no conflict)^{IMP} that we are aware of.

Interviewer: How do local distribution channels (local shops, farm shops, and box schemes) contribute to expanding of the home market?

Respondent: They (offer the consumer an alternative-purchasing route)^{LSC} outside of supermarkets and help increase awareness on a localised basis.

Interviewer: In your opinion, what are the key drivers for supply and demand of UK produced organic food?

Respondent: Farming, especially (smallholdings, is in decline)$^{S/D}$; in terms of diversification organically produced goods deliver (a premium)$^{S/D}$, which enables sustainability in the long term.

Interviewer: How do consumers, producers and retailers influence the supply chain of organic food in the UK?

Respondent: (Consumers have the biggest impact)$^{S/D}$ on supply chain because of demand; strong market growth has led to (producers, at certain times of the year struggling to meet this demand)$^{S/D}$ It is the (retailer's responsibility to ensure 100% availability)$^{S/D}$ of the range for its customers throughout the year.

Interviewer: Why does the perceived healthier option of organic food generally retail at a higher price?

Respondent: Because supply is still not satisfying demand, which is due to a lack of converted land in production with (lower yields)^{PRC} from crops and (higher labour costs)^{PRC}

Interviewer: From a retailer's perspective, what are the key motives for the consumers to buy organically produced food?

Respondent: Chemically pesticide free (healthier)^{CM}, (environmentally more sustainable)^{CM} than conventional farming practices.

Interviewer: From a retailer's perspective, what are the key drivers to their consumers buying organically produced food?

Respondent: Supporting a (healthier more environmentally friendly)^{CM} farming (ethic)^{CM} that also incorporates elements of "Fairtrade".

Interviewer: Is there any thing that you think should be done to improve the marketing of organic products in this country?

Respondent: Continued (media coverage)^{Int} in balance with (increased supply)^{Int} will help drive future growth for organic products in the UK.

Interviewer: Do you have any additional comments?

Respondent: No.

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APPENDIX 4

Interview with representative of the Soil Association

1. Organic Consumers

Interviewer: In your opinion, what are the key motives for the consumers to buy organically produced food?

Respondent: I would say (health) ^{CM} is the main motivation followed by (environment) ^{M} protection, (animal welfare) ^{M}, (food safety)^{M}, (avoid GMO)^{M} These entire thing explain why people push the way in organic.

Interviewer: Are there any barriers or constraints, which may stop consumers from buying organic food?

Respondent: (COST is the major barriers) ^{CB}. This is what we always hear from consumers

Interviewer: Why does the perceived healthier option of organic food generally retail at a higher price?

Respondent: I think people should understand why organic food is retail at higher price. About £2.5 million per year spent just for clean up the soil. (Water and environment pollution)^{PR} are major thing in price increase. The people need to know of the real cost of food, not only the production cost but other cost (hidden cost)^{PR} to clean up the environment which we all pay for that. I think the government policy should justify the demand and supply curve with other things like pesticides tax.

Interviewer: What strategies you think to be taken to minimise the price?

Respondent: (Increase production and amount of land in conversion)^{PR}. About 50,000 hectares were converted last year. This year there is 25% increase in amount of land in conversion. (Direct sale)^{PR} is also one of the major ways to minimize the price, so the consumer can buy direct from farmer with reasonable price.

Interviewer: Do you think organic consumers in other European countries have the same problem of high cost of organic food?

Respondent: In other European countries such as Germany, the government (give money to farmers directly)^{PR} beside adjustment of the (supply demand curve)^{PR}, so there is no need to charge extra.

Interviewer: Does the British government give farmers money? If yes, is it continues payment?

Respondent: (Relatively, yes) [FS] it is getting better. Last year it was about £30-60/ha. The £60/ha is continues. Farmer given initial conversion payment of £150/ha for two year and the amount decline for the next years. I think the British government is (doing quiet a lot)[FS] to help farmers but comparing with other European countries, (it is not good)[FS]

Interviewer: What about food quality? Do consumers pay attention to food quality?

Respondent: Organic consumers tend to (get better) [CE] education about what organic is about. There are different (social classes) [CE] such as young professionals and young family with young children who interest to their health. Those people who tend to be organic consumers and become more conscious and they are understand what organic is about and they are willing to pay extra for organic. Other people who look for food as food and, that are it! They will not eat organic because they think they waste their money.

Interviewer: Are there any differences between organic and non-organic foods in terms of value and quality?

Respondent: (Not a lot) [CE] Personally, I evaluated 50 different papers talking about the differences between organic and conventional food. Only 40% says there is no major difference and 60% says organic food contains higher vitamins and nutrients as well as it taste better. (We give people advices)[CE] and information about the value of organic food such as health protect environment etc... (And encourage them to buy it)[CE]

Interviewer: What you doing to promote organic food?

Respondent: We Engaging producers in direct sale
Encouraging consumers to buy directly from producers
Give farmers advices about the system it self and about the market Working with government to implement organic farming system. We set up conferences for producers and consumers to attend. Some of them free and some of them not. We provide training for farmers, published reports and Educate consumers

2. Supermarkets

Interviewer: Supermarkets are the dominant channels through which UK consumers purchase organic food. In your opinion, what motivates retailers to sell organic food? What are their strategies?

Respondent: The supermarkets originally motivated by (consumer demand) [RM] As the consumer start demand, multiple retailers need to satisfy that demand. (Maintain market share)[RM], (competition) [RM] and (profits) [RM] are major motivation for supermarkets as well.

Interviewer: Do you think profitability is not a priority for major retailers?

Respondent: Supermarket's interest for selling organic not for health or animal welfare or environment. (They do it for profit)[RM] However, I do not think they have more profit on organic food.

Interviewer: It has been indicated that an aim of the main food retailers in the UK is to support and encourage to UK producers in conversion to organic farming. Do you support this?

Respondent: (Not at all) [FS] However, (they may provide support) [FS] to farmers in some ways.

Interviewer: How do retailers support organic farmers? What kinds of support?

Respondent: (Sainsbury's have increased the share of British sourced produce) [FS] to 67% and (Tesco is introducing more seasonal produce)[FS] into its stores. Supermarkets like Sainsbury and Tesco (encourage farmers to go organic) [FS]. They (give them definite contract)[FS] so, farmers know if they go for conversion for 2 years, the next years supermarkets will buy products from them. The multiple retailers do not want to go for 10 farms for carrot or they do not want to go to 50 farms for milk. They prefer to go for cooperative rather than dealing with smaller producers.

Interviewer: In your opinion, do you think supermarkets pay a fair price to organic farmers?

Respondent: (Not at all, it has been squeezed) .[FS] We have seen a decline in farm gate value of organic. The point now where small farms comes profitable and been squeeze. As I said, multiple retailers prefer to deal with cooperative. what we seen is the farmer have got divers markets such as box scheme, farm market and farm shops as well as retailers.

Interviewer: How would you respond to claims by organic farmers that the supermarkets fail to pay fair prices for their products?

Respondent: (It is profit, isn't it?)[FS] Multiple retailers try hard to give people value; they do not understand where the producers go through. (They want to see their profit going fine.)[FS] It is also very difficult to give producers definite contract

Interviewer: Most farmers do not have formal contract with supermarket. Why is that?

Respondent: Multiple retailers change their suppliers and contract daily to get best price. They cannot cut the price. For example: 1 penny for a kilo of carrot will lead to cut thousand million by the end of the year. (Again, it is profit)[FS]

Interviewer: Do you think demand for organic food in the UK has been satisfied? If no, why is that? How can such increase in demand be met?

Respondent: (NO)[S/D.] We got huge under supplier in many areas. This is not because supermarkets do not do a good job, but it is very difficult to face the (huge demand)[S/D.] We need to (increase production)[S/D] to face this demand. Import is also needed. We encourage people to convert to organic (... If you want to convert, speak to us). We provide advice Such as: (... It is good idea to go organic... Do not go for beef or lamb meat production now, go for dairy or horticulture). We advice producers based on the situation of market. Also, (it is quiet important that people talk to other)[Int] (... Saying, great go for organic) is not enough? Currently the market meet demand with several products such as lamb meat and butter are (100% satisfied), beef is very good.

Interviewer: It is suggested that significant volumes of organic food are still being imported when UK producers could meet the demand. Why is that?

Respondent: In 2004, 47% of organic food in the UK was imported and the rest was locally produced. This is much better than 2003. However, this year 2005, we see an increase in imports. It was estimated to about 50% as overall. I think that is due to the (huge demand) [IMP]

Interviewer: Why indigenous products still imported?

Respondent: Simply because (we do not have local production to meet demand) [IMP.] Supermarkets are trying hard to source organic products.

Interviewer: How consumers do looks/respond to import products?

Respondent: A simple survey concluded that (consumer prefer local products)[IMP] They support British producers.

Interviewer: How do the overseas supply chains affect local production in the UK?

Respondent: I believe quiet strongly to have food imported. In the main time, I believe that consumers should eat seasonally. However, consumer is a consumer. They need every thing available all year around. Our job is to (educate consumers) [CE] to the benefit of eating seasonally. Eventually, we are hopping to engage

consumers to the level where they stop eating products out of season and support British producers all around.

Interviewer: Do you feel there is any conflict between importing and local production?

Respondent: Yes there is, but in the same time there is not! The conflict comes from the idea that the organic products should be locally produced. In the same times, some consumers need the products available over the year. And because (the local product is not enough) [IMP] to face the demand, (there is a need to import it).[IMP] Multiple retailers work hardly to provide the product and make it available. (The conflict will continue)[IMP] until we get to the level to educate people for seasonality.

3. Organic food supply chains

Interviewer: What are the pathways of organic products from farmer to supermarket? What is the structure of organic food supply chain within the home market?

Respondent: The organic market very much is even more about (network) [OSC] than supply chain. What we find in organic sector is producer, supermarket and consumer. In additional supply chain, you got producer, wholesaler, processor retailer and consumer. Also, there are amount of specialised channels. From producer you got certification body to consumer. You also find producers have a diversity of root again to the same time to farmer's market or the market involve with whole range of producers because organic producers more like to cooperate. You may have central channel where the small producers can get access to market. (It is very complicated process)[OSC]

Interviewer: Is there any difference between organic food supply chain and conventional food supply chain.

Respondent: In general (it is very similar) [OSC], but the main difference is the certification. The producer talks to certification body... I want to be organic. Ok, go for conversion process. Two years later, the producer gets the certification and licence number and whether the producer wishes to sell to wholesalers or whatever.
The wholesaler has to have certification and licence number. From that wholesaler through the certification to retailer. The retailers may not necessary to have certification. Organic producers are more like to engage in direct sales, cooperative etc... It is look like a mess, more people involve. In the same time there is less people involve if it is direct.

Interviewer: what is the structure of overseas supply chain?

Respondent: It is the same, we ask for certification.
The EU has a baseline organic standards and that is says, any thing to be sold in Europe as organic has to has that standards. The producers have to show equivalent. They will have inspectors in those countries to visit the farms and inspect and make sure it is met the EU organic standards.

Interviewer: How the UK import organic products? Is it direct or through the EU?

Respondent: (No, it is direct) [IMP] this will go to certification body.
The Soil Association standards are the highest organic standards in the world, it is far above the European regulations, and we have extra standards. If some body wants products come from any countries, and have soil association standards, they cannot follow only the EU standards. They should follow our regulation standards.

Interviewer: After the product enter the UK, what are the next steps?

Respondent: Importers bring the products from over the world to the UK.
Wholesalers or organic farm food can buy the products from the importers.
Multiple retailers may buy directly from the importers or from the wholesalers.

Interviewer: Do the importers import organic food on behalf of retailers or just bring the food and start to sell it?

Respondent: Possibly. But for top retailers, they have agreement with producers or cooperative in those countries so they took the products directly from them and cut off all the middlemen. Also producers want to increase their profitability.

Interviewer: `How do local distribution channels (local shops, farm shops, and box schemes) contribute to expanding the home market?

Respondent: There is (over 12% of organic products eaten in the UK were sold directly) [LOC] last year, through box scheme, farmer shop, farmer market and mail order. This is worth an estimated £144 million. Besides direct selling, local distribution channels have an important kind of contribution in the home market. People prefer to buy direct and got seasonal products and again that is lead to engage consumers in direct sale and (building a trusting relationships with producers) [LOC]

Interviewer: Any idea why these alternative channels have emerged?

Respondent: That is (because of us). [LOC] We wants local distribution and local consumption; we do not like to have shipment from over the world. We wants consumers eaten organic produce from a very low input, close the system down the road, low CO2 mission, minimum distance, no packaging involve, social benefit, and keep the money local. We are trying to give people (alternatives the supermarket and bigger share) [LOC]

Interviewer: Do you encourage producers building up these channels?

Respondent: (Yes, we help them) [M] to set box scheme, farm shops and farm market and to sell direct to schools and restaurants. (This is our major job)[M] This is what we do all the time is to ask producers to go to direct sale.

Interviewer: What are the key drivers for supply and demand of UK produced organic food?

Respondent: (Health)[S/D] is the biggest drivers, (Environment)[S/D], (Animal welfare)[S/D]

Interviewer: How do consumers, producers and retailers influence the supply chains of organic food in the UK?

Respondent: Consumers ask for products, which lead to extending supply chain and supply network. Retailers affected by consumers and try to give them what they want and make more food available. Retailers want to maintain the market share. Farmers started direct sale to give consumers alternatives, local seasonal organic. (They are shaping the supply chain)[S/D]

4. Interrelationships

Interviewer: In your opinion, how important are the producer/retailer, producer/consumer and consumer/retailers interrelationships? Do they affect organic farming development?

Respondent: (It is essential) [Int]. We are considering the system as a network which is a set of interrelationships. If the interrelationships brake down, the network will collapse and if the network is collapse, we will not going to sell organic produce. (The relationships must be strong and based on trust)[Int]

Interviewer: Do you think such interrelationships currently exist? Any examples?

Respondent: (Most definitely) [Int]. Many consumers go directly to producers and buy the product (share or support of farmers). This kind of interrelationships is very important and now becomes strong. Relationships with supermarket become tickle. People go to supermarkets to get a good deal. Now they have good deal at Morrison and this deal may not be stable This is may be why consumers engaged in the (direct sale)[Int] from farmers for stable product and reasonable price. (Flow of information)[Int], direct contact between producers and consumers are the best examples.

Interviewer: How such interrelationships affect:

1. Amount of organic food consumption:

Respondent: Good interrelationships will definitely (maintain organic food consumption) [Int]. If there is strong relationship between consumers and producers, the consumers will come back again and again, week after week and by doing that the producers will get more security of what they are doing and may expand their products.

2. Amount of land in conversion:

Respondent: If producers become stable, enough and more secure, (more land will be converted to organic) [Int]. Interrelationships definitely will help in expand more land in conversion.

3. Amount of local products:

Respondent: Again (it will expand it)[Int], it is more positive.

Interviewer: To what extent you agree or disagree with the following statement:

"Interrelationships between farmer/consumer/retailer are key factors in the growth and development of organic farming system in the UK"

Respondent: (Definitely agree) [Int].

Interviewer: Is there any thing that you think should be done to improve the marketing of organic products in this country?

Respondent: There are many people doing the right stuff; they created organic products with high quality, well branded, environment friendly and ethical products. (Producers should cooperate)[Int] with each other to get access to the market. People need to know (what the real cost of organic food is) [CE].

Interviewer: Why some organic farmers turned over to conventional?

Respondent: That is because some farmers convert to organic (just for making money)[M], they are not converting for organic way itself. If they are not happy with the money, they turned over. In contrast, other farmers who converted for organic for self-satisfaction protect the environment; protect their family health and animal welfare. Those farmers are enjoying the idea, engaged in direct sale and start to build kinds of trust with consumers.

APPENDIX 5

Interview with the managers of five alternative market outlets in south Yorkshire

Farmers' market

Interviewer: What kinds of product do you sell? Who are your suppliers?

Respondent: We sell (vegetables)^{P} and autumn (fruits)^{P} however, we still have problem with those two criteria because it is very seasonal. So the fruits and vegetables are very limited. We also sell (egg, chicken and organic baker)^{P} The suppliers are (farmers)^{SPL} around the region and people bring their (home made product)^{SP} to the market.

Interviewer: What motivates producers to sell their products through this channel?

Respondent: I think producers find themselves in (control of their destiny)^{M} They also receive good price for their products (good deal for them)^{M}, they do not like to sell their products to supermarkets.

Interviewer: Why producers do not like to deal with supermarkets?

Respondent: I think producers (prefer to work on their economy)^{M} Producers will not get better deal and there is no guarantee of the price they are going to get from supermarkets.

Interviewer: In your opinion, what motivate consumers to buy organic from organic farmer market?

Respondent: A lot of population like shopping at the farmer market because the product is (fresh and taste better with good quality)^{CM} Personally, I do not buy from supermarket because I do not like the philosophy of supermarket.

Interviewer: What are the main barriers for organic consumers?

Respondent: I think (availability)^{CB} is one of the major concerns for consumers. For the price, I think if customers were convinced about consuming organic they will pay for it

Interviewer: What factors important to consumers when choosing fresh products?

Respondent: (Quality)^{FRE}, (taste)^{FRE} and (freshness)^{FRE} and stay longer are the major factors for consumers when choosing fresh products.

Interviewer: How do you evaluate the attendance/orders of consumers? Do consumers attend the shop/market regularly?

Respondent: It is (fluctuated)^{Att} In a good day may reach 1000 people. Another reason behind the attendance is the location of the market. People come to other shops, supermarkets and by the way come and visit the market. For us, we are in the centre of the city.

Interviewer: Do you think the food price is reasonable for consumers compared with the price at supermarkets?

Respondent: Yes it is (cheaper than supermarket)[PRC]

Interviewer: Why is that?

Respondent: That is because of production cost (no production and (no packaging cost)[PRC] Also, producers buy in from their home and there are (no additional costs)[PRC]

Interviewer: Do you provide consumers with the needed products all year around? or just the seasonal produce?

Respondent: I do not think consumers find the entire product they need. Again it is an issue of availability. It is (only seasonal products)[SE]

Interviewer: Do consumers ask for only the seasonal products or they ask for organic products out of season?

Respondent: Mainly they (ask for vegetables)[SE] We got difficulties of sourcing vegetables suppliers. Producers sometimes use box scheme and deliver it directly to consumers so the consumers do not come to the market.

Interviewer: Do you think organic consumers are well educated about eating organic? Especially about the concept "Eating seasonally"?

Respondent: (I would say No)[CE] There is health action who giving people cups of soups to taste, they go around school and try to educate students. But generally, (people need to be educated about organic food)[CE]

Interviewer: Do you receive any kind of support from government or other agents?

Respondent: (Local authority gives some support)[SUP], not necessarily financial support. They rent the stores, provide place, and they are keen to see the market develop.

Interviewer: It is known that 70 percent of organic foods sold through supermarkets are imported. In your opinion, how these strategies affect the development of organic farming systems in this country? Is it barriers to the growth and development of the home market?

Respondent: I think the supermarket got (strangle hold of production)[IMP] and it is very difficult for independent producers to buy it and also very difficult for them to fight against the wealth of supermarkets. From price marketing point of view, I think (import product is very cheap and good quality)[IMP] Also the products sold here is not in the shape where the supermarket need: Ex: Waitrose (shape and size)

Interviewer: How significance of the contribution of the local distribution channels in the home market? Did you notice any improvement during the last few years?

Respondent: It is useful for small producers. In terms of home market improvement, yes (it is getting better)[LSC] and become one of the (significant factor)[LSC] in developing of organic market. This kind of channels (gives people an opportunity to choose)[LSC] and to try something different. Also to get fresh products with better quality.

Interviewer: It is indicated that consumers now turned their back to supermarket. What do you think?

Respondent: I am so happy to see that.

Interviewer: How important the producer, consumer and retailer interrelationships in development of organic farming system?

Respondent: Such interrelationship is (not so good at the moment)[Int] However (it is getting better)[Int] Producer and consumer interrelationship is (key issue)[Int] in building trust relationships between the two partners and it is exist herein the market.

Interviewer: How such interrelationships affect the organic food market?

Respondent: Definitely will have a (positive effect)[Int]

Interviewer: In your opinion, why producers prefer to sell their product directly to consumers through local distribution channels?

Respondent: I think it is (human nature)[DS] to see the end of something started. Producers find difficulties to provide supermarkets with what they need according to their (grade and specification)[DS]

Interviewer: Is there any thing that you think should be done to improve the marketing of organic products in this country?

Respondent: I just hope to be more available and be able to building a society with more choices and quality. I think small producers who produce quality need (more encouragement)[Int] Supermarket kills community shop off and makes every thing uniform and packing. For example: When I buy something from here, buy it from supermarket, and take it home, I noticed that kids prefer the one from here and they said, "Oh, it is fantastic." So kids appreciate quality when offer to them.

I think the market is there but I am not sure for how long.

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Organic shop 1

Interviewer: What kinds of product do you sell? Who are your suppliers?

Respondent: The most products we sell are (vegetables and fruits)[P] We also sell wholefoods which is not processed, products for vegetarians and products with a sort of ethical such as (coffee and chocolates)[P] Regarding our suppliers; we have about 4 suppliers: One loca (farmer)[SP], one (farmer's co-op)[SP] and two (wholesalers)[SP] Our product is mainly from wholesalers, about 20 % from farmer and it is only seasonal products. We got out of season products from the wholesalers who may import it from Italy, France and Spain.

Interviewer: What are your motivations to sell organic foods?

Respondent: Personally I am interested in organic foods (personal interest)[M] Also, it is a (good business)[M]

Interviewer: How do you evaluate the attendance of consumers to your shop?

Respondent: There are many consumers visiting the shop regularly. People come from all over the city to buy organic. (It is good)[Att]

Interviewer: Do consumers ask for seasonal products or they just ask for organic food in general?

Respondent: Most consumers are (not knowledgeable) [SE] about seasonality. They come to the shop and select the product from the shelf.

Interviewer: Do you provide consumers with the needed products all year around? or just the seasonal produce?

Respondent: There are still some problems with (availability) [SE] compared with conventional. We try very hard to make every thing available for our customers

Interviewer: Do you think organic consumers are well educated about eating organic especially about the concept "Eating seasonally"?

Respondent: Many people do not understand this concept. The educated and knowledgeable people about seasonality are still a (minority) [SE] The availability of products out the season sometimes confuses people about seasonality. It is (very important) [CE] for people to be educated about eating seasonally and we try to provide our consumers with boxes of seasonal products with out coming to the shop. If they come, they will choose from the shelf and not necessarily choose seasonal products. A local educated knowledgeable minority come and see seasonal produce. I think it is wrong to say there is a majority.

Interviewer: In your opinion, what motivate consumers to buy organic through these channels?

Respondent: I think (health) [CM] is the main motivation. Some other consumers are committed to ecological issues and (ethical dimensions) [CM]

Interviewer: What are the main barriers for organic consumers?

Respondent: (Price) [CB] is the main barriers for consumers. There are other issues about supply; we probably sell more if we got (enough quantity)[CB] with good quality however, quality is not predictable.

Interviewer: Do you sell some products through box scheme?

Respondent: Yes, we do delivery. It is a (sort of box scheme) [DS] The consumers get seasonal selection of several products and they may specify few changes before sending them the box.

Interviewer: How does the box scheme works?

Respondent: The (consumer register with us) [DS] first and we (deliver the product weekly) [DS] to them. They may ring us and make some changes.

Interviewer: What factors important to consumers when choosing fresh products?

Respondent: People are very attractive to (freshness) [FP]

Interviewer: Do you think the food price is reasonable for consumers compared with the price at supermarkets?

Respondent: Yes, the price is (very good) [PRC] Compared with supermarkets, the prices tend to be (as same as the supermarkets) [PR] and sometimes a little (bit cheaper) [PRC]

Interviewer: Do you receive any kind of support from government or other agents?

Respondent: (No support) [SUP] the reverse is true, we pay the government. We are registered with Soil Association and they come to us for regular inspection. Soil Association deliver a lot of information but mainly that for producers (technical and marketing information).

Interviewer: It is known that 70 percent of organic foods sold through supermarkets are imported. In your opinion, how these strategies affect the development of organic farming systems in this country?

Respondent: It is (very complicated issue) [IMP] the market is not growing steadily, some times there are (huge demands) [IMP] that the local farmers cannot provide. In this case the supermarkets need to (satisfy this huge demand by imports) [IMP] I think farmers need to be aware of the huge demand for organic foods and they need to work hard to satisfy it. Again, supermarkets are looking for (doing a good business) [IMP] rather than looking for some thing else. For example: British tomatoes are available BUT imported tomatoes are very cheap!

Interviewer: Do you think supermarkets become one of the significant barriers to the growth and development of the home market?

Respondent: There are reasons why supermarkets create problems in the horticultural in general. The supermarkets do not see them self-having a role in education or ethical decision. (They just need to put stuff out and people pick it up)[IMP] you can not expect supermarkets to have engaged in such role (they are what they are) [IMP]

Interviewer: How significance of the contribution of the local distribution channels in the home market? Did you notice any improvement during the last few years?

Respondent: One of the thing that supermarkets struggle with, is they need a lot of quantity of organic foods and this quantity need to be consistence. For instant, (box scheme now is working in favour of producers) [LSC] Yes there is a (very important contribution) [LSC] for these channels in the home market. Also, it is (so important to small producers to get access to the market) [LSC]

Interviewer: How important the producer, consumer and retailer interrelationships in development of organic farming system?

Respondent: Yes I think (it is very important)[Int] For example, we send a little leaflet with the box to our consumers explains why we have not got this and what constraints we face and why. We struggle in this country comparing to other countries like Italy or France because the consumers in this country are less understanding the appreciation of their own home-grown produce.

Interviewer: In your opinion, why producers prefer to sell their product directly to consumers?

Respondent: When we buy organic food we contact co-op and actually they contacted us and told us about the non-successful of selling the products to supermarkets because they could not met their grade and specification. They decided to go to a different route by contacting us. We also keep hearing the same story from producers who can not sell their products to supermarket because of the (grade and specification) [DS] of supermarkets and the (produced amount is so small) [DS]

Interviewer: Is there any thing that you think should be done to improve the marketing of organic products in this country?

Respondent: I think organic farming is now expanding the concept of box scheme.

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Organic shop 2

Interviewer: What kinds of product do you sell? Who are your suppliers?

Respondent: We sell (vegetables, fruits, milk, grains, cereal, pulses and in jar foods)^{P} We source vegetables from (farmers, and wholefood)^{SP} The rest of products from (manufacture)^{SP} Our priority to local produced foods and then imported foods.

Interviewer: What motivates local distribution channels (organic shops, farm shops, box scheme *etc.*) to sell organic foods? What is your motivation?

Respondent: Our motivations are (to provide healthy food)^{M} for our customers, (minimise food mileage protect our environment and to make money)^{M}

Interviewer: In your opinion, what motivate consumers to buy organic?

Respondent: I think the main motivation is (health)^{CM}

Interviewer: What are the main barriers for organic consumers?

Respondent: (Prices)^{CB} still a big problem for consumers. Fresh product is affected by heat

Interviewer: What factors important to consumers when choosing fresh products?

Respondent: I think (good looking, local and freshness)^{FP} are the main important factors for consumers when buy fresh organic products.

Interviewer: How do you evaluate the attendance of consumers? Do consumers attend the shop regularly?

Respondent: It is (very stable)^{Att} in the summer is very good. We want more but it is ok.

Interviewer: Do you think the food price is reasonable for consumers compared with the price at supermarkets?

Respondent: (Yes, sometimes cheaper or same)^{PR} as price at supermarkets. However, (sometimes more expensive)^{PR} we compete others.

Interviewer: Do you provide consumers with the needed products all year around? or just the seasonal produce?

Respondent: We advertise for seasonal products and (deal with seasonal)^{SE} products.

Interviewer: Do consumers ask for only the seasonal products or they ask for organic products out of season?

Respondent: People normally (ask for organic food in general)^{SE}, they do not care if it is in or out the season.

Interviewer: Do you think organic consumers are well educated about eating organic? Especially about the concept, "Eating seasonally"?

Respondent: Some of them know about the importance of eating seasonal but I think (there is a need for more education) [CE] about this concept.

Interviewer: Do you receive any kind of support from government or other agents?

Respondent: We are a member of soil Association and (we receive support in form of information) [SUP] and advices. We do not receive financial support from anywhere.

Interviewer: It is known that 70 percent of organic foods sold through supermarkets are imported. In your opinion, how these strategies affect the development of organic farming systems in this country?

Respondent: I think (huge demand and availability) [IMP] of products is the reasons behind imports. Supermarkets have to import and this is the only way to meet demand. We need local products, we need to see all products is sourced locally but with small amount of producers currently available, (it is a big challenge for improving local market) [IMP]

Interviewer: Do you think supermarkets become one of the significant barriers to the growth and development of the home market?

Respondent: Most people say yes. However, in fact, an (import is still needed) [IMP] to satisfy growing demand. It is more complicated than we imagine.

Interviewer: How significance of the contribution of the local distribution channels in the home market? Did you notice any improvement during the last few years?

Respondent: Personally, we do not improve our sales during the last few years. The share of the local distribution channels is estimated about 30%. So, it is (still small) [LSC]

Interviewer: How important the producer, consumer and retailer interrelationships in development of organic farming system? Is this kind of interrelationship/cooperation is exist now?

Respondent: It is (very important)[Int] For us, we have good relationships with our consumers. We always contact them, sending them information, answer their question. Also, supermarkets try hard to build strong relationships with their consumers.

Interviewer: How such interrelationships affect the organic food market?

Respondent: (It has to be good)[Int]

Interviewer: In your opinion, why producers prefer to sell their product directly to consumers through local distribution channels instead of selling to supermarkets?

Respondent: I think because of the (small amount) [DS] they produce. (Consistency and supermarket's specification)[DS] are also major reasons

Interviewer: Is there any thing that you think should be done to improve the marketing of organic products in this country?

Respondent: I think increase numbers of farms will leads to increase amount of local produce and that will minimise import as well as prices.

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Farm shop (Telephone interview)

Interviewer: What kinds of product do you sell? Who are your suppliers?

Respondent: We sell (vegetables, fruits, baker and lamb) [P]

Interviewer: What motivates local distribution channels to sell organic foods?

Respondent: Simply because organic food production is better for (environment) [M] and it is better for (people health) [M]

Interviewer: In your opinion, what motivate consumers to buy organic through these channels?

Respondent: I think (health) [CM] concern is the main motivation for buying organic food

Interviewer: What are the main barriers for organic consumers?

Respondent: (I do not think there is) [CB] any barrier for consumers to buy organic

Interviewer: Do you think price is the big challenge for consumer to buy organic food?

Respondent: (No, I do not think so) [PR] our consumers are quiet happy with prices and they always willing to pay.

Interviewer: What factors important to consumers when choosing fresh products?

Respondent: The consumers want to see what they are going to buy. Consumers look for (freshness) [FP] because fresh products are healthy and taste better.

Interviewer: How do you evaluate the attendance/orders of consumers? Do consumers attend the shop/market regularly?

Respondent: (It is very good)[Att]

Interviewer: Do you think the food price is reasonable for consumers compared with the price at supermarkets?

Respondent: (Yes it is) [PR]

Interviewer: Do you provide consumers with the needed products all year around? Or just the seasonal produce?

Respondent: We provide consumers with (seasonal) [SE] and local products

Interviewer: Do consumers ask for only the seasonal products or they ask for organic products out of season?

Respondent: Most consumers ask for fresh and (seasonal products) [SE]

Interviewer: Do you think organic consumers are well educated about eating organic? Especially about the concept "Eating seasonally"?

Respondent: (I do not think so) [CE], but it is getting better

Interviewer: Do you receive any kind of support from government or other agents?

Respondent: (Yes) [SUP] we got support from Soil Association (inspection every year).

Interviewer: It is known that 70 percent of organic foods sold through supermarkets are imported. In your opinion, how these strategies affect the development of organic farming systems in this country?

Respondent: (This strategy is not good) [IMP] for our producers and our market. I think supermarket keep importing organic food because it is cheap.

Interviewer: Do you think supermarkets become one of the significant barriers to the growth and development of the home market?

Respondent: (That is possible) [IMP] but I think there is no enough organic food to satisfy demand and (the supermarkets need to import) [IMP] organic products to meet the demand.

Interviewer: How significance of the contribution of the local distribution channels in the home market? Did you notice any improvement during the last few years?

Respondent: I think its contribution is (very significant) [LOC]

Interviewer: How important the producer, consumer and retailer interrelationships in development of organic farming system?

Respondent: (Absolutely it is very important)[Int]

Interviewer: How such interrelationships affect the organic food market?

Respondent: (Do not know)[Int]

Interviewer: In your opinion, why producers prefer to sell their product directly to consumers through local distribution channels?

Respondent: (N/A) [DS]

Interviewer: Is there any thing that you think should be done to improve the marketing of organic products in this country?

Respondent: No

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Organic cooperative

Interviewer: What kind of products do you sell?

Respondent: We sell a (lot of organic food and vegetables) [P] such as: Cereals, legumes, bread, seeds, herbs, drinks, snacks skin care products etc... We tried to offer organic products that are not available in supermarkets such as (household things) [P] and (natural care things). [P] Some of the food sourced locally and some are imported.

Interviewer: What are your motivations?

Respondent: Our motivation is to sell organic produce because it is (better for people) [M], (better for environment) [M], (more ethics). [M] We know there is ethic people, vegetarian people and allergic people, so we provide all these people with what they need and more suitable. Also, we keen to (provide alternative shopping to supermarkets) [M] beside it is good business.

Interviewer: The co-op is a key channel in the organic food supply chain. How and why this channel was emerged.

Respondent: We are a wholefood worker's co-op and have been around since 1978. We developed this store (to provide alternative shopping for consumers especially the ethics) [M] and vegetarian. We are vegetarian and ethically run!

Interviewer: How do you buy organic products?

Respondent: We order from (wholesalers) [SPL] (weekly), (farmers) [SPL] (directly) and other two (companies). [SPL] We got some difficulties getting products from farmers but we are currently dealing with two farms.

Interviewer: To whom you sell organic products? Is it direct to consumers, direct to supermarkets or both?

Respondent: (We deal directly with consumers) [DS] and do delivery (box scheme) [DS]. We do not send any thing to supermarkets; we are in directing competitive to supermarkets.

Interviewer: How is that?

Respondent: (Consumers come here) [DS] and visit the store for shopping and sometimes we (deliver food) [DS] up on request to homes (box schemes).

Interviewer: In your opinion why producers most likely to cooperate? Any idea if organic producers engage in any formal contract with supermarkets?

Respondent: I think because selling produce to supermarkets is very difficult for farmer because of the (small amount they produce) [DS] beside a lot of (control from supermarkets) [DS] comparing to selling to small shops.

Interviewer: In your opinion, what motivate consumers to buy organic through local distribution channels?

Respondent: I think (health) [CM] is a big motivation for consumers. However, some consumers come here because it is more convenient and they prefer to shop locally and ethically. We provide them (ethical alternative) [CM]

Interviewer: What are the main barriers for organic consumers?

Respondent: People always complain about (price) [CB] and I think it is the main barriers. However, there are many consumers who willing to pay extra money for organic because of its value and quality.

Interviewer: What factors important to consumers when choosing fresh products?

Respondent: People looks for freshness because they believe (it taste better) [FP]

Interviewer: Do consumers visit the co-op market regularly? How do you evaluate their responses?

Respondent: Yes, it is OK, a lot of consumers visit the shop every day, I think the attendance is (fine and getting better)[Att]

Interviewer: Do you think the food price is reasonable for consumers compared with the price at supermarkets?

Respondent: I think the price is (reasonable) [PR] looking for the value of foods we provide.

Interviewer: Do you provide consumers with the needed products all year around? Or just the seasonal products?

Respondent: Yes we do. We always provide fresh vegetables but in winter not good, because it comes from outside and we do not buy as much. (We focus on season)[SE]

Interviewer: Do consumers ask for only the seasonal products or they ask for organic products out of season?

Respondent: It is (half-and-half) [SE] Some ask for seasonal products and some ask for organic foods in general and do not care where it is come from.

Interviewer: Do you think organic consumers are well educated about eating organic? Especially about the concept "Eating seasonally"?

Respondent: (I do not at all) [SE]; there is a lack of education. Eating seasonal vegetables, come locally is better for health besides reducing food mileage. I do not think consumers are better educated about this concept.

Interviewer: Do you think consumer education is a key issue in the growth and development of the home market?

Respondent: I think it will be (amazing) [CE] It is now getting better

Interviewer: Do you receive any kind of support from government or other agents?

Respondent: (Not at all). [SUP] we do not have any help from anywhere. I think it is a shame if you look to what we are providing; we pay a lot of money for certification

Interviewer: It is known that 70 percent of organic foods sold through supermarkets are imported. In your opinion, how these strategies affect the development of organic farming systems in this country?

Respondent: (It is hireable) [IMP] There is really shock why supermarkets import this huge amount while we can produce some of them here. I think it is the profitability.

Interviewer: Do you think supermarkets become one of the significant barriers to the growth and development of the home market and consequently the development of OFS?

Respondent: (I think so) [IMP] This strategy definitely affects the market negatively.

Interviewer: How significance of the contribution of the local distribution channels in the home market? Did you notice any improvement during the last few years?

Respondent: Supermarkets dominate and control the market. However, the share of these channels is (really good and getting better) [LOC]

Interviewer: How important the producer, consumer and retailer interrelationships in development of organic farming system?

Respondent: I think it is (very important)[Int]

Interviewer: How such interrelationships affect the organic food market?

Respondent: The interrelationships leads to (more understanding)[Int] of the concept and value of organic food and that will leads to much (improvement of the home market)[Int]

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