

**An Investigation of the Demand
for Organically Grown
Produce**

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Submitted for the degree of
Master of Philosophy

University of Edinburgh
1993



Declaration

I hereby certify that this thesis, submitted in candidature for the degree of "Master of Philosophy" of the University of Edinburgh, is the result of my own original research and any assistance and work of others is acknowledged overleaf. The thesis is not currently submitted for any other degree.

Acknowledgements

I would like to thank my supervisors for reading this thesis and for providing me with comments and corrections throughout the write up stage of this work.

My thanks also to Edinburgh University and to the Organic Farming Centre for providing financial support and to the Scottish Agricultural College and to the Institute of Ecology and Resource Management for the use of their facilities.

I am especially grateful to Sandy Gibson who helped me enormously in preparing my data for computer analysis, and to Margaret Palchynsky for her assistance in processing. My thanks also to Tony Hunter of the Scottish Agricultural Statistics Service, who not only dissipated the mysteries of statistical analysis, but also provided sound advice on the methods used throughout the whole research.

The success of the surveys was largely due to the bright ideas and computing skills of Dietrich Schoss, who devoted so much time in helping me to design the questionnaires and who supported me throughout the collection of data. I am also indebted to the managers and staff of the organic retailers in Edinburgh, in particular to those at Good Food, Nature's Gate and The Happy Carrot, who gave up their time to answer questions and who allowed me to accost their customers, clipboard in hand, during the organic buyer survey. I also wish to thank all the wholefood shop, supermarket and farm shop managers around the country who took the time to complete and return questionnaires by post as part of the retailer survey.

Finally, I wish to give my thanks to all the friends who helped and supported me throughout this research: to Mum, Dad, Aileen, Eileen and Kayren for encouragement on the phone, to Jonathan for his patience and sound advice, and to Jo, Dodo, Mario and Karen for moral support, laughs and a lot of inspiration in the office.

Abstract

Four issues were investigated in this thesis. First, the factors which motivate organic food buying behaviour¹; secondly, the reasons which cause people to avoid organics; thirdly, the cost and availability of organics in different retail outlets, and finally the opinions of retailers as to the current and future state of the organic food market. In addition, the proportion of organic buyers to non-buyers which existed among the public was estimated.

Primary research was employed to survey three types of respondent. First, a national postal survey of supermarkets, wholefood shops, farm shops and greengrocers that stocked organic food was undertaken. To obtain more detailed information on the public's attitude towards organic produce, a telephone survey of the Edinburgh and Lothian population was conducted. Finally, the particular preferences of organic food buyers were recorded by personal interviews of customers in wholefood shops around Edinburgh. Non-parametric tests, in particular chi-squared tests, were used to measure the differences between the responses of organic retailers and those between organic buyers and non-buyers.

Results showed that the proportion of organic food buyers among the public in 1992 (29%) was no greater than those found by studies undertaken in 1987 and 1988. Concern for health was perceived most commonly to be the most important buying motivation for organic food by retailers, buyers and non-buyers alike, while expense was the most commonly cited non-buying reason among respondents. In general, supermarkets were found to incur greater cost when purchasing organic foods and they suffered significantly higher levels of wastage compared with wholefood shops. Yet supermarkets did enjoy a more extensive and consistent range of fresh organic produce in comparison with smaller retailers. Most retailers were optimistic about the future of the organic market and believed the high price of organic food to be the single most important barrier to market expansion.

It appears that many organic purchases, ostensibly altruistic in motivation, are in fact motivated by fear or by fashion. The major non-buying reasons given by respondents fall into two types: lack of knowledge and lack of value. To encourage organic food purchases and to combat non-buying reasons, retailers must create awareness and knowledge about organics, and achieve lower prices. However, long-term expansion of the market may only be assured by legislation which is more favourable towards organic growers.

1 Throughout this thesis, the term organic when applied to buyers, buying behaviour or retailers refers to food products which have been grown by organic methods.

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SECTION I

Introduction

The current proportion of buyers of organically grown produce among the public in Great Britain today is unknown. Some evidence suggests that the proportion has been decreasing over the last few years: estimations of a 50% ratio of buyers to non-buyers in 1989 (Henley Centre 1989) have been countered with an estimation of only 13% in 1990 (Mintel Special Report 1991). Organic suppliers also appear to be feeling the change. As early as 1990, the industry was reporting sales returns below those of expected levels (Mintel 1991), while the major wholesaler Organic Farm Foods admitted experiencing a drop in sales of organics during 1991 (Erlichman 1992). And while growth in organic sales was confidently predicted to continue until at least 1995 (Mintel 1991), it appears that current sales returns fall short of these predictions. Given such evidence, the first objective of the current research is to determine the current proportion of organic buyers to non-buyers.

The above statistics suggest that the current organic market is quite different from that which suppliers experienced during the mid- to late-80s. During this period, the organic industry experienced a growth in total sales from £8 million in 1985 to £60 million in 1989 (Mintel 1991), the largest part of these sales being made up by the organic fruit and vegetable sector of the market. Such an increase signified a considerable switch in consumer buying behaviour, and market studies have sought to explain the factors which influenced this. First, the huge interest in environmentally friendly products over recent years was believed to have stimulated the demand for organics (Mintel 1991), while the "kind" production methods promoted by organic agriculture coincided with increased public concern surrounding the welfare of farm animals in intensive rearing systems (Boyle *et al* 1991). In addition, the series of widely publicised food scares in 1989 and 1990 fuelled the demand for products free from agrochemical residues (McGregor *et al* 1990), while a general interest in sensible eating habits was purported to attract consumers to the healthy image of organics (Mintel 1991). With such demand-boosting influences, the recent downturn in organic sales appears illogical.

A number of factors have restricted the demand for organics even during periods of growth. The lack of availability of organics, which stems from a fragmented marketing structure (Lampkin and Stopes 1989), clearly has a detrimental effect on demand. In addition, the high price of organics is a most commonly cited problem: surveys by Which? (1990, cited in Boyle *et al* 1991), McGregor *et al* (1990) and Mintel (1991) emphasise the importance of high price as a purchase barrier for many of the respondents to their surveys. Despite rapid growth in the demand for organics, a general lack of public knowledge and awareness about the produce persists, and these factors render consumers less willing to seek out organics and more likely to find the price and appearance of organics unacceptable (Mintel 1991). In addition to these long-standing barriers, the deepening economic recession has reduced disposable income (Erllichman 1992), with the result that high organic prices are even more unattainable. What is more, the amount of media attention paid to food health and safety is possibly not as intense as it has been in previous years, which cancels out one factor identified as coinciding with the rapid growth in the demand for organics.

Clearly, while positive influences to organic demand have been in existence, an equal number of barriers face the current demand for organics. Therefore, the second objective of the current research is to obtain an understanding of the motivations which drive people to buy organics, and the reasons which cause people to avoid the produce. For this, the main buying and non-buying motivations will be identified, and the influence of recent economic, social and psychological factors on these motivations will be considered. The research will also consider the impact which organic suppliers' and retailers' operations have on demand. Thus, Chapter 1 provides an overview of the current knowledge surrounding the demand and supply side of the organic market, concentrating on the factors which raise questions about the interpretation of the demand for organics, questions which Chapter 2 sets out in the form of hypotheses. The following chapters then describe the methods (Chapter 3) and results (Chapter 4) of the research employed to test the hypotheses, culminating with the discussion (Chapter 5) and conclusions (Chapter 6) of the research.

It should be noted that the emphasis of the research is on organic fruit and vegetables, as this line represents the largest part of the market. However, theories and conclusions may hold true for any type of organic produce.

SECTION I

1 Literature Review and Hypotheses Generation

The principal focus of this thesis is the study of the main buying and non-buying motivations that determine the demand for organic produce in Great Britain today. This chapter reviews the current knowledge surrounding the nature of the demand for organics, focusing on the social and economic factors which are believed to influence organic purchase (or non-purchase). The chapter begins however, with a discussion of the current state of organic production and retailing in Britain today. Developments in the supply side of a market can have an impact on demand, and can also reflect the changing state of demand. This is particularly important for the organic market where rapid changes in production and retailing have had a considerable effect on organic demand determinants such as price and availability since the mid-1980's.

1.1 The Supply Side of the UK Market for Organic Produce

The current supply of organic produce is characterised by a number of factors which have some impact on demand. These factors include the standing of organic farmers and growers, the status and power of organic retailers, the attitude of the government and the conventional farming industry to the organic market and the current usage of organic standard symbols. This section will describe the nature of these factors and the impacts they have had on demand.

1.2 Current UK Organic Growers

The ability of domestic organic growers to produce competitively is crucial to the growth of demand for organics. Aside from the impact domestic production can have on the level of product quality in the shops, the current lack of domestic farmers retards the growth of demand by limiting the availability of the produce. The scarcity of British growers also contributes to the high price of organics, because it forces retailers to buy in imported organic produce which is generally more expensive (Berry and Lydford 1990). A study of the current number of organic farmers and the scope of their operations is required to indicate the current threat posed to organic demand by high price and lack of produce availability.

Demand may also be affected by the way in which British organic farming has expanded geographically since the mid-80s. It is possible that there has been an uneven growth in the number of organic farmers in Great Britain since the "boom" period, and that as a result, the South East and South West of England now enjoy the highest concentration of farmers and the greatest organic acreage, while Scotland and the North of England have the smallest proportion of organic farmers and acreage. This theory of regional variations in organic farming has since been supported by Murphy (1992), who found that among a sample of 557 growers, the number and size of organic farms varied considerably from region to region (Table 1.1).

Table 1.1 *The number of organic farmers and acreage of land under organic production by region, 1990, from a random sample of 557 farms (Source: Murphy 1992)*

	<u>England</u>			<u>Scotland</u>	<u>Wales</u>	<u>GB</u>
	North ¹	West	East			
Total Number of Farms	42	188	186	63	78	557
Total Organic Area per Farm ('000 ha)	1.1	4.9	5.5	1.9	1.2	14.6
Percentage of total organic area	7.5	33.6	37.7	13.0	8.2	100

1 The southernmost counties included in the region "North" were: Humberside, South Yorkshire, West Yorkshire, Greater Manchester and Cheshire. All English counties to the south of these were included in the regions "East" or "West"

Thus, the East and West of England (which includes the Midlands, in addition to the South East and South West) enjoy a much larger number of organic farms and greater organic acreage. These regional variations raise the following questions in relation to the demand for organics.

1. *Given that the existence of organic farming in some regions is more widespread than in others, do retail outlets in these regions suffer from less abundant availability and higher prices of organics as a result?*

2. *Do the breadth and freshness of the fresh organic ranges stocked by retail outlets vary according to the regional location of those outlets?*

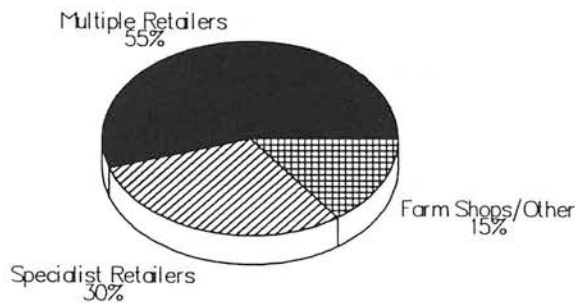
3. *Does the attitude of growers towards the current and future state of the market depend on the region in which the grower lives?*

There is a further issue associated with organic farmers which should be investigated. In reality, the British organic growers of today face severe financial hardship (Murphy 1992). The report produced by Cambridge University in 1992 stated that half the wholly-organic farms in Great Britain are running at a loss, and indeed no more than 400 genuinely commercial organic farms were identified by the authors. Although the methods used in this report have since been criticised (Woodward 1992, Bateman 1992), even before its appearance it was clear that many organic growers were not enjoying the financial rewards normally associated with a rapidly expanding market (Woodham 1991). While studies have reported the monetary troubles of organic farmers, the views of the growers themselves as to the causes of these troubles have been overlooked. Thus, the opinions of organic growers as to the current and future state of the market require investigation.

1.3 UK Organic Retailers

The operations of retailers in the organic market, in particular those of the food multiples, have had a huge impact on the demand for organics. The buying power and wide customer base of supermarkets have given them the ability to increase awareness and to portray the image of organics which has since become commonplace. In addition, their interest in and commitment to the market impacts on the price and availability of organics (Woodham 1991, Erlichman 1992). The most important retailers in the organic market (by sales value) are shown by Figure 1.1.

Figure 1.1 *Organic market shares by type of retail outlet 1989** (Source: Mintel Organic Market Special Report 1990)



* Measured by value of sales

It can be seen from Figure 1.1 that in 1989, supermarkets enjoyed a 55% share of the organic market. Clearly, over the last 10 years, the relative shares of the organic market have shifted dramatically away from the traditional outlets of specialist shops and farm shops to supermarkets. Indeed, a more recent estimation of supermarkets' organic market share (70%) suggests that their proportion of demand continues to grow at the expense of smaller outlets (Woodham 1991).

1.3.1 Supermarkets

Kotler (1984) defines supermarkets as: "relatively large, low-cost, low-margin, high-volume, self-service operations". However, he also states that supermarkets may be defined by their product and customer bases: as food multiples have a diverse product line, they also enjoy a wide and varied customer base. The principal issue to arise from this is: *do the buying motivations of a supermarket's customer base differ from those of a more narrowly defined clientele, such as that associated with wholefood shops?*

The six supermarket chains which operate in the UK organic market today are (by importance of sales value in organic foods): Safeway, J Sainsbury, Tesco, Asda, Gateway and Waitrose (Mintel 1991). It should be noted that total number of organic stocking stores within each chain varies substantially: for example, Safeway and Waitrose guarantee fresh organic produce in all their stores, while Tesco and Asda confine their stock to selected stores only (Tate 1991). The current performance of organics in the supermarket sector as a whole is unclear, but it is noteworthy that although Safeway's annual sales for organics in 1990 were £4 million (Tate 1991), recent industry estimates suggest the company is making a loss of £1 million on the produce (Erlichman 1992).

Numerous benefits to the organic market have been cited as a result of supermarket chains' interest in stocking organic produce. First, it is generally agreed that without their support the organic market would not have expanded as rapidly as it has done in the last 5 years (Haest 1990, Mintel 1991). Furthermore, by a combination of their buying power and wide customer base, supermarkets have made organics available on a large scale to those customers who are less knowledgeable about and committed to organics (Lampkin and Stopes 1989). In addition, their strong buying power has undoubtedly encouraged more farmers to convert to organic methods and has given existing growers the incentive to become more professional in their operations. It is also possible that the in-store promotional efforts of supermarkets have raised the profile of organics, encouraging increased media attention. It is proposed that these factors have had a positive impact on demand.

Recently however, the organic stocking policies of supermarkets have come under a degree of critical scrutiny (eg Blythman 1991, Woodham 1991, Erlichman 1992). It is clear that supermarkets are anxious to ensure a consistent supply of organics: their view is that customers expect to see a consistent supply of produce on their shelves, and that organics will be overlooked if the selection of fresh produce fluctuates from week to week. However, Woodham (1991) asserts that the transportation needed to procure sufficient produce to display in a store is instrumental to increasing the price of organics in supermarkets. Erlichman (1992) finds a different fault with supermarkets' stocking policy: he claims supermarkets who insist on stocking a maximum selection of produce in-store create vast surpluses of organics which then become wasted. He points out that this high wastage is contrary to the organic ethos and claims it raises the premium on organics. Clearly, the price premiums, ranges of produce and wastage levels of supermarkets' fresh organics require investigation. A second question raised by this discussion of supermarket stocking policies is: *to what extent do the price and wastage levels of supermarkets compare with those of small retailers?* The operations of the latter retailers escape criticism, probably because their buying power is inferior to that of supermarkets.

A further accusation directed at supermarkets concerns their stipulation that organic fruit and vegetables be as similar as possible in size and appearance to conventionally grown produce (Woodham 1991). Supermarkets assert that their customers expect to see perfect-looking fresh produce, and that they will be deterred by the imperfect appearance of organics. However, supermarkets' requirement for excellent appearance, according to Woodham, creates further wastage because they consequently reject organics not meeting their appearance requirements.

It is clear that supermarkets' commitment to consistent supply and perfect appearance is logical for a retailer group which has a large proportion of consumers who are neither knowledgeable about nor interested in organics. But the implications for demand are serious: while the impact of organic cultivation methods on price and availability can be understood by consumers (with a little explanation), accusations of supermarket mismanagement, in terms of passing the cost of stocking organics onto the consumer, are less easy to justify. It is possible that reports such as those by Woodham and Erlichman, in highlighting the involvement of one retailer group in the organic market, have also served to instil or reinforce a generally negative image of organics. As a result, there may be a greater level of scepticism existing among organic non-buyers than before. In conclusion, the following questions should be addressed: *to what extent are the price and wastage levels of organics in supermarkets perceived negatively by the public, and what is their attitude to the commitment of supermarkets to organics?.*

1.3.2 Small Independent Retailers

Independent organic stockists are typified by wholefood and healthfood shop outlets who stock a variety of goods not widely available in mainstream outlets. According to Kotler (1984), if the product line of an outlet is specialised, its clientele will also possess specific attributes. As a group, wholefood shop customers display a particularly high level of awareness of green and health issues compared to the general public and are favourably disposed towards organics (Lampkin and Stopes 1989). With a customer base so different from that of supermarkets, a crucial question arises: *do wholefood shop managers observe different organic buying motivations among their customers than supermarket managers do among their clientele?* A second issue open to inquiry here is whether the views of wholefood shop managers on the current and future state of the market are different from those of supermarket managers, given the high proportion of wholefood shop clientele who are thought to be more sympathetic to purchasing organics.

Specialist outlets have one principal difficulty in connection with the sale of fresh organic produce: that of ensuring an adequate and reliable supply of produce (Lampkin and Stopes 1989, Mintel 1991). Mintel attributes this problem to small outlets' general lack of buying power, while Lampkin and Stopes point out wholefood shops' traditional strength is in dried goods, which means they experience difficulties with the storage and handling of fresh organics. From this, it is possible that the consistency and variety of the range of fresh organics that wholefood shops sell falls short of supermarket ranges. The lengths to which supermarkets go in order to ensure a wide and consistent range for their broadly-based customers have already been described. If wholefood shops do indeed suffer from a small and inconsistent range of fresh organics, the impact this has on a clientele knowledgeable about and favourably disposed towards organics requires investigation.

To conclude, it is implied from Figure 1.1 that the role of wholefood shops in the organic market is a relatively unimportant one in comparison to supermarkets. Yet the number of small organic stockists in Great Britain rose dramatically between 1982 and 1990, and in this period, the value of organics sold in small outlets increased by 131% (Mintel 1991). In addition, supermarkets, with their "*store within a store*" campaigns, have tried to recreate the speciality feel of a small outlet in their shops. Such attempts at imitation demonstrate that the appeal of speciality outlets to all consumers cannot be underestimated, and clearly it is important to investigate the attraction such retailers hold for the public, and whether this appeal may be linked to the motivation to buy products in these outlets.

1.3.3 Greengrocers

"Greengrocers" are *small outlets who stock a wide variety of fresh produce and some common grocery items*. Like supermarkets, they have a broadly based, non-specialised clientele (Kotler 1984) which implies a large proportion of consumers with low awareness and commitment to organics. In relation to other retailers, it is estimated that the value of sales of all greengrocers' organic products is minimal, but that they have a relatively greater presence in the fresh organic produce market because of the affinity it has to their conventional line of business (Mintel 1991). In general, greengrocers source the majority of their produce from traditional wholesalers and markets whose produce is a mixture of both imported and domestically produced organics not handled by OFF, Geest or other recognised organic wholesalers (Daw *et al* 1991). Two questions arise as a result of this method of supply.

1. *Given that the majority of greengrocers do not go further than their conventional suppliers to obtain organics, do greengrocers harbour an uncommitted attitude towards organics?*

2. *As greengrocers' produce is procured from sources operating outwith the scope of recognised wholesalers, what is the likelihood that the produce which does reach the shelves does not carry a recognised standard symbol?*

This second proposition infers that there is a greater likelihood of finding unguaranteed organic produce in greengrocers than in other types of retail outlet. If both propositions are correct, it is likely that the level of demand for organics in greengrocers will be reflected in their lack of commitment. It may also be reasonable to propose that greengrocer customers, being largely non-committal towards organics, are particularly affected by factors such as inconsistent supply and uncertified produce: amongst this type of customer, such inadequacies enforce preconceptions and thus non-buying behaviour is less likely to be converted.

1.3.4 Farm Shops

Figure 1.1 shows that farm shop outlets have at most a 15% share of the organic market, yet they are often overlooked in market studies in spite of this share. In terms of size and type of operation, they represent a distinct retailer group. It is probable that their clientele resembles that of wholefood shops: because customers have to expend some effort in order to reach farm shops, they possess a considerable degree of commitment to the products which may be purchased there. As such, it is important to investigate the organic buying motivations of farm shop customers, and compare these to the buying motivations of supermarket and wholefood

shop customers. In addition, an important question is raised by the disparity between farm shop operations and those of supermarkets and wholefood shops: *does the difference in operations between farm shops and other organic retailers lead to a difference in perception of the organic market?*

1.4 Political and Industrial Impact on Organic Production

There are a number of implications arising from the government's role in the market for organic produce. On the positive side, some government driven incentives (such as their commitment to the "Polluter Pays" policy) should favour less intensive agricultural systems. On the negative side, no grants currently exist to cover the conversion and capital costs of conventional farmers who wish to turn to organic methods. This lack of support has contributed to the financial hardship suffered by farmers who have to sell their partially organic produce at conventional prices in the years before becoming certified symbol holders (Woodham 1991, McGregor and Dent 1992). A second difficulty is that government bodies, in setting quotas for the production of certain types of produce (eg potatoes), create limits on the amount of organic produce which can be produced, limits which growers believe they could surpass if they were allowed to (Intel 1991). This is ironic in view of the fact that one main barrier to the expansion of the organic market is lack of availability of produce. In conclusion, the view of the organic industry as to current government policy requires investigation.

Furthermore, there is opposition and hostility towards organic farming from the conventional farming lobby and the powerful agro-chemical companies whose inputs they rely on. A typical attitude is that of Sir Derek Barber, President of the Royal Agricultural Society, who said this year *"Without a competitive [conventional] farming industry, we would have only a collection of people in the countryside doing strange things"* (Scotsman, July 1992). Such hostility appears to have been partly derived from the results of the Murphy report which indicated a financial crisis among organic growers. It is possible that such negativism discourages conventional farmers from converting to organic and creates disillusionment among existing organic farmers, thereby affecting the growth of the market and the views of growers and suppliers.

1.5 Organic Certification and Standards

One purpose of a standard symbol is to reassure buyers of the authenticity of a product (Baker 1986). To do this, the symbol must be universal and easily recognisable. Yet until July 1992, a plethora of symbols existed to certify organic produce, each issued by a different organisation or body (principally the Soil Association, Organic Farmers and Growers and the Organic Growers' Association). These organisations guaranteed varying degrees of adherence to organic methods and this variety of symbols has often been blamed for retarding the growth of organic demand by confusing buyers and providing non-buyers with an object for their scepticism.

A contrasting view of organic standard symbols maintains that they are given little thought or consideration by either organic buyers or non-buyers. For example, a recent survey undertaken by the National Consumer Council found that symbols for organic or conservation grade products meant nothing to shoppers unless supporting leaflets were provided (Moore, 1992). Basic understanding of organic symbols is therefore very low. In addition, a survey undertaken by Which? (1991) found that respondents felt the symbol "Organically Grown" was the most useful because it was the clearest to read. They overlooked the fact that this symbol is not the tenure of any organisation and does not guarantee any minimum standard of organic cultivation. Thus, even at a time when the public is reported to be more cautious about the origins of foodstuffs (eg Mintel Green Consumer Guide 1989: 67% of respondents wanted artificial chemicals in agriculture banned or reduced), evidence shows that consumers are generally apathetic about the authenticity of organic produce. In conclusion, two factors need investigation: first, the extent to which organic symbols are recognised by buyers and non-buyers, and secondly the extent to which lack of an authentic standard symbol affects the decision to buy organics.

1.6 Consumers and Organic Buying Behaviour

Consumers are the life blood of a market (Baker 1986), thus it is vital to investigate their purchasing behaviour. Yet the study of organic purchase decision-making is complex. The purchase decision may come as a result of awareness and/or conviction. It may be the outcome of a systematic weighing up of the benefits and drawbacks of a range of alternatives. In most cases, the decision to buy organics is the result of a combination of circumstantial influences, individual perceptions and personal variables. Yet in some cases, no prior thought or perception goes into the decision to purchase. In order to discuss the major issues involved in the motivation to buy or to avoid organics, the following section will begin by introducing the organic buying motivations and non-buying reasons most frequently cited by previous studies. The section continues with a description of the attempts of two studies to link organic-buying motivation with other factors with a view to identifying market segments. The section finishes with a description of four concepts of motivation and purchase behaviour, the essence of which raises important questions for the understanding of organic purchase behaviour.

It should be noted that in this chapter and throughout the current research, the term "*motivation*" is defined according to the description given by Kotler: "A *motive* (or drive) is a need that is sufficiently pressing to direct the person to seek satisfaction of the need".

1.7 Organic Buying and Non-buying Motivations

In the Introduction, a number of influences were identified which are believed to have contributed to the growth of demand for organics: media attention paid to health; food scares; a rise in environmental concern. In addition, a number of barriers to demand were put forward: the recession, the lack of domestic growers; the negative impact of the government and conventional farming lobby. These positive and negative influences have led previous studies to nominate a number of principal organic buying and non-buying motivations. Their opinions have been vindicated by evidence from consumer surveys undertaken by Mintel (1991) and Which? (1990, cited in Boyle *et al* 1991). Each buying and non-buying motivation is investigated in this section.

1.7.1 Health as an Organic Buying Motivation

Scientific evidence does not prove that organically grown produce is any more nutritious than conventionally grown produce: in fact, the composition of organic food is very similar to that of conventional (Southgate 1991, cited in Woodham 1991). Neither is there proof that the chemical residues present in conventional produce pose a health threat (Woodham 1991). Yet in a Which? survey (1990), the majority of respondents claimed to purchase organic food either in the belief that it was intrinsically "healthier" than conventional food or through fear of pesticide and chemical residues. Thus, there exists an apparently illogical discrepancy between scientific fact and popular belief. The first question raised by this discrepancy is how the perception of organics as a healthy option has arisen. It has been pointed out that the growth in demand for organic produce during the latter part of the 1980s has coincided with an increase in media attention paid to artificial additives in food (Lang 1991), and in the appearance of a series of "food scares" (McGregor *et al* 1990; Wilkins and Hillers 1990; Armstrong *et al* 1990). Although not proven, it is generally accepted by these authors and by consumer surveys (Which? 1990, Mintel 1991) that concern over particular foodstuffs has increased the demand for organics, even for items whose content has not been the subject of media attention. Thus, although the media has focused on the particular (salmonella in eggs, listeria in soft cheeses and BSE in beef), this attention has been sufficient to stimulate concern for health in a variety of conventionally produced foodstuffs. Since 1991 however, it may be argued that the amount of exposure devoted to food safety has decreased. In addition, trade associations have introduced measures to reassure consumers: examples of these include the "lion" symbol which is now used to indicate salmonella tested eggs, and the "*Meat to Live*" campaign issued by the Meat and Livestock Commission. In the light of these developments, can it be assumed that the degree of concern over food safety which exists today is less intense than two or more years ago? In addition, given the association which has been drawn between concern over food safety and the increase in demand for organics, may it be assumed that the proportion of organic buyers motivated by reasons of health in 1992 is smaller than that of previous years? To prove these assumptions, it is necessary to discover the current degree of concern over the safety and content of foods, and whether the perception of organics in relation to these has altered as a consequence.

A further factor involved in health motivated organic purchases is that they are primarily self-oriented purchases. That is, the purchaser perceives himself or herself to be the main beneficiary of the purchase. The Smithsonian view of human beings, that of rational economic man, is that they act primarily in their self-interest (Baker 1986). If this view is accepted, then it is proposed that health is a relatively widespread motivation in comparison to other motivations where the self is not perceived to be the principal beneficiary of the purchase.

1.7.2 Concern for the Environment as a Buying Motivation

The last five years have witnessed a dramatic increase in the awareness of and concern for environmental issues (McGregor *et al* 1990; Boyle *et al* 1991; McCormick 1992). Evidently, the growth in interest for environmental issues has coincided with the expansion of the organic market, and it is asserted that a direct association exists between the two (Bloom 1991, Mintel 1991, Tate 1991). In addition, it may be argued that the merchandising of organics in supermarkets, although not explicit, carries a "green" message: the decision of Safeway and Sainsbury to include organics in the promotional material on their environmentally friendly ethos would lead to this conclusion. As well as being associated with the general green revolution therefore, organics are positioned as a "green" purchase in the minds of the customers of certain supermarkets. In previous years, consumer surveys have found environmental concern to be a principal motivation for the purchase of organics (eg Which? 1990). However, it is possible that the public's interest in green issues has dwindled subsequently (Erllichman 1992), and two questions are raised by this.

1. What is the current degree of environmental concern which exists among the public today?

2. If the degree of environmental concern has subsided, has the amount of organics purchased for "green" reasons also decreased?

There are a number of ways in which environmental concern differs from health as an organic buying motivation. First, the environmental benefits of organic agriculture enjoy more scientifically proven backing than do the benefits of health (Woodham 1991). This implies that environmental concern is a more sustainable purchase motivation than health, and one which is less likely to be undermined by the media. Secondly, and in contrast to the self-oriented motivation of health, an organic buyer who is primarily motivated by "green" concern is motivated by altruism: that is, the principal beneficiary of the purchase is perceived to be something other than the purchaser himself. One implication of altruism is that the individual must be particularly committed to the issue at stake to be motivated to buy a product for this reason. In turn, this implies that organic buyers who are motivated to purchase through concern for the environment are a particularly committed section of buyers. From this, it would be of value to investigate the extent to which environmental concern is an organic buying motivation, and whether organic buyers who are motivated primarily for this reason are indeed more committed purchasers than individuals who buy for other reasons.

There is however, a second interpretation of concern for the environment as an organic purchase motivation. This stems from the very abundance of "environment friendly" products spawned since the mid-80s, of which organics have been only one type. The demand for such products has increased so dramatically that one suspects a "trend", with the consequence that the popularity of these products may be rooted more in fashion than in genuine, altruistic commitment to the improvement of the environment. An important difference exists between these two types of motivation. While the latter infers product commitment and sustained buying behaviour, fashion as a motivation implies self-oriented, short-term purchasing behaviour (see "Fashion as a Buying Motivation"). While the trend is sustained, demand experiences dramatic growth: a trend is usually short-lived however, and demand retracts equally dramatically. If the growth in "green" consumerism has indeed stagnated recently, this may indicate that many green purchases have been in reality fashion purchases. As such it is crucial to investigate the possibility that environmental concern is now a less commonly cited organic buying motivation than it was two years ago.

1.7.3 Ethical Concern as an Organic Buying Motivation

An ethical or moral purchase may be defined as: *a purchase in which the buyer is motivated by an altruistic objective or ideal*. In the case of food purchases, this can involve a range of concerns from cultivation or rearing methods to the processing and packaging of an item. To retailers, ethically motivated purchasers are valuable because they are committed to and knowledgeable about the product, which implies regular, long-term purchasing. However, the importance of ethical considerations in the decision to buy organics is unclear. Some authors are reluctant to make any association between public concern surrounding modern agricultural methods and the growth in demand for organics (Dent 1988, Boyle *et al* 1991). These authors implicate ethical concern in their discussion of environmental concern as a motivation to purchase organics. Nevertheless, it has been found that individuals who show a degree of concern for ethical issues are more favourably disposed towards organics (McGregor *et al* 1990). If, as it has been suggested by Jill Moore of the National Consumer Council (Scotsman 1992), a growing number of consumers include ethical considerations in their interpretation of food quality, the importance of ethical concern as an organic buying motivation should not be overlooked. It would be useful to investigate the level of concern surrounding ethical issues among the public today, and the importance organic buyers place on ethical considerations in their decision to buy organics.

1.7.4 Taste as an Organic Buying Motivation

There are conflicting views surrounding the importance of taste as an organic buying motivation. A substantial 20% of the 1990 Which? survey respondents claimed taste was their most important organic-buying reason, while a survey carried out by McGregor *et al* in the same year found only a small minority chose taste as their prime reason for purchase. Three problems are associated with taste as an organic buying motivation. First, good taste or flavour is subjective, and is not perceived in the same way by different people. Indeed, it is possible that with selective perception, the committed buyer believes the organic item tastes better because he or she is convinced of the other benefits of the item (Baker 1986). Secondly, the taste of one line of produce can vary significantly according to season, freshness or simply from item to item. A third problem associated with taste is its nature as a benefit: with health or environmentally motivated purchases the buyer is convinced of the benefit which will ensue from the purchase, but taste cannot be guaranteed until the product is consumed, after the purchase has been made. Supermarkets have tried to combat these difficulties with measures such as in-store tastings, but the results of such actions are unpredictable. From this discussion, it is proposed therefore, that taste is perceived by both buyers and retailers merely as a supplementary benefit of organics, not as a primary buying motivation.

1.7.5 Novelty as an Organic Buying Motivation

While the previous purchase motivations imply some form of preconception or knowledge of a product, "novelty" implies no prior attitude or awareness. A novelty purchase may be defined as *an opportunistic or impulse buy, where the decision to purchase is made on the spot*. Little has been written about novelty as a buying motivation for organics. One explanation is that for retailers, novelty is a less desirable motivation to encourage than either health or environmental concern because a customer is less likely to repeat a purchase if no intrinsic benefits are perceived beforehand. It is possible that a novelty purchase satisfies an individual's need for variety or for a treat, but clearly many of the influences contributing to the buying decision are circumstantial. It is impractical to pin-point such circumstances here because they vary from buyer to buyer. However, novelty should not be rejected because in terms of ensuring long-term sustained demand, a retail outlet which has a large proportion of novelty-motivated organic purchasers among its clientele is at a disadvantage to one which has the majority of its customers motivated by the perception of a sound benefit. Therefore, it is important to measure the instance of novelty as an organic-purchase motivation, particularly in relation to the customers of different types of retail outlet.

1.7.6 Fashion as an Organic Buying Motivation

"Fashion" may be considered a motivation which satisfies one of two purchaser needs (Wilkins and Hillers 1990). First, a fashion-motivated purchase may satisfy the purchaser's need to feel a sense of belonging. In relation to organics, this type of motivation would represent those who have been "swept along" by the tide of green consumerism and who have purchased organics ostensibly through environmental concern, but in reality to follow the lead of their peer group. Secondly, a fashion-motivated purchase may satisfy the need for enhanced status. Fashion has been overlooked as a purchase reason by previous studies, possibly because of the difficulty in measuring its influence directly from respondents: buyers are more likely to give "acceptable" motivations such as health or environmental concern to describe their behaviour. Two issues are proposed in relation to fashion as an organic buying motivation.

1. Fashion-motivated purchases are short-lived by nature and thus, the proportion of organic buyers purchasing for fashion today is likely to be less than that of the organic "boom" period.

2. Fashion is most likely to be cited by non-buyers as a purchase reason because it is an "unacceptable" reason to purchase.

1.7.7 Organic Price as a Non-Buying Motivation

The high price of organics is a most frequently-cited barrier to purchase. For example, an overwhelming 84% of respondents to a 1990 Harris poll claimed they would buy organics if they were cheaper (Boyle *et al* 1991). Unfortunately, there does not appear to be any indication that the price of organics is decreasing. While Peter Seggar of OFF estimated that fresh organic produce cost on average between 25-30% more than conventional (Erlichman 1992), in 1992 Safeway's premiums were found to range between 50% for carrots and 150% for red cabbage (CPL Scientific Survey 1992, cited in Erlichman 1992). However, it may be argued that price is a particularly solid purchase barrier for less interested consumers (irrespective of the given premium level), because they have decided that a product is too expensive to purchase, they will be less likely to check prices regularly even if they do decrease. Nevertheless, it follows that the longer organic premiums stay high, the more likely it will be that preconceptions will become fixed. As it has been proposed that a greater proportion of supermarkets' clientele consists of consumers who are less interested in organics, it also follows that high premiums will be particularly detrimental to their demand.

Much research has been undertaken by supermarkets to measure the importance of price as a barrier to organic purchase. In 1989, Safeway undertook experimental research into the price elasticity of fresh organic produce: over 23 weeks, the premium levels of various produce items in 20 selected stores were carefully controlled to measure the fluctuations in demand arising from adjustments in the level of organic premium. The results of this experiment showed that overall, a reduction in prices lead to a 25% increase in sales volume (Hunter 1990). This may appear to be a small increase. However two main criticisms could be directed at the methodology of this experiment. First, the premium experiment was undertaken conjointly with a remerchandising campaign: in total, this left only a short four-week period when the effects of the experiment could be analysed without the interference of remerchandising. Secondly, the reductions in organic premium were not promoted at the point of sale. It has already been proposed that less interested consumers are unlikely to regularly check the price of an item which they have found in the past to be too expensive. As the prime objective of a price reduction is to convert non-buyers (Baker 1986), it follows that some point of sale advertising is necessary to reverse the preconceived notion and encourage trial. In contrast, for two weeks in 1992, Tesco sold its organic range at the same price as conventional, advertising the reduction at the point of sale. This campaign resulted in a 300% increase in sales (Erlichman 1992).

While supermarket stocking policies have come under criticism for creating unnecessarily high price barriers, less attention has been paid to the levels of organic premium imposed by wholefood shops and greengrocers. It is possible that wholefood shops will not be obliged to charge as much for their organics in view of the fact that they incur less transportation, processing and wastage costs compared to supermarkets. In addition, given the evidence that greengrocers stock organics on a more ad-hoc basis (Daw *et al* 1991), it is possible that these retailers only select organics when they consider the price to be acceptable for their customers. From this it is proposed that organic price is less of a purchase barrier to the customers of wholefood shops and greengrocers than those of supermarkets.

1.7.7 Appearance as a Non-Buying Motivation

The unappealing appearance of fresh organic produce has frequently been put forward as a reason why people do not buy organics (eg Woodham 1991, Tate 1991). However, survey research has shown that in reality, the importance of this non-buying motivation has been overplayed. For example, results from the 1991 Mintel consumer study showed only 1% of respondents would never buy organics because they looked unappealing. Mintel went on to conclude that appearance was "almost irrelevant" as a reason for avoiding organics. In addition, a Which? survey undertaken in 1990 found only 2% of respondents chose off-putting

appearance as their most important non-buying motivation. Both results are ironic in view of the lengths supermarkets go to ensure only perfect-looking produce appears on their shelves, with evidence to suggest that in so doing, the price and wastage levels of organics are increased. Nevertheless, it is reasonable to assume that the purchase barrier of appearance is linked to knowledge of the product because if consumers are knowledgeable about the organic process, they will appreciate that variations do occur as a consequence. If appearance is a non-buying motivation for some consumers, it is possible therefore, that it will be a more prevalent barrier to purchase for those with less knowledge and commitment to organics. Given the broad customer base of supermarkets, it is possible that organic appearance is more of a purchase barrier to customers of these outlets than to the clientele of wholefood shops.

1.7.9 Availability as a Non-buying Motivation

The difficulties which retailers have in procuring an adequate and consistent supply of organics have already been discussed. Nevertheless, survey research suggests that the lengths to which supermarkets believe they must go to ensure availability in-store should not be without reward. In 1991, 15% of respondents to the Mintel consumer survey claimed they would always buy organics if more were available, while "not widely available" was the most commonly cited non-buying reason for Which? survey respondents in 1990 (33% gave this as the most important reason for not purchasing). Such findings are intriguing in view of the evidence that organics are more widely available than ever before: they suggest that the potential demand for organics is very high. Yet it is possible that previous surveys have placed too much importance on the barrier of availability because of respondents' desire to cite an "acceptable" reason for not buying the product under discussion (Tull and Hawkins 1987). Two main questions arise from the discussion of availability.

1. How important a non-buying reason is lack of availability of organics to the public today?

2. Given the evidence of supermarket buying power and commitment to stocking organics, is availability more of an organic purchase barrier in specialist outlets and greengrocers than it is in food multiples?

1.7.10 Lack of Interest as a Non-buying Motivation

In previous surveys, it may be argued that "lack of interest" has been overlooked as a non-buying reason. This is because of the unlikelihood of respondents admitting to disinterest in a subject while being surveyed (Tull and Hawkins 1987). In the 1991 Mintel consumer survey for example, respondents were not offered a specific response to indicate their disinterest in organics: it must be presumed that responses from individuals with no interest were resigned to the category "*I would never buy organics for other reasons*". In the 1990 Which? survey, 20% of respondents gave the reason "*Happy with food currently purchased*", which implies that they were disinterested in organics, yet this cannot be assumed with certainty. It is possible that previous surveys have assumed that if an individual is put off organics by reasons of expense or appearance, lack of sufficient interest is a consequence of these barriers. It may be argued however, that disinterest should be regarded as a non-buying reason in its own right. In the case of individuals who do not buy a product because of its price, appearance or availability, it is implied that at some point they have weighed up the product's benefits and drawbacks. A certain degree of awareness and knowledge (even if this is erroneous) exists. However, it is possible that those who are put off organics primarily through lack of interest are either unaware or uncaring of both the benefits and drawbacks of a product. In addition, there is no guarantee that once disinterest has been overcome, other non-purchase reasons such as price, appearance or availability will replace it. Thus lack of interest as a buying motivation presents two levels of resistance. A further reason for considering lack of interest in its own right follows from the beginning of this section: if survey respondents are reluctant to admit disinterest in a topic, it is probable that the importance of lack of interest in relation to other organic non-buying reasons is greater than may be ascertained from previous studies.

1.7.11 Scepticism as an Organic Non-buying Motivation

Scepticism surrounding the benefits of organics is a second non-buying reason which has been overlooked by surveys. It could be argued that it is similar to lack of interest as a non-buying reason because it implies an "added level" of resistance to the product on top of price, appearance and availability. Thus, even if a sceptical non-purchaser became favourably disposed towards organics, there is no guarantee that he or she would be willing to overcome the common purchase barriers of price or availability. However, scepticism differs from disinterest in that it is likely that the purported benefits of organics are understood by the individual. It appears that scepticism may relate to a number of factors. First, it may arise from the belief that the benefits of organics are unsatisfactory: for example, people may be suspicious of the lack of scientific proof which surrounds the claimed health benefits of organics.

Secondly, scepticism may be directed at the motives of the growers and suppliers involved: to a sceptic, the high price may be attributable to profiteering on the part of the suppliers, even if they are aware of the industry's justification of price premiums. Furthermore, the 1990 Which? survey found that 2% of respondents did not buy organics because they were "*Impossible to guarantee*": a scepticism surrounding the ability of the organic industry to ensure the certification of produce. It is possible that little attention has been paid to scepticism because such non-buyers are clearly the most resistant to the produce and their buying behaviour is consequently most difficult to convert. However, it is important to measure the level of scepticism for two reasons. First, given that organic premiums are still high and availability is still restricted, the current proportion of organic sceptics may be growing. Secondly, the proportion of sceptics within the clientele of different retailer types may vary: it is proposed that the wider public cross-section of a supermarket's customer base will contain a greater number of sceptics than the clientele of a specialist outlet.

1.8 Analysing Organic Buying Behaviour

The main buying and non-buying motivations of organic consumers have been introduced. While it is important to single each one out for consideration, a decision to purchase is not made in a vacuum (Baker 1986): circumstantial, social and psychological factors all play a part, some of which have been described in the description of buying and non-buying motivations. Mintel (1991) and McGregor *et al* (1990) take account of these by linking the decision to buy organics with other purchase or non-purchase influencing factors. These approaches are important for two reasons: not only do they raise important questions about organic buying behaviour, they are also of use because of their attempt to rationalise the multitude of factors which influence the decision to buy or to avoid organics.

The first approach to be discussed is that adopted by Mintel (1991). Here, organic buyers and non-buyers are categorised by the demographic characteristics of age, sex, occupation and socio-economic status. With this method, Mintel found that in terms of age, organic buyers are most likely to be between 25 and 35 years old, while in terms of sex, they are more likely to be female. The survey also found that organic buyers are likely to fall into the "professional" occupation category and the ABC1 socio-economic category. The predominance of organic buyers amongst a young age group and ABC1 category may be explained as follows. First, this survey took place while the growth in demand for organics was still increasing dramatically, and while organics were perceived to be expensive, it could be argued that they were also "fashionable" at this time. These two factors would have appealed to an age and socio-economic grouping which adopts new products quickly and has the disposable income to accept price

premiums (Baker 1986). The proliferation of mothers in the organic-buying population appears to stem from the desire to buy healthy products for offspring as a result of adverse media attention paid to conventional products. However, given that the impact of the recession in 1992 was nationwide, green purchases are no longer as fashionable and that less media attention is paid to food safety, the following questions are raised in connection with the demographic characteristics of organic buyers:

1. Does the impact of the recession mean that organic buyers are concentrated even more in the ABC1 socio-economic categories?

2. Does the lack of media attention and food scares mean that the organic buying population is less concentrated in the female sector?

Thus, it is proposed that the dual impacts of recession and less media attention have not only reduced the organic buying population, they have also changed the nature of this population in terms of demographic characteristic.

While segmentation by demographic characteristic does have the advantage of raising questions about the social and economic factors which may influence demand, a better understanding of the reasons underlying differences and similarities in actual consumption behaviour may be achieved by exploring the nature of preferences (Baker 1986). Such an approach is adopted by McGregor *et al* (1990), who link the level of interest in "green", ethical and health issues to an individual's attitude towards organic purchase. Analysis found that people with a high degree of interest in these issues were more favourably disposed towards organics than those with little interest. For example, individuals who demonstrate knowledge and concern for ethical issues involved in food production tend to be at least favourably disposed towards organics, and are likely to be organic purchasers. This was also found to be true for individuals with an interest in green and health issues. Conversely, it was found that individuals with a low level of interest in and knowledge of green, ethical and health issues are very unlikely to be organic buyers. Like the Mintel survey however, this study took place when a reasonably high level of media attention was being paid to issues of ethical and environmental concern, and the recession had not yet become a national problem. These factors raise two questions in relation to people's perception of issues linked to organics:

1. Does the current lack of media attention on health issues mean that people are less concerned about them in general and thus are less likely to buy organics for health motivation?

2. Does the current recession render people less interested in environmental issues and thus are less likely to be motivated to buy organics for these reasons?

1.9 Concepts of Buying Behaviour

Theories of buying behaviour are criticised for failing to be context specific (Baker 1986). However, the application of concepts to what is known about organic buying behaviour gives rise to a fuller understanding of what influences this behaviour. Of all the theories and concepts of buying behaviour which exist, four are the most compelling in relation to organic buying behaviour. These concepts are: Herzberg's theory of motivation (House and Widgor 1967, cited in Kotler 1984); Maslow's hierarchy of needs (1954, cited in Kotler 1984); Lavidge and Steiner's hierarchy of effects model (1961, cited in Kotler 1984) and Baker's concept of an individual's evaluation of price and value (1986). Each concept is described in turn.

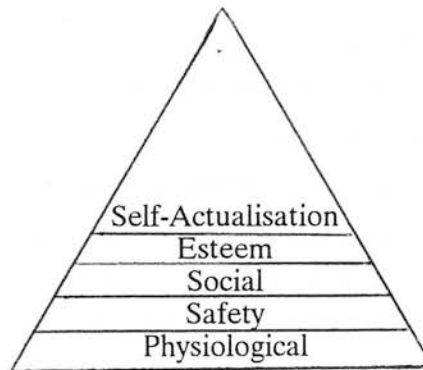
1.9.1 Herzberg: Theory of Motivation

This theory was first used to describe job satisfaction and motivation, although it is often quoted in relation to consumer buying behaviour. It involves a two-factor theory of motivation which distinguishes between *dissatisfiers* (factors that cause dissatisfaction) and *satisfiers* (factors that cause satisfaction). Herzberg argues that in any decision-making situation, an individual is faced with both types of factor, and that an important difference exists between these. The existence of *dissatisfiers* will dissuade the individual from purchasing a product. However, even if the individual perceives no dissatisfiers with a given product, this will not, according to Herzberg, automatically lead to the purchase being made. This is because the lack of a dissatisfier in a product does not lead to the perception of an intrinsic satisfaction in the product. Only with the existence of a product *satisfier* will the purchase be made, because this is a source of intrinsic satisfaction. In relation to the decision to buy organic, the non-buying reasons of price and availability could be considered as *dissatisfiers*. Thus, a poor inconsistent selection of organic produce and the existence of a high premium causes many people to claim they do not buy organics. According to Herzberg however, neither the reduction in organic premium nor the presence of a consistently wide selection of organics would guarantee the conversion of the behaviour of non-buyers. The decision to purchase takes place only if positive benefits in organics are perceived in addition to the existence of a low price and adequate availability. Examples of positive benefits include the perception of organics as a healthy or environmentally friendly product.

Herzberg's theory highlights the importance of those factors which create the desire to purchase organics: media attention devoted to conventional production systems; food scares; a societally driven concern for the environment. From this, the following question is raised: *do people avoid buying organics more because they do not perceive satisfiers rather than because they do perceive dissatisfiers?*

1.9.2 Maslow: Hierarchy of Needs

The hierarchy of needs described by Maslow is a widely known and fundamental concept of human behaviour. Maslow seeks to explain why individuals are driven by particular needs at particular times. He asserts that each individual has different needs which may be categorised under the following headings: Physiological needs (hunger, thirst); Safety needs (security, protection); Social Needs (sense of belonging); Esteem needs (self-esteem, recognition, status); and Self Actualisation needs (self development and realisation). These needs are arranged in the following hierarchy:



Maslow asserts that only when the most basic need is satisfied will an individual seek to satisfy the next set of needs in the hierarchy. Thus, only when an individual's basic physiological needs of hunger and thirst are satisfied will he seek to satisfy his need for shelter.

It may be possible to associate organic buying motivations with the categories of need described here. For example, it may be that individuals who are motivated to buy organics because they believe it is fashionable to do so are motivated by the need to follow in the footsteps of their peer group or by the need to feel they are leading the field in innovative food purchases. This would be motivation according to social or esteem needs. On the other hand, a committed buyer may go to some effort and expense to buy organics frequently, their motivation being to feel that he or she is contributing to the prevention of the destruction of the environment. What has been termed an "altruistic" motivation would, according to Maslow, be an attempt to fulfil the need for self-actualisation.

Alternatively, an organic buyer may be a committed, frequent purchaser on medical advice. This motivation to purchase could be looked upon as a way of satisfying safety needs. The study of Maslow's theory raises the following question: *in times of recession, are buyers who satisfy safety needs with organics more immune to price premiums and lack of availability than buyers who satisfy esteem needs with organics?*

1.9.3 Lavidge and Steiner: Model of Buying Behaviour

This concept views an individual's decision to purchase a product as being the result of a process, and that before a person decides to purchase a product, the following sequential stages are undergone:

Unawareness - Awareness - Knowledge - Liking - Preference - Conviction - Purchase

The first implication of the Lavidge and Steiner model is that for a purchase to take place, the purchaser must be aware of a product's existence. This requirement appears self-evident, yet the issue of awareness raises several important questions in relation to organic buying behaviour. First, if awareness of a product is necessary to purchase, it is important that as many consumers as possible are aware of organics. The main question therefore is: *what is the current extent of awareness of organics among the public today?* A second question relevant here is the source and length of an individual's awareness of organics. Marketing theory states that the longer individuals have known about a product, the more likely it is that they will be purchasers (Baker 1986). In addition, it is asserted that individuals are more likely to become purchasers of a product if they first find out about it from a "personal" source (eg friend or family member) than from an "impersonal" source (the media or a shop promotion). Given these theories, two questions are appropriate here.

1. *What are the relative lengths of awareness of organic buyers and non-buyers and have organic buyers been aware of organics longer than non-buyers?*
2. *Through what means did buyers and non-buyers first become aware of organics and are organic buyers more likely to enjoy personal sources of awareness than non-buyers?*

A further issue relevant here is associated with impersonal sources of awareness. Consumers are bombarded daily with countless pieces of information from the media and from shop promotions which are designed to stimulate awareness of products. Yet the stimuli consumers are most likely to receive are those pieces of information which they find appealing and

interesting (Baker 1986). As such, the primary purpose of an organic awareness campaign should be to exploit the "message" which non-buyers are likely to find the most appealing and associate this with organic produce. The message chosen most often by supermarkets (eg the Safeway "Shout about Organics" campaign of 1989) appears to be a "green" message. But is this message likely to create interest in organics among non-buyers? If the public is now relatively disinterested in green issues, it is unlikely people will respond positively if at all to this type of message for organics. To test this, it is necessary to investigate the importance which people currently place on environmental issues.

The second implication of the Lavidge and Steiner model is that for an individual to purchase a product, they should be knowledgeable about the product as well as aware. Knowledge is distinct from awareness because an individual can be aware of something without understanding what is involved, and the ability to show knowledge of a product implies a greater likelihood of the benefits of the product being perceived by the individual and thus, of the individual being a purchaser. In terms of organic buying behaviour, evidence shows that non-buyers are less likely to be knowledgeable about organics than buyers (McGregor *et al* 1990). It is also understood that degrees of knowledge of a product may have a bearing on whether or not the individual is a buyer or a non-buyer (Wilkins and Hillers 1991). Thus, individuals who possess a better understanding of the organic process and its social and environmental implications are more likely to be organic buyers than those with a more restricted understanding of the term. As such, three questions are raised.

1. *What is the current level of knowledge of organics which exists among the public today?*
2. *What is the type and degree of knowledge which exists among buyers?*
3. *Is this different from that possessed by non-buyers?*

The issue of knowledge also arises in the discussion of the effectiveness of supermarket promotional campaigns for organics. As the object of such campaigns is to increase awareness and knowledge of a product, the effectiveness of the Safeway "Shout About Organics" campaign could be measured by the type of knowledge which persists among the general public. It is important therefore, to investigate whether the current level of knowledge which exists among the public reflects the information provided by supermarket merchandising campaigns.

The final implication of the Lavidge and Steiner model is that awareness and knowledge must be succeeded by preference or liking for a product before a purchase takes place. The addition of this stage would explain why many people who are sceptical about organics are also well-

informed: thus acceptance of the purported benefits of organics is not an inevitable consequence of knowledge of these benefits. However, there are two principal limitations of the Lavidge and Steiner model. The first limitation is that the model implies that all individuals undergo the same steps in the awareness to purchase process: thus, it does not take account of purchases made by people who were previously unknowledgeable or even unaware of organics (eg "novelty" purchases). A second limitation is that the model does not take account of those knowledgeable individuals who express a preference and liking for organics and yet still do not purchase the produce. The behaviour of such consumers may be explained by the following concept.

1.9.4 Baker: Price and Value Concept

This concept brings together the issues of price, preference and the perceived value for a product. Baker (1986) asserts that the decision to purchase a product comes as a result of individuals' mental trade-off between what they desire to purchase and what they believe they can afford. In this process, the liking for one product is also balanced against alternatives in the attempt to achieve maximum value for money. Thus, while individuals may have a preference for organics, the existence of a high premium may outweigh the perceived benefits of organics, leading to a greater preference for the attributes of conventional produce, and therefore the motivation to purchase these as an alternative. In addition, the sacrifices traded off with the benefits of organics need not necessarily be financial ones. For some, organic purchase is desirable but, because of its lack of availability, the effort required to purchase it regularly may mean that alternatives are purchased instead. The implication of high price and lack of availability in a trade-off with value raises the following question: *are the oft-cited non-buying reasons of price and lack of availability more correctly ones of lack of value?* The perception of these purchase barriers in this way is important to the supply side of the organic market. If people do not buy organics because they do not value them highly enough over alternatives, the efforts of wholesalers and retailers may be well served by a strategy of encouraging value in addition to their current strategy of lowering prices and increasing availability. A second implication of this concept is that the desirability of a product in relation to other products is not static over time (Baker 1986). An increase or decrease in a person's disposable income may make people switch their behaviour to buy or to avoid organics in the face of alternatives. Alternatively, a food scare may instil sufficient concern about alternatives to make people perceive the benefits of organics as outweighing the previous purchase barriers of price, lack of availability or even scepticism. To conclude, investigation of the level of value attributed to organics by the general public is particularly important in the aftermath of the recession and in the face of a reduction in media attention paid to food health and safety.

SECTION I

2 Statement of Research Hypotheses

From the discussion of the organic market presented in Chapter 1, a number of questions have been raised which require investigation. In this chapter, hypotheses are proposed which are classified under four headings: organic buying behaviour; organic non-buying behaviour; the supply and availability of organics, and organic retailers' opinions of the market. The hypotheses listed here represent the crucial questions to be investigated by this research.

2.1 Hypotheses Relating to Organic Buying Behaviour

1 Mintel (1991) and Boyle *et al* (1991) put forward a number of primary organic buying motivations, of which concern for health, concern for "green" issues and improved taste are the most important. In addition, the discussion in Chapter 1 highlights the importance of impulse purchases in relation to organics. From this, it is proposed that *the most important and widespread reasons to provoke organic purchase are "concern for health" and "concern for the environment", while "improved taste" is a lesser, supplementary benefit and "perception of novelty" is more important than indicated by previous studies.*

2 In terms of interest in organics, wholefood shop customers represent a favourably disposed section of the public (Lampkin and Stopes 1989), while the broad-based clientele of supermarkets (Kotler 1984) has a lower interest level more representative of the general public. The discussion of buying motivations in Chapter 1 proposed that high interest in a product often goes hand in hand with an altruistic buying motivation. The following hypothesis is put forward: *that genuine, altruistic concern for the environment is a more commonly experienced buying motivation among customers of wholefood shops and farm shops than it is among customers of supermarkets.*

3 The discussion of buying motivations in Chapter 1 also concluded that in general, a greater proportion of supermarket customers have low awareness and knowledge about organics than do wholefood shop customers. As the buying reason of novelty infers no prior knowledge or awareness of a product, it is therefore proposed that *"perception of novelty" is a more common organic buying reason among supermarket customers than it is among customers of either wholefood shops or farm shops.*

4 The previous chapter states that individuals who show an active concern either for their health, the environment, or for moral or ethical issues in food production are more likely to have an interest in purchasing organics (McGregor *et al* 1990). This information leads to the proposal *that the majority of organic purchasers are distinguished by their active commitment to green, health or ethical issues.*

5 Chapter 1 describes buying behaviour as a sequence which begins with awareness of a product, continues with interest in the product and ends with the decision to purchase (Lavidge and Steiner 1961). The length of awareness and source of awareness of a product can alter the reasons why the product is bought and may indeed determine whether the product is purchased at all (Baker 1986). With this information, it is proposed that awareness distinguishes organic buyers from non-buyers in three ways.

1. That organic buyers have been aware of the term "organic" longer than non-buyers.

2. That organic buyers have become aware of organics through personal means, while non-buyers have become aware through impersonal means.

3. That awareness of organic symbols is greater among organic buyers than it is among non-buyers and that this factor has a bearing on purchase behaviour.

6 Two hypotheses are proposed in relation to public knowledge of organics. First, levels of knowledge surrounding a product may vary by degree (Wilkins and Hillers 1990), and individuals with a fuller understanding of a product are likely to be buyers of the product. From this it is proposed *organic buyers enjoy a fuller understanding of the term "organic" than do non-buyers.* Secondly, given the selling power and wide customer base of supermarkets, it is proposed *that the type of knowledge of organics possessed by the majority of the public will reflect information provided by supermarket and media-driven promotions.*

7 Which? (1990) and Mintel (1991) attempt to distinguish organic purchasers by studying the demographic characteristics of the individuals participating in their surveys. Their results found that the most likely organic buyers were young women of relatively enhanced social status. Yet in Chapter 1 it is asserted that the recession and the stagnation of interest in green products and food safety would impact against this type of buyer. Therefore, the current research will attempt to prove or disprove *that the current population of organic purchasers are less likely to be female and be less concentrated in the ABC1 socio-economic category.*

8 Chapter 1 has suggested that smaller-sized retail outlets, such as greengrocers or wholefood shops, hold a particular attraction for the public. The current research will attempt to determine what factors are involved in this attraction, and what factors are involved in the appeal of a larger outlet such as a supermarket.

9 The discussion thus far has identified three recent negative impacts on the organic market: the recession, the paucity of media attention devoted to food adulteration, and evidence of a slump in public interest in green products. As a result, it is proposed *that the current ratio of organic buyers to non-buyers within the general public is below the level predicted by studies of the organic market undertaken prior to 1992.*

2.2 Hypotheses Relating to Organic Non-buying Reasons

10 Chapter 1 discusses non-buying reasons which have been identified in previous years by different authors (Boyle *et al* 1991, Mintel 1991, Woodham 1991). With a view to investigating the most important non-buying reasons which exist today, the following hypothesis is proposed: *that high price and insufficient availability constitute the most important non-buying reasons, that imperfect appearance is less important and that scepticism about organics is a non-purchase reason more commonly perceived than has been indicated by previous studies of the market.*

11 The previous chapter has discussed the difficulties of obtaining unbiased information in response to questions on non-buying behaviour. Survey respondents are frequently unwilling to admit lack of interest in a subject under discussion (Baker 1986). Such difficulties lead to the proposal *that "lack of thought about organics" is a more common non-buying reason than previous studies of organic demand indicate.*

12 It has been concluded that in general, supermarket customers are less knowledgeable about organic production methods than are wholefood shop customers. As a result, imperfect appearance and high price are less acceptable to shoppers in supermarkets than to those in wholefood shops. In addition, supermarkets are accused of charging particularly high prices for their organic produce (Woodham 1991). These conclusions lead to the proposal *that high price and imperfect appearance are more important barriers to purchase for customers of supermarkets than to customers of wholefood shops.*

13 Wholefood shops incur difficulties in the supply of fresh organic produce (Lampkin and Stopes 1989). It is therefore proposed *that lack of availability is a more prevalent barrier to purchase among wholefood shop customers than it is among supermarket customers.*

2.3 Hypotheses Relating to Organic Supply and Availability

14 While wholefood shops experience logistical difficulties with fresh organics (Lampkin and Stopes 1989), supermarkets expend effort in assuring their customers a consistently wide range (Woodham 1991). As a result, this study proposes *that the width and consistency of the range of fresh organic produce stocked by wholefood shops is generally inferior to that of supermarkets.*

15 Supermarkets are accused of passing the costs of their stocking policy on to consumers (Woodham, 1991). In addition, they use a considerable amount of imported produce (Berry and Lydford 1990). These facts lead to the proposition *that the premium charged for organic produce in comparison to conventional is greater in supermarkets than it is in wholefood shops and greengrocers.*

16 Supermarkets are also accused of incurring high levels of wastage as a result of their policy to secure a maximum amount of produce on their shelves at any one time (Woodham 1991). This accusation leads to the following hypothesis: *that the level of wastage of organics incurred by supermarkets is greater than that of wholefood shops.*

17 Murphy (1992) indicates that the adoption of organic methods has not increased at the same rate in all the regions in the UK. The fact that the amount of organic farming carried out in some areas of England is greater than in other areas leads to the following proposal: *that the Midlands, South East and South West of England enjoy greater availability of organics than the North, Scotland and Wales, and that the price of organic produce is lower in areas where availability is high.*

18 The organic stocking policy of supermarkets has come under a degree of scrutiny in Chapter 1. It has also been asserted that the source of produce procured by a retailer will have a bearing on produce price and freshness. To aid investigation of this theory, the following is proposed: *that supermarkets rely more on imported produce than local produce.*

2.4 Hypotheses Relating to Retailers' Opinions of the Market

19 Supermarkets have a wide customer base while wholefood shops have a more specialised clientele (Lampkin and Stopes 1989). It is proposed therefore, *that while wholefood shop managers perceive organics as presenting a mainstream opportunity, supermarket managers perceive the organic market to be a niche market.*

20 In Chapter 1, a number of recent negative impacts on demand were identified. In addition, retailers were already predicting a drop in organic sales in 1990 (Mintel 1991). This information leads to the hypothesis *that the attitude of retailers to the current and future state of the market will be more negative than the views expressed in studies undertaken prior to 1990.*

21 In the previous chapter, a discussion of the UK organic supply structure has shown that organic retailers are confronted with different types of obstacle in their involvement in the organic market. While logistics provide the major problem for wholefood shops, the greatest difficulty facing supermarkets is in attracting demand from their broad-based clientele. From this information comes the proposal *that the views of organic retailers as to the most important barriers facing the organic market will vary according to their type of business.*

22 Regional variations appear to exist in the level of organic supply across Great Britain (Murphy 1992). As a result, the operations of organic retailers may vary according to their regional location. A consequence of this is *that the attitude of retailers to the current and future states of the market will vary according to their regional location.*

23 As a result of evidence that supermarket and wholefood shop operations differ substantially, it is proposed that *wholefood shops and supermarkets will have different attitudes to the state of the conventional market.*

The hypotheses listed above provide the focus for the current research, and the following chapters describe the process undertaken to test and evaluate the validity of these hypotheses.

SECTION II

3 Research Methodology

This chapter describes the methodology used to generate the information required to test the hypotheses outlined in Chapter 2. The chapter begins with a description of the steps involved in conventional marketing research design and continues with an explanation of the research problem and the data collection method used for this research. This is followed by details of the sampling and measurement techniques, finishing with a description of the questionnaire design and testing.

3.1 Introduction to Methodology

Research problems may be solved by using either primary or secondary data. In relation to this research, secondary data came in the form of previously undertaken consumer surveys of organic buying behaviour. However, the information supplied by these surveys is neither precise nor detailed enough to test the research hypotheses outlined in Chapter 2. It was decided that primary research should be undertaken to collect this information. In conventional marketing research, primary research involves a number of stages (Tull and Hawkins 1987):

- 1 Definition of the research problem
- 2 Selection of the research method
- 3 Selection of the sample
- 4 Selection of the measurement technique
- 5 Selection of the analytical approach

The selection of a particular method or technique at each stage will depend on the time and resource restrictions of the researcher and the type of information required to test the research hypotheses. This chapter will describe the methods and approaches selected for each stage of this research.

3.2 Research Problem Definition

Two main questions arise from a preliminary study of the market for organic produce:

- 1 What motivates different people to purchase or to avoid organics?
- 2 How does the current state of organic retailers' operations reflect or impact on the organic market? (compared with 2-3 years ago).

In order to approach these two questions, the following information is required:

- 1 The main buying and non-buying motivations which exist among the public today.
- 2 Organic buyers' and non-buyers' attitudes towards green, health and ethical issues and towards each others' purchasing or non-purchasing behaviour.
- 3 Demographic information on organic buyers and non-buyers.
- 4 Details of organic retailers' range, price, supply and wastage of organics.
- 5 Retailers' opinions as to the current and future state of the organic market and its barriers.

3.3 Research Method

Primary research involves a choice between experimentation or surveying as the research method. In this research, it was decided to use a survey method for two reasons. First, experimentation (which could have taken the form of in-store testing of promotional material or organic price elasticity) was impossible to undertake without the cooperation of supermarket or other store managers. Experimentation also involves great expense. The second reason for choosing surveys related to the type of information required to test the hypotheses. Information requirements were specific and needed to be directed at particular types of respondent. Furthermore, the need for information on attitudes necessitated direct interaction with respondents. Testing the hypotheses required that information was collected in two groups of survey based on organic retailers and the public.

3.3.1 Retailer Survey

Four retailer groups were surveyed. These were: **wholefood shops, supermarkets, greengrocers** and **farm shops**

In terms of sales value of organics, these four groups account for the largest part of the current organic market. Not only was each group important to this research in terms of their organic sales value, but a survey of each was thought to highlight specific differences in operations and the buying motivations of clientele. For instance, a survey of supermarkets' organic prices and wastage levels would reveal information on their stocking policy. A survey of wholefood shop managers' views would indicate the proportion of committed, altruistic buyers among their clientele. A survey of greengrocers' buying policies would reveal information on their commitment to organics, while a survey of farm shops' organic sales would reveal information on their attitude towards the organic market.

3.3.2 Public Survey

Two separate surveys of the public were undertaken. These were a survey of the general public and a second aimed specifically at organic consumers.

It was important to survey a sample of the general public for a number of reasons. First, three main areas of information vital to the research hypotheses would be collected: the buying motivations and non-buying reasons from organic-buying and non-buying members of the public respectively; the attitudes of the public to green, ethical and health issues in food purchases; and the demographic characteristics of organic buying and non-buying members of the public. Secondly, a survey of the general public would show the current proportion of organic buyers to non-buyers, which could be compared with the proportions found by previous surveys.

It was decided to single out organic buyers for a separate survey because it was felt that the number of organic buyers found within a cross-section of the general public would provide an insufficient sample size for statistical analysis of results.

3.4 Sample Selection and Data Collection Method

The sample selection and data collection method of each survey in this research will be described together. This is because for several surveys, the factors involved in the two steps were interdependent.

In any survey, where it is not possible to take a census, it is necessary to select a sample of respondents. Five factors are involved when selecting such a sample (Tull and Hawkins 1987). First, there should be a definition of the total population of respondents from which the sample is to be taken. Secondly, the means of representing the population must be specified: this is the sampling frame. Thirdly, there should be a specification of the basic unit containing the population elements to be sampled. Next, the method by which the sample units are to be chosen should be selected. Finally, the size of the sample should be determined.

Researchers are faced with a choice of three data collection methods for a survey: mail questionnaire, telephone interview and personal interview. The selection of the appropriate method or combination of methods depends on five factors: the complexity of the questionnaire, the amount of data which are required, the desired accuracy of response, the restrictions of time and the acceptable level of non-response.

With these steps and factors in mind, this section will describe the sample selection and data collection methods for each of the retailer and public surveys. In addition, a description will be provided of the steps taken to encourage a high response rate for each survey.

3.4.1 Wholefood Shop Survey Sampling and Data Collection Method

The population for the wholefood shop survey has been defined *as any small food shop specialising in a variety of (mainly dried) products not widely available in other stores, which has stocked organic foods for at least three years, and whose clientele show concern for food, health and particular dietary needs*. Therefore, in spite of the name of this survey, no distinction was made between "healthfood" and "wholefood". The sampling frame chosen for this population was the Soil Association's national list of small organic retailers (Soil Association 1990): it was felt that this source would provide the most comprehensive single list of wholefood shops stocking organic produce in the country (180 retailers). The sample unit for the population was the address of the retailer listed. Thus, two or more outlets operating under the same name but situated in different towns were treated as separate outlets. The method chosen to sample these units was a census, because the total population provided by the Soil Association list was

a relatively manageable number. The census involved contacting each listed retailer by phone to ensure retailers were eligible and willing to cooperate. After phoning, the sample size of wholefood shop retailers was 110. Of the 70 rejected retailers, 42 were not eligible either because they did not come into daily contact with customers or had not stocked organics for at least three years, and 28 were unwilling to cooperate for a variety of reasons. Data were collected from the wholefood shops with a mail questionnaire. A number of factors indicated this was the most appropriate method. First, the information required from wholefood shops was of medium complexity and quantity. Secondly, the size and geographical spread of the wholefood shop sample rendered the administration of personal and telephone interviewing too costly and time-consuming. Finally, it was felt that the main drawback of a mail questionnaire - the increased chance of receiving a low response rate - would be offset by the high level of respondent interest in the subject under discussion. A series of additional steps were taken to encourage a high return of questionnaires. First, every questionnaire was accompanied by a freepost reply envelope and a covering letter signed by the researcher. Secondly, during the initial telephone census of retailers, eligible respondents were introduced to the survey and asked for their names, which were then used to personalise the covering letters.

3.4.2 Farm Shop Survey Sampling and Data Collection Method

The population of the farm shop survey was defined as *any wholly- or partially-organic farm which has an on-site retail outlet in which at least some organic produce has been sold for at least the last three years*. Therefore, the population included growers who bought in organics from other sources to sell in their shops. It was difficult to identify a frame from which a sample representative of all organic farm shops could be drawn. However, it was decided that the Soil Association's list of registered organic farmers (1990) would provide the most comprehensive list (66 farm shops). The sample unit for the population was the address of each farm shop listed. The method chosen to sample these was to take a census of all the units, thus the sample size for the organic farm shop survey was 66.

The data collection method chosen for the farm shop survey was mail questionnaire. This method was appropriate in view of the medium complexity and quantity of information to be collected from the respondents, and was also suitable with regard to the size and geographical dispersion of the sample. It was felt that the farm shop respondents would have a good degree of interest in the subject discussed by the questionnaire and that this would compensate the risk of a high non-response rate. To help boost the response rate, freepost envelopes and covering letters personally signed by the researchers were posted with the questionnaires.

3.4.3 Supermarket Survey Sampling and Data Collection Method

The supermarket population has been defined as *any individual supermarket store belonging to the six known organic stocking chains (Asda, Gateway, Safeway, Sainsbury's, Tesco and Waitrose) which has stocked fresh organic produce for at least three years*. This meant that two limitations were set by the population definition: that the supermarket should stock fresh organics and that it should belong to one of the major supermarket chains. Fresh organics were stipulated because it was desired to discover the price and wastage levels of supermarkets' fresh organics in the light of press accusations that they are too high. Additionally, it was desired to sample only those supermarkets belonging to the six major chains because of the buying power these chains' have exerted on the market. In the absence of a Soil Association list of organic stocking supermarkets (use of the same sampling frame for each survey would have been desirable), it was decided to employ the national Yellow Pages directory as a sampling frame. It was felt that the Yellow Pages provided the most comprehensive list of supermarkets nationwide. The sampling unit for this frame was the address of each supermarket listed: thus, supermarkets belonging to the same chain but situated in different towns or districts were treated as separate outlets. Given time restrictions, it would have been impracticable to survey every organic stocking supermarket listed in every Yellow Pages area directory. Instead of a census therefore, the sampling method employed was clustering. From a map of Great Britain, six regions were delineated (the boundaries and rationale for these are described in Appendix 2). From these six regions, five Yellow Pages area directories were randomly chosen: from the "South West" region for example, the four area directories selected at random were Exeter, Bath, Bristol, Taunton and Plymouth and Cornwall. Individual supermarkets were then randomly selected. Because of the high risk that the randomly chosen supermarkets would not be eligible and cooperative respondents, each supermarket selected was telephoned. This process continued until the quota of supermarkets was met for each area. The quota was set to procure no more than 30 stores from any one of the six regions, leading to a total sample size for the supermarket survey of 150. This sample size ensured that similarly-sized samples were used for both the wholefood shop and supermarket surveys. The supermarket survey sample is displayed on Figure 3.1 (Appendix 2).

The data collection method chosen for the supermarket survey was mail questionnaire. As with the wholefood shop and farm shop surveys, it was felt that the medium complexity and quantity of information required from the respondents, together with the large size and geographical dispersion of the sample, favoured a postal survey method. In addition, it was felt that of all the retailer types to be surveyed, supermarkets would have the most professional approach to questionnaire responding and that this would offset the risk of a low response rate.

A number of steps were taken to improve the response rate and the value of the information to be collected. In order to increase the value of the information, an effort was made to enlist supermarket produce managers as the questionnaire respondents because of their ability to furnish an informed and independent view of customer behaviour and the performance of organic produce in their stores. In order to increase the accuracy of the information, respondents were only considered eligible if they came into daily contact with customers. The measures taken to boost the survey response rate resembled those employed for the wholefood shop and farm shop surveys. Thus, questionnaires were posted with freepost envelopes and covering letters personally signed by the researchers. In addition, the decision to "screen" randomly chosen respondents by telephone prior to surveying provided an ideal opportunity to introduce the respondent to the nature of the survey and ask for his or her name, which was subsequently added to the covering letter to make the communication more personal.

3.4.4 Greengrocer Sampling and Data Collection Method

The greengrocer survey population was defined as *any small-sized retailer with a wide customer base and a stock primarily comprised of fresh fruit and vegetables, who have stocked organics for at least three years, and who label their produce as organic on their shelves*. The stipulation that organic produce be labelled as such on the shelves was important because of questions relating to customer buying behaviour: clearly customers have to know the produce they are buying is organic before the retailer can speculate as to why they choose this produce. The sampling frame chosen for this survey, again in the absence of a Soil Association list of greengrocers stocking organic produce, was the Yellow Pages directory. It was believed that this source would provide the most comprehensive national list of all greengrocers. The sampling method chosen for this survey was dependent on two factors: first, the data collection method of telephone interview (which was deemed necessary to procure a high response rate from relatively uncommitted respondents) and secondly, the use to which the information provided by respondents was to be put. The time-consuming method of telephone interview necessitated a much smaller sample: thus, a census of all Yellow Pages-listed greengrocers was impracticable and it was decided that cluster analysis (as used in the supermarket survey) would be more appropriate. Secondly, the main hypothesis attached to greengrocers proposed that a "north/south" divide existed between greengrocers' levels of supply and prices. With this in mind, it was desirable to employ a sampling method which encapsulated greengrocers from "northern" and "southern" regions (a description of such regions is given in Appendix 2). Scotland and the South East were the regions selected at random, and two Yellow Pages directories were selected at random from each of these regions. Greengrocers were then chosen randomly. Clearly, there was a very high risk that the greengrocers listed in these directories would not be organic stockists. It was therefore necessary to telephone each one in

advance while the random selection was taking place. The objective of the sample size was to obtain the same number of eligible and cooperative contacts for greengrocers as had been obtained for other retailer types. However, the total number of greengrocers interviewed was 17: 12 of which were northern and the remainder being southern. This small sample size was caused by a number of problems which did not become apparent until the survey had begun. First, the proportion of greengrocers stocking organic produce was small (1 in 25 in the South East, 1 in 38 in Scotland). This meant that a considerable amount of time was taken to find one contact. Secondly, it was more difficult to find greengrocers willing to participate in the survey because even those who did stock organics were not particularly committed to the produce. A third difficulty was finding eligible respondents: many greengrocers who claimed to stock organics were found not to advertise the produce as such in their stores, thereby excluding the customers' ability to choose between organic and conventional. This rendered the greengrocer ineligible because questions on customer buying and non-buying behaviour would be inappropriate. The most serious problem however, surrounded the nature of the definition given to 'greengrocer'. While this research draws a careful distinction between outlets classed as greengrocers and those classed as wholefood shops, it became apparent that such a distinction was not observed by the Yellow Pages. Therefore, retailers classified as 'greengrocers' by the Yellow Pages may in reality have been more akin to wholefood shops, and information collected would then be attributed to the wrong retailer type. This problem must be borne in mind when interpreting the results pertaining to the greengrocer survey.

3.4.5 Organic Buyer Survey Sampling and Data Collection Method

It had been desired to survey as wide an organic buying population as possible, which implied collecting information from organic buying customers of different retailer groups. However, the decision to use personal interviews to collect data (see below), did require that the sample population be limited geographically to Edinburgh city. The original population definition was therefore *any customer of an organic stocking supermarket, wholefood shop or greengrocer in Edinburgh city, who claimed to at least occasionally buy organics*. Yet a lack of cooperation from local supermarkets and greengrocers meant that the frame from which the population was to be sampled was limited to the customers of three Edinburgh wholefood shops. The sampling method included spending one period of interviewing within each shop, with a view to conducting 10 interviews. During interview periods, customers were approached by the interviewer and asked initially if they ever bought any organic foods. If the response was positive, the customer was then introduced to the nature of the survey and invited to participate. The total number of completed questionnaires procured by this method was 31. This total was supplemented by 5 questionnaires posted directly by respondents unwilling to be interviewed in-store. This brought the total sample size for the organic buyer survey to 36.

3.4.6 General Public Survey Sampling and Data Collection

The definition of the general public survey population was determined in part by the chosen data collection method of telephone interviewing (see below). This method, being more costly and time-consuming to administer than a postal survey, necessitated a reasonably small and geographically restricted population. The population definition was therefore: *any resident of Lothian region over the age of 18*. It was important to sample only residents of the region because it was desired to procure a sample representative of the tastes and values of the resident population. Further, to be eligible, respondents should have been resident in the area for at least 12 months, which ensured that purchasing patterns had become established. Eighteen was used as the lower limit to age because it was felt that most people at this age gain some independent income. The sampling frame chosen for the general public survey was the telephone directory for the Edinburgh and the Lothians. It was felt that this frame would provide the most comprehensive and randomly-sorted list of the residents of the Edinburgh area. The sampling unit was the telephone number of private individuals. Thus, business numbers were excluded and two or more people listed under the same telephone number were treated as one unit. Clearly, it would have been impossible to undertake a census of all the units, thus clustering was adopted as the sampling method. This meant that it was necessary to decide in advance the approximate sample size to be surveyed. With experience, and given time and resource restrictions, it was felt that a sample size of at least 200 was required. Therefore, nine pages of the directory were selected at random, from which every fifth number was drawn to a total of 30 numbers. Thus, the sample comprised of nine clusters of 30 telephone numbers. The total sample size was 270 numbers.

The data collection method chosen for the general public survey was telephone interviewing. It has already been indicated that this method restricted the size and geographical extent of the sample, however it was believed that mail questionnaire would procure a very poor response rate while personal interview would have restricted the size of the sample even more. In addition, telephone interviewing had the advantage of procuring relatively high value information immediately from the respondent. To ensure that the completed interviews were from as representative a sample as possible, several steps were taken. First, a maximum of 15 numbers were called during the day to avoid biasing the sample towards housewives and OAPs, while in the evening, the remaining numbers out of 30 were called together with any non-responses recorded earlier in the day. While it was necessary to reject non-responses at some stage because of the time-wasting involved, each one was called back at least three times before being rejected to be consistent with standard market research practice (Kinneer and Taylor 1979). Furthermore, a number of steps were taken to improve the response rate and the value of the information provided by respondents. First, on answering the phone, respondents were introduced to the survey under the subject of "food health and safety": a subject of general

interest such as this was desirable to discourage initial non-response. Any mention of organics was avoided at this stage because it was believed this would bias the sample towards organic buyers. In addition, "Edinburgh University" was mentioned during the introduction as the source of the research to lend weight to the survey and to add a local element.

3.5 Selection of the Analytical Approach

The design of a questionnaire and the statistical analysis performed on the information provided by the questionnaire are closely related steps in the design of survey research. While the following section describes in detail the statistical tests undertaken on the data provided by the retailer and public surveys, the subject is introduced here because it was one determinant of the design of the questionnaires. This section will describe the steps involved in questionnaire design and show how each was followed for the retailer and public surveys. Examples of the original questionnaires used in the surveys are given in Appendix 1.

Six factors need to be borne in mind in the design of a questionnaire (Kinnear and Taylor 1979):

- 1 The information to be generated by the questionnaire.
- 2 The content of the questions.
- 3 The phrasing of the questions.
- 4 The response format.
- 5 The sequence of the questions.
- 6 The layout of the questionnaire.

3.5.1 Questionnaire Design of Retailer Surveys

Two types of statistical analysis were undertaken on each group of survey data. The first compared the responses of different retailer groups to the same question: for example, to compare the optimism indicated by supermarket respondents with that of wholefood shop respondents. The second measured the degree of association between responses to different questions by one retailer group: for example to discover if an association existed between supermarkets' estimation of the importance of price as a non-buying motivation and the level of organic premium in their store. In order to make such comparisons, the format and layout of all retailer questionnaires was kept as similar as possible. For this reason, all retailer questionnaires are discussed together under the six stages of questionnaire design.

Information to be generated: In the wholefood shop, farm shop, supermarket and greengrocer surveys, it has already been indicated that similar kinds of information were wanted from the different retailer groups. This information related to: the size and consistency of the retailers' organic range; their estimations of their customers' organic buying or non-buying motivations; the organic price, supply and wastage levels experienced; and the retailers' views of the current and future state of the organic market.

Question Content and Phrasing: In order to procure accurate information, the question must be clear and comprehensible to the respondent. In the retailer surveys, questions were kept as straightforward and unambiguous as possible. For example, when retailers were asked if they felt that the organic market was a niche market, a brief description was given of the term "niche market" to clarify what was meant. It was felt that greengrocer respondents would be particularly vulnerable to misinterpretation of the questions because of their lack of interest in the subject, however as their data were collected by telephone, misunderstandings were clarified immediately.

The Response Format: It was recognised that respondents of all retailer groups were busy professionals, with little time to consider complicated response formats. An abundance of open-ended questions posed a particularly high non-response risk in postal surveys, because of the need to articulate an idea concisely in writing. Thus, the majority of questions in the retailer surveys had a multi-choice format. Attitude scales, where the respondent was asked to indicate a degree of agreement or disagreement with a statement by circling a number, were also included to add variation to the response formats. It was believed that both methods would improve the response rates of the surveys.

Question Sequence and Questionnaire Layout: Question sequence and questionnaire layout were also important to the response rate. By asking questions pertaining to different topics, it was believed that the respondent's interest would be held and that this would lead to the completion of the questionnaire. The physical appearance of the questionnaire was vital to respondents of the postal surveys. A professional questionnaire appearance lent weight to the survey and communicated importance to the respondent. This encouraged respondents to feel that their answers were important and so encouraged a higher response rate.

3.5.2 Questionnaire Design of Public Surveys

It has been noted that the organic buyer survey sample was restricted to customers of wholefood shops in Edinburgh city. It was felt that such a sample procured responses from only a particular section of the organic buying population, which in analysis, could not be representative of all organic buyers. It was decided therefore, not to undertake any comparison between organic buyer survey responses and general public survey responses. However, it was decided to undertake tests to measure the degree of association between organic buyer survey responses to different questions: for example to discover whether a relation existed between an organic buyer's claimed interest in green issues and whether he or she undertook day to day activities as a result of that interest. Similarly, degrees of association between general public responses to different questions were tested: for example, to discover whether a relation existed between the respondent's interest in ethical issues and whether he or she had ever purchased organics. Samples of both organic buyer and general public questionnaires are given in Appendix 1. The stages of questionnaire design for the organic buyer and general public surveys are described below.

Information to be Generated: The information requirements for the organic buyer and general public surveys were very similar. An objective was to determine the importance respondents attached to green issues; whether or not they carried out day to day "green" activities; whether they avoided foods for ethical or health reasons; their source and length of awareness of the term organic; their gender, age and occupation; and (if the respondent was an organic buyer), the usual place and rate of organic purchase.

Question Content and Phrasing: It was important in the general public survey to avoid using difficult terminology or jargon. Such phrasing can cause information collected to be inaccurate because of the respondents' desire to answer a question even if it is not properly understood (Kinnear and Taylor 1979). Thus, the question relating to the importance of green issues was phrased as: *How important to you are so-called "green" issues?* It was felt that this phrasing would encourage people to admit more readily to not understanding the term. The organic buyer survey was less of a problem in this respect because it was felt that respondents would have a fuller understanding of what was meant by terms such as "green" and "ethical".

The Response Format: The general public survey employed a telephone interview method to collect data. With this method, it was important to keep the response format simple to encourage completion of the whole questionnaire. Thus, open-ended questions were kept to a minimum, and for multiple choice answers, the number of categories was limited to three.

Question Sequence and Layout: The fact that the general public survey was undertaken as a telephone interview, and that the organic buyer survey was carried out by personal interview, the layout of the questionnaire had no influence in improving the response rate of either survey. However, the layout was kept much the same as that of the retailer survey questionnaires because it was an easy format for the interviewer to follow: this helped to ensure that accurate data were recorded. In addition, the sequence of the questions was important to the general public survey, where it was decided to begin interviews with questions relating to the general subjects of green, ethical and health issues. The questions on organic awareness and purchase were not included at the beginning of the questionnaire in order to avoid biasing the sample towards organic buyers or people with an interest in organics.

3.6 Testing of Questionnaires

A number of measures have already been mentioned which were undertaken to improve the response rate for each retailer survey. An additional measure for the supermarket, farm shop and greengrocer surveys was to test the questionnaire for length, relevance and complexity prior to execution of the postal survey. This was done by personally interviewing at least three retailers of each type in Edinburgh city centre, resulting in the omission and rephrasing of some questions.

Both the organic buyer and general public questionnaires were tested for length and content by friends and colleagues, resulting in the rephrasing and omission of some questions. It is believed that this testing was beneficial because for both the organic buyer and general public surveys, all questionnaires were completed after initial agreement from the respondent to be interviewed.

3.7 Research Methodology: Analysis

The previous section has shown how questionnaires were designed with respect to analysis of collected data. This section describes the steps involved in processing and analysing the data.

3.7.1 Data Processing

All data was analysed on the Minitab statistical package. This programme had the advantage of being very interactive and able to undertake series of repetitive commands easily: the latter attribute was particularly useful because similar statistical tests were employed repeatedly on data from different surveys. While questionnaires were being returned, preparations were made for the processing of data for use on Minitab. First, coding dictionaries were compiled for the questionnaires of each retailer and public survey. This involved allocating every question a variable label, in addition to allocating a value label to the possible responses to every question. For example, the question to retailers: "*What are the main reasons why people do not buy organics in your store?*" was given the variable label "*Non-buying reasons*", while the possible responses to this question were given the value labels "*1. High price*", "*2. Appearance*", "*3. Lack of knowledge*", "*4. Other*". The discipline of coding and labelling led to a quicker understanding of how to handle the data.

In most cases, as with the example above, the choice of possible responses was specified to respondents on the questionnaire. In such cases, the main problem was to decide whether the number of responses falling under the category "*Other*" were sufficient in quantity to warrant creation of a further value label. For open-ended questions, (eg to supermarkets: "*What are the problems involved in selling two types of produce together?*") value labels were created after the majority of questionnaires were returned. The decision to create additional value labels involved a compromise between the desire to collect as much detailed information as possible and the recognition that for statistical analysis, the number of response categories needs to be limited. After data collection, all questionnaires were coded according to the specifications of the coding dictionaries. Illegible or blank responses were given the non-response code "9". Only one questionnaire was rejected, on the grounds that less than half the questions had been answered.

3.7.2 Statistical Analysis

Two main types of analysis were required.

- 1 Comparison of one retailer's response to a question with another response (eg comparison between supermarkets' and wholefood shops' ranges of fresh produce selection)
- 2 Cross tabulations or comparisons between a retailer's response to two questions (eg the regional location of supermarket respondents and their level of optimism surrounding the future of the organic market).

The type of data produced by the surveys was best suited to non-parametric statistical tests. Of these tests, the chi-squared statistic was the most useful because of its power in testing the association between two variables which are not scaled ordinally, from data sets which vary considerably in quantity. A description of the chi-squared test is given below.

Chi-squared is used to test whether a significant difference exists between an observed number of objects or responses falling within a set of categories and the expected number of categories based on the null hypothesis "all things were equal" (Siegel and Castellan 1988). In the data set below, the observed values (in bold) are the actual number of responses of wholefood shops and supermarkets to the question "*What percentage of fresh organic produce you stock is wastage?*". The expected number of categories, shown underneath the observed categories, give the distribution of supermarket and wholefood shop responses "had all things been equal", that is, if the responses had been distributed completely by chance.

Table 3.1 *Wholefood shop and supermarket levels of wastage for fresh organic produce*

<u>Wastage Level</u>	<u>Supermarket</u>	<u>Wholefood Shop</u>	<u>Total</u>
26% or more	45 31.48	16 29.52	61
25% or less	35 48.52	59 45.48	94
Total	80	75	155

It can be seen from Table 3.1 that the number of supermarkets incurring 26% or more wastage for fresh organics (45) was considerably higher than the expected number had the responses been distributed by chance (31.48). To test whether the disparity between all the observed and expected frequencies in the data set is significant, a chi-squared statistic is calculated by squaring the difference between the observed and the expected responses for each category, then dividing this by the expected response for each category. These values are then added together, to obtain a chi-squared statistic of 19.774 for this example. With reference to a table of critical values of chi-squared distribution, it is found that the value is significant beyond the .001 level with one degree of freedom. Therefore, the probability that the chi-squared value could have been obtained from a chance distribution is less than 1%. The disparity between wholefood shop and supermarket responses is assumed to be significant with this value of chi-squared at this level of significance.

The level at which the chi-squared test may be deemed significant must be decided prior to analysis, and throughout the results in the following chapter, chi-squared values are deemed significant beyond the probability level .05. This is the level used conventionally by many practitioners of social science research. The degrees of freedom vary according to the number of categories in the data set: the fewer categories there are, the fewer the degrees of freedom.

When undertaking chi-square tests, the choice of categories and combinations of categories was arbitrary, and these decisions are discussed in Chapter 4 alongside descriptions of the actual tests. In each case, the objective of combining categories was to achieve the smallest number of categories (this ensured the validity of the test) while retaining the most detail from the original data.

Chapter 4 gives the results of both retailer and public surveys. It is split into three parts: the first deals with the results of the wholefood shop, supermarket, greengrocer and farm shop survey, the second describes the results of the general public survey, and the final part gives details of the results of the organic buyer survey.

SECTION II

4 Results

Retailer Surveys

The following section gives the results from the wholefood shop, supermarket, farm shop and greengrocer surveys. As the questionnaires for each survey were very similar and tests of association between surveys were undertaken, the results for all retailers are presented question by question. This chapter begins with a brief discussion of the retailer surveys' response rates.

4.0 Response Rates for Each Retailer Survey

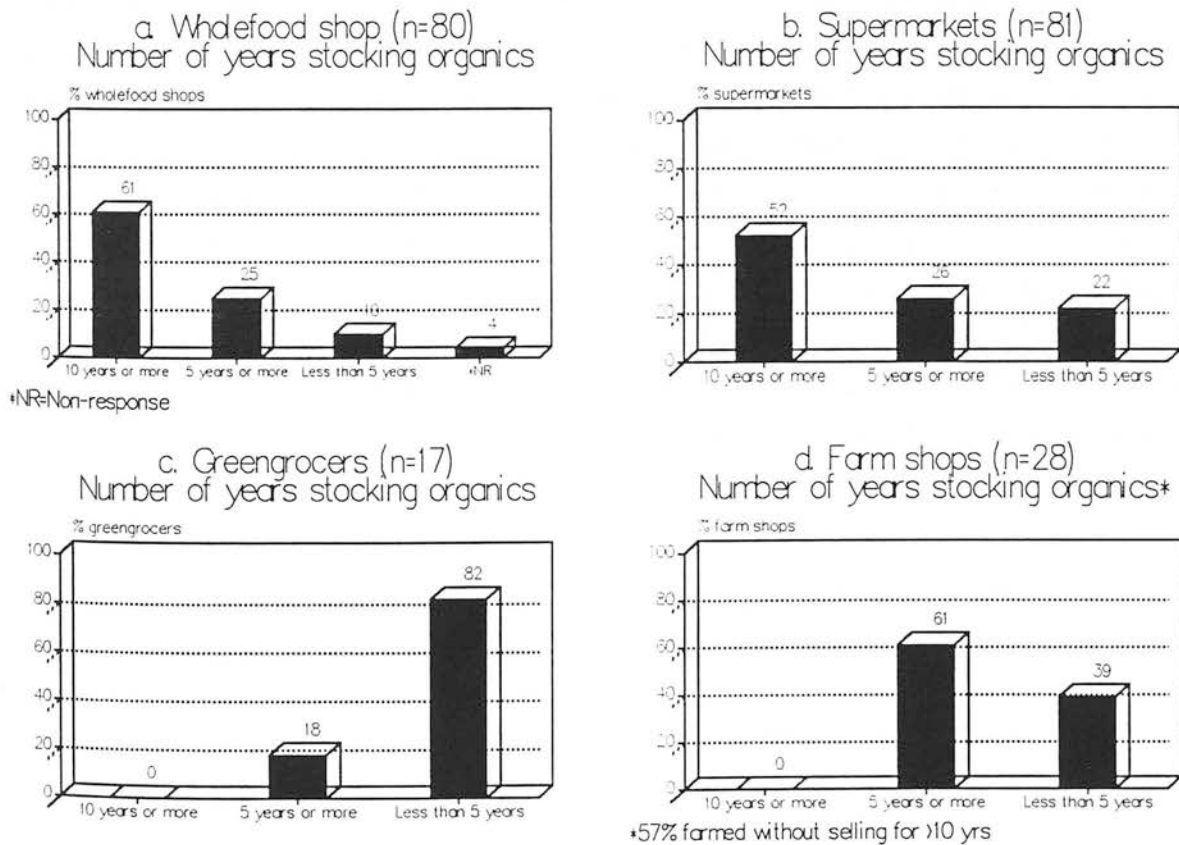
There was considerable variation in the response rates for the different retailer surveys. The highest number of completed questionnaires was received from the wholefood shop survey (67%), reflecting the respondents' commitment to the subject of organics. The high proportion of wholefood shop respondents who made additional comments on their questionnaires was a further indication of their interest. The supermarket survey provided the next highest response rate (53%); over 70% of supermarket respondents were 'produce managers' who not only showed themselves to be more willing to complete the questionnaire, but were also more informed about customer demand in the fresh produce department. As a result, the information they provided was of very high value. The farm shop survey generated a 42% response rate. The main difficulty incurred here was the number of respondents not possessing a telephone: this led to questionnaires being sent to farmers without having made prior contact, which probably reduced the response rate. The greengrocer survey, which relied upon the telephone interview method rather than a postal survey for data collection, incurred the greatest difficulties. It became apparent that there was no precise distinction made between greengrocers and wholefood shops in the Yellow Pages: that is, an outlet classed as a "greengrocer" in the Yellow Pages may in reality have been closer to the current research's definition of "wholefood shop". As the research hypotheses are grounded in the basic differences between organic-selling retailers, conclusions drawn from information provided by the greengrocer survey are subject to the vagaries of the Yellow Pages classification system. All the retailer survey response rates are displayed in full in Appendix 3.

In the farm shop and wholefood shop postal surveys, some regions provided a higher number of responses than others. While the surveys were intended to present a national picture of retailers' attitudes towards and operations within the organic market, results for these retailer types may be more representative of some regions as opposed to others. This limitation must be born in mind when interpreting the conclusions which follow.

4.1 Number of Years in which Organics have been Stocked

All retailer respondents were asked to indicate for how many years they had stocked organic produce (Figure 4.1). The categories of response were chosen prior to the survey according to theories surrounding the "boom" period for organics. It was proposed that retailers who began stocking organics less than 5 years previous followed in the wake of the boom period, while a stockist of more than 10 years had operated in anticipation of it. It was also proposed that longer-term organic retailers were more likely to demonstrate commitment to organics than were more recent stockists, with implications for the range and consistency of produce stocked.

Figure 4.1 Number of years in which organics have been stocked by retailer type



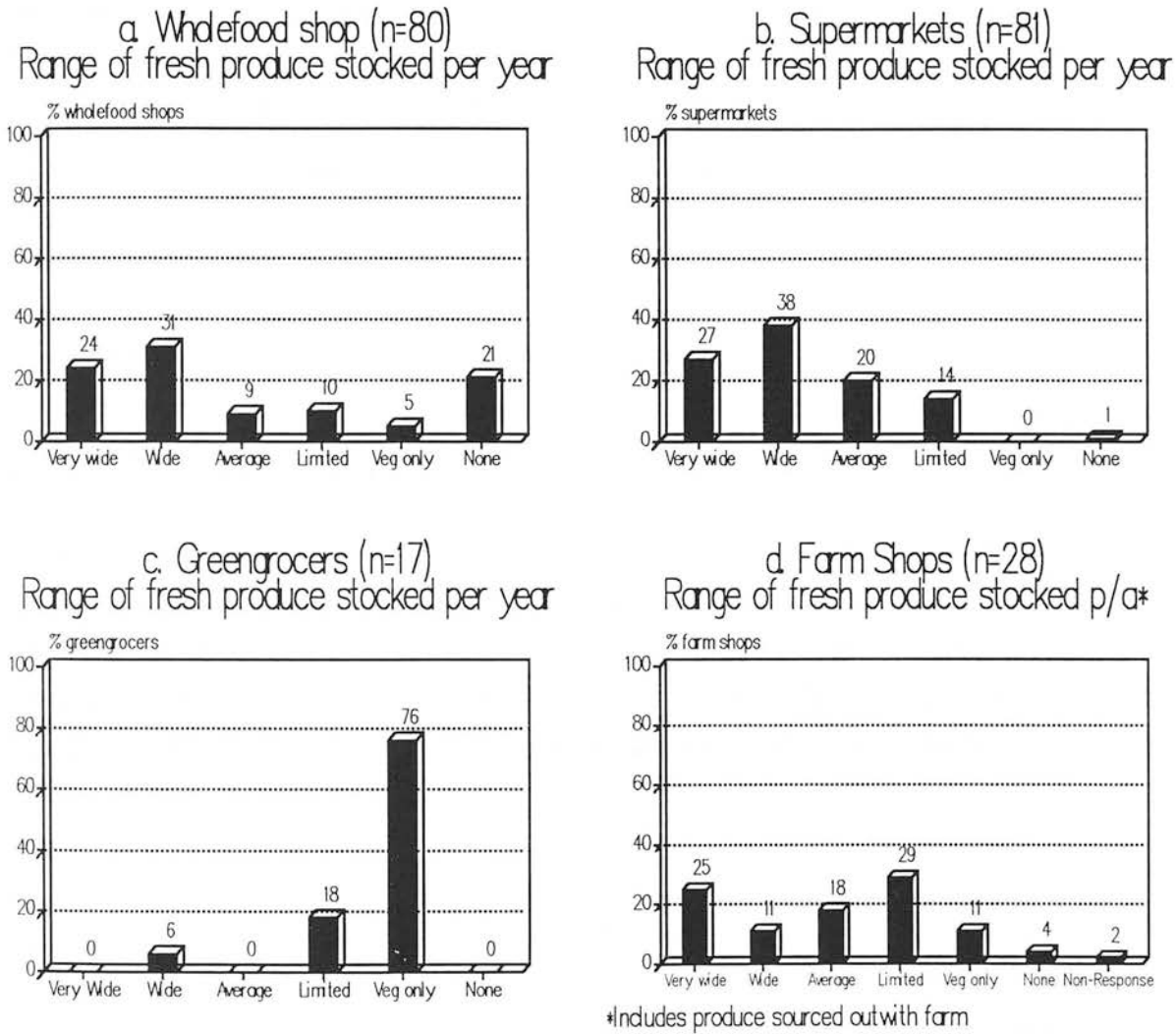
Comparison between these diagrams shows that wholefood shop respondents provided the greatest proportion of "long term" organic-stocking retailers (61% had stocked organics for 10 years or more), while the greatest proportion of "recent" organic stockists was found among greengrocers: 82% of these had stocked organics for less than 5 years. This result is consistent with the theory that greengrocers harbour a casual attitude towards organics. An additional point is that while the farm shop survey (Figure 4.1d) recorded no respondents selling organics on their premises for 10 years or more, 57% had farmed organically for at least 10 years, selling their produce to another retailer or processor.

4.2 The Range of Fresh Organic Produce Stocked by Retailers

Range can be interpreted as an indication of commitment to organics because a retailer may expend much effort in ensuring a wide range of fresh produce to keep customers happy. From a list, retailers were invited to indicate the items of fresh organic produce they stocked in an average year. This list included a variety of items from locally grown vegetables (potatoes, carrots, swedes, broccoli) to imported citrus fruits (oranges, lemons, grapefruit). After data collection, responses were categorised ordinally from "*very wide range*" (where all items on the list were stocked) to "*no fruit and vegetables*" (where the retailer stocked no fresh produce). Figure 4.2 shows the respondents of each retailer type distributed according to the extent of their range of fresh organic produce. Comparison between these figures shows that supermarkets were the group with the highest proportion of outlets with "*very wide*" or "*wide*" ranges, as 65% of respondents fell into one of these categories (Figure 4.2b). The poorest ranges were generally stocked by greengrocers (Figure 4.2c), 76% of whom sold vegetables only. In addition, many wholefood shops stocked a limited range, and indeed nearly a quarter claimed to stock no organic fruit and vegetables at all (Figure 4.2a). However, wholefood shops generally had a much larger selection of other organic foods (see **Other Organic Produce Selection**).



Figure 4.2 The range of fresh organic produce stocked by retailers



4.2.1 Supermarket and Wholefood Shop Organic Ranges Compared

While Figures 4.2a and 4.2b show that variations existed between the ranges of organic produce in wholefood shops and supermarkets, it was of interest to know if these differences were significant. To test this, supermarket and wholefood shop responses to organic range were combined into two categories: those who had indicated a "very wide" to "average" range were included in the category "Extensive", while those who had indicated a "limited" range or poorer were included in the category "Limited" (Table 4.1). It can be seen that a greater proportion of supermarkets fell into the Extensive category than did wholefood shop respondents. A chi-squared test was undertaken to discover whether the difference between proportions was significant.

Table 4.1 *Distribution of wholefood shops and supermarkets according to extent of range of fresh organic produce stocked in an average year*

Extent of Range	Supermarkets	Wholefood Shop	Total
Extensive	69	51	119
Poor	12	29	41
Total	81	80	160

The chi-squared value from this data set was 9.743 with one degree of freedom. The critical value of chi-squared, with $P > .01$, is 9.21. As the observed value exceeds the critical value at the .01 level, it may be assumed that a significant difference existed between wholefood shop and supermarket responses. It may be concluded therefore that a significantly greater proportion of supermarkets in this survey stocked an extensive range of organic produce compared to wholefood shops.

4.2.2 *Organic Range and Regional Situation of Retailers*

Regional variations appear to exist in the extent of organic agriculture undertaken in Great Britain (Murphy 1992). In Chapter 1 it was proposed that such variations translate into differences in the regional availability of organic produce. To discover whether the extent of a retailer's organic range varied according to the regional situation of the retailer, the different organic ranges of wholefood shops and supermarkets were set against their regional locations (Table 4.2). Regional categories were created prior to data collection and were based on the level of organic agriculture undertaken in areas of Great Britain. The category "*Northern*", which includes Scotland, the North and Wales, denotes areas of relatively limited organic agriculture, while the category "*Southern*" (which includes the Midlands, South East and South West of England) denotes an area of relatively extensive organic agriculture.

Table 4.2 *The distribution of wholefood shops and supermarkets according to their regional situation and extent of organic produce*

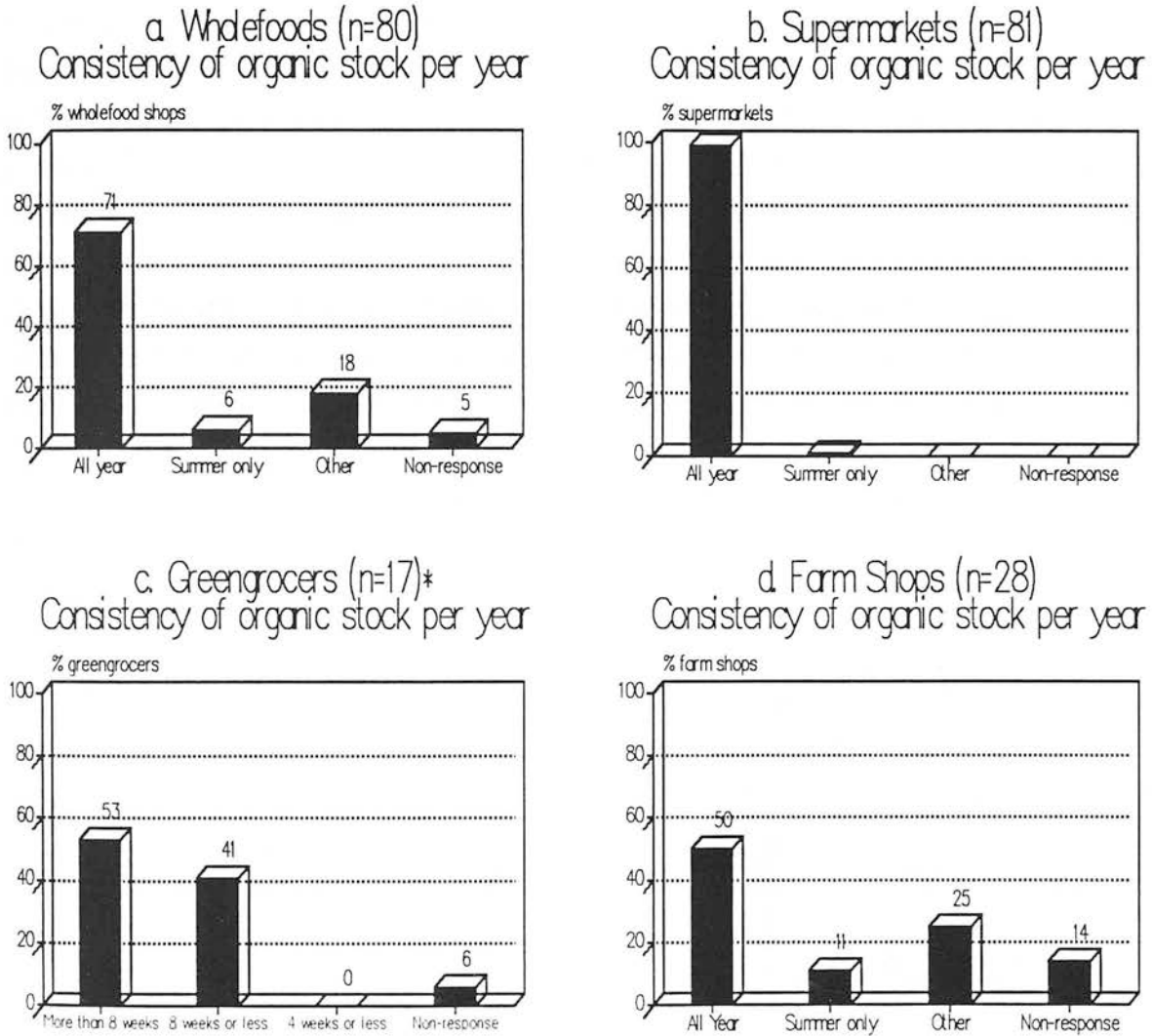
Extent	<u>Wholefood Shops</u>			<u>Supermarkets</u>		
	"Northern"	"Southern"	Total	"Northern"	"Southern"	Total
Extensive	22	29	51	34	34	68
Poor	13	16	29	7	5	12
Total	35	45	80	41	39	80

It can be seen from this table that there was very little difference between the extent of organic ranges of "Northern" and "Southern" retailers. Given this lack of variation, it was not surprising that a chi-squared test undertaken on these data distributions of wholefood shops and supermarkets did not produce values significant beyond the .05 level (values were .021 and .336 respectively). Thus, it cannot be concluded that the regional variations in organic ranges of wholefood shops and supermarkets were significant.

4.3 Stocking of Organics in a Year

Like width of range, consistency of organic stock throughout the year can be an indication of a retailer's commitment to a product. Here, retailers were asked to indicate for how long in the year they stocked organic produce (Figure 4.3). The response categories, which were created prior to data collection, made the distinction between summer-only and perennial stocking to distinguish retailers who only buy in organics when easily available from those who expend some effort in ensuring the produce is stocked during times of greater scarcity. It can be seen that response categories for the greengrocer survey were different from those of other retailers (Figure 4.3c). Original choices of response were replaced by smaller time-scale categories for greengrocers as a result of pre-survey testing: greengrocers were found to stock organics on a more inconsistent basis compared to other retailers.

Figure 4.3 The length of time in an average year that organics are stocked by different retailer types



Comparison between these Figures shows that the most consistent organic stockists were supermarkets, with 99% claiming to have produce on their shelves all year round (Figure 4.3b). The wholefood shop survey yielded the second largest proportion of year-round stockists (71%), while half of farm shops had organic produce all year (Figure 4.3d). The ability of greengrocers to stock organics consistently was perhaps underestimated, as 53% of respondents claimed to have the produce for more than eight weeks. Moreover, it should be recognised that although the question of consistency of organic stock was intended to pertain to fresh produce only, some respondents may have answered in relation to other types of organic produce such as dried, dairy or bakery products. This phenomenon would certainly explain the high proportion of wholefood shops who claimed to stock organics all year round.

4.4 Other Organic Produce Selection

The focus of this research has been on the demand for organic fruit and vegetables, as this section of the market currently records the highest level of sales (Mintel 1991). Yet it was important to investigate the extent to which retailers have taken up other organic lines to give an indication of the popularity of organic foods beyond the traditional association with fresh produce. Therefore, retailers were asked to indicate from a list the non-fresh foodstuffs they stocked in organic form (Figure 4.4). Categories of response included "dried goods" (rice, pasta, cereals), "dairy produce" (milk, yoghurt, cheeses), "bakery goods" and "meat". These items are among the best-selling organic products according to results of previous market studies (Mintel 1991, Tate 1991). Greengrocers were not asked this question because pre-survey testing of the questionnaire indicated that this group was extremely unlikely to stock other organic produce.

Figure 4.4 The types of non-fresh organic foods stocked by supermarkets, wholefood shops and farm shops

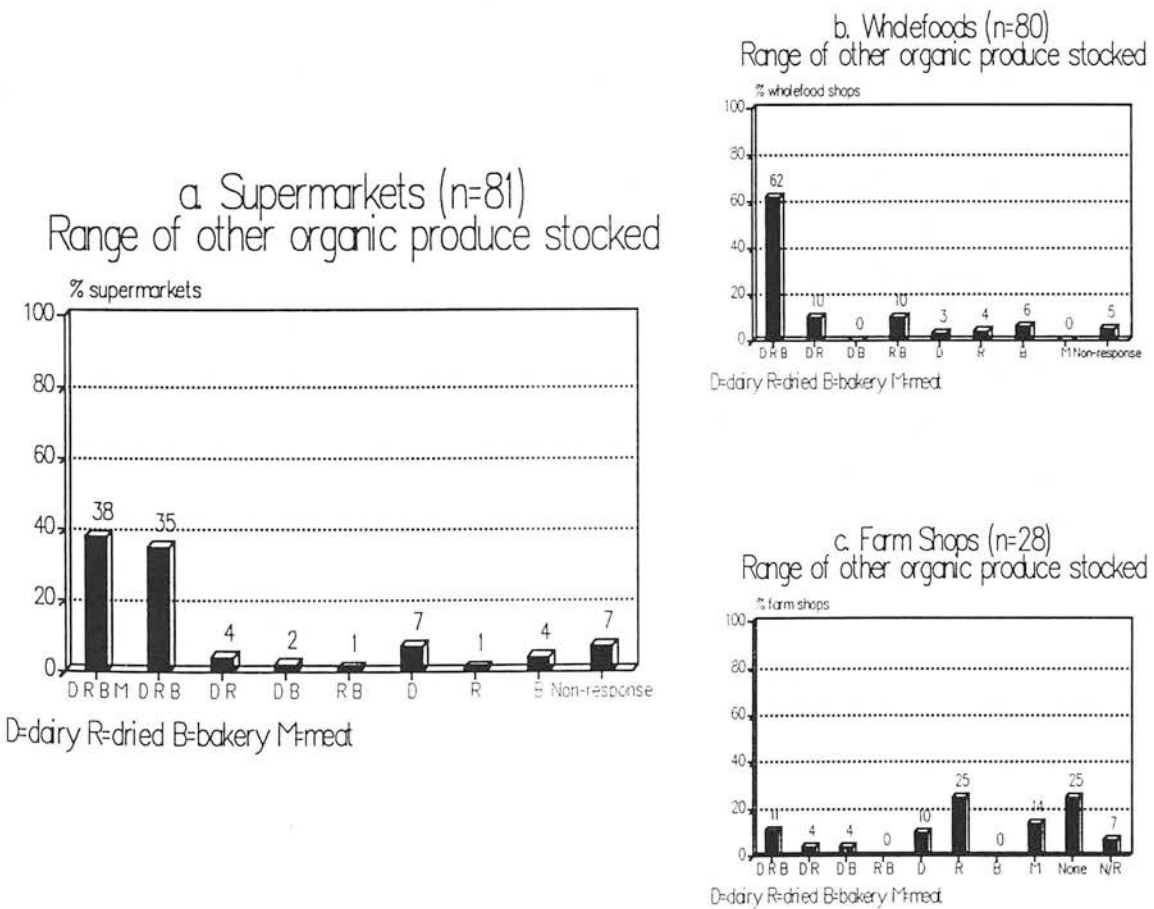
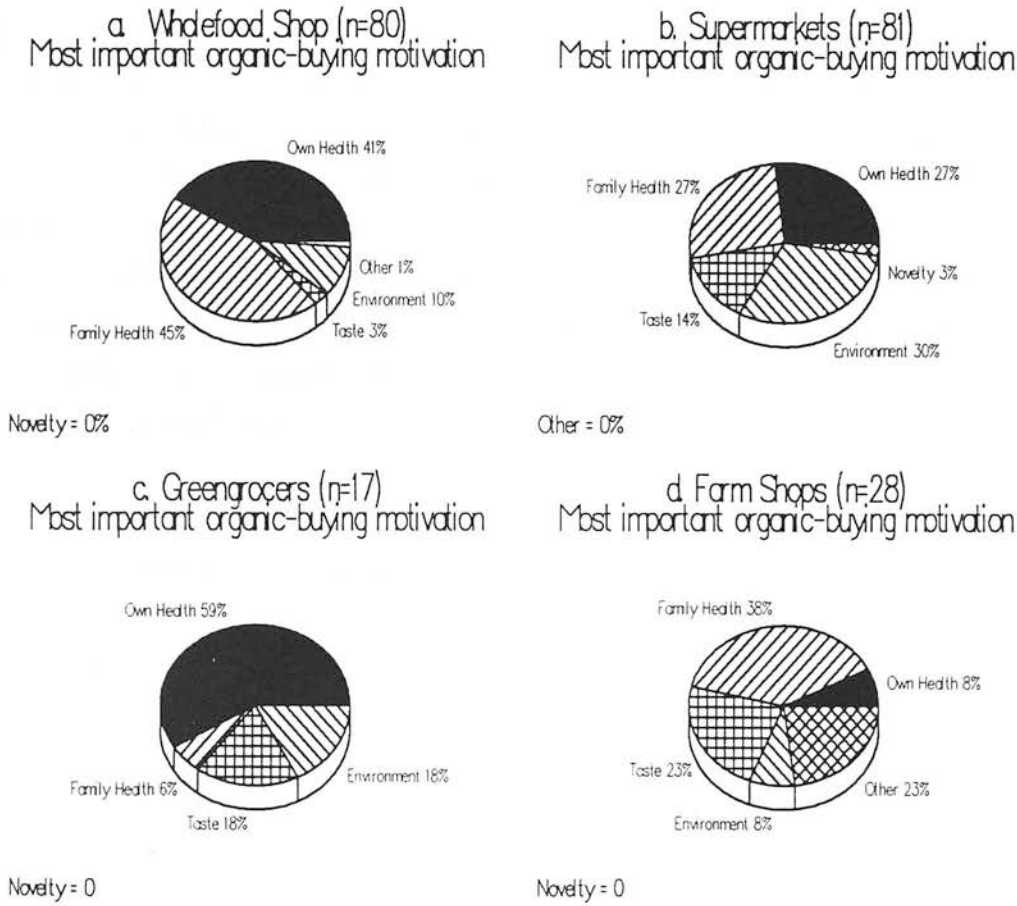


Figure 4.4 shows that the extent to which non-fresh organics are stocked varies considerably according to retailer type. Wholefood shops showed a substantial penetration of organic dried, dairy and bakery foods, with 62% of respondents claiming to stock all three types (Figure 4.4b). This result is perhaps not surprising given the traditional background wholefood shops have in a wide variety of health foods. However, an even greater proportion of supermarkets (73%) stocked all three goods in organic form (Figure 4.4a), which reflects the recent interest shown in extending organic lines by this retailer sector. By contrast, only a minority of farm shops stocked a combination of different types of organic foods, and the availability of bakery products was particularly low (Figure 4.4c). A minority of farm shops (14%) did stock organic meat, but the greatest proportion of organic meat retailers was found among supermarkets, of whom nearly a third claimed to have taken up this challenge. No wholefood shops claimed to trade in organic meat; indeed many emphasised their vegetarian ethos in response to this question.

4.5 The Importance of Organic Buying Motivations

A crucial aim of this research was to discover the prime reasons which motivate people to buy organics. As 99% of all retailers surveyed here came into daily contact with their customers, questions on customer buying behaviour could yield valuable information. All retailers were asked to rate the importance of five different organic buying motivations in their customers' decision to buy organic: "*concern for own health*", "*concern for family health*", "*concern for the environment*", "*taste*" and "*novelty*". The first four motivations were selected for their prominence in previous studies of buying behaviour (McGregor *et al* 1990, Boyle *et al* 1991). "*Novelty*" was added as a result of the proposal in Chapter 1 that it is an important, yet overlooked buying motivation. For each motivation, the respondent indicated with a number from 1 to 5 the importance of the motivation in relation to the others listed. It was believed that this multiple choice format would reduce the occurrence of non-response error and would increase the likelihood of respondents rating less important factors which they might not have otherwise considered. This was particularly important for the category "*novelty*". Figures 4.5a to 4.5d show the results of each retailer survey by charting, for each buying motivation category, the percentage of respondents who indicated that it was the **most** important in their customers' decision to buy organic.

Figure 4.5 Retailers' ratings of the most important reason motivating their customers to buy organic produce



The above diagrams show that the greatest proportion of respondents in each retailer type believed "concern for health" (either own health or family health) to be the most important organic-buying motivation for their customers. This unanimity was tested by the Kendall coefficient of concordance (Appendix 4). This non-parametric test measures the level of consensus reached by different parties when rating a number of ordinal variables. The result showed a significant level of consensus between retailers (with $P > .001$) for the importance of health as an organic-buying motivation. However, for the remaining motivation categories, there was considerable disparity between the views of different retailers. For example, 30% of supermarket respondents rated "environmental concern" to be the most important motivation (Figure 4.5b), compared with only 10% of wholefood shop respondents (Figure 4.5a). A second difference of opinion was revealed in the rating of "novelty": 3% of supermarkets rated this as the most important motivation (Figure 4.5b), yet it was not rated as most important by any other retailer type. Both results indicate differences between supermarket and wholefood shop customer buying motivations, and chi-squared analysis was undertaken to test whether the differences were significant. The following two sections describe this analysis.

4.5.1 *The Importance of Novelty as a Buying Motivation*

The preceding diagrams have indicated that a greater proportion of supermarkets rated novelty as a more important customer buying motivation than did wholefood shops. To test this disparity, wholefood shop and supermarket ratings of the importance of novelty (numbers from 1 "most important" to 5 "least important") were combined into two categories for analysis: "Important" and "Unimportant". Responses 1, 2 and 3 fell into the former category, and responses 4 and 5 into the latter. The responses were split between 3 and 4 because it was believed that if a respondent rated novelty as the third most important buying motivation behind more obvious and "acceptable" motivations such as health or environmental concern, it was sufficiently high a rating to be considered "Important". Table 4.3 shows the distribution of supermarket and wholefood shop responses according to this categorisation:

Table 4.3 *The distribution of supermarket and wholefood shop responses to the importance of novelty as an organic buying motivation, combining responses 1, 2 and 3 into the category "Important" and 4 and 5 into the category "Unimportant"*

Novelty Importance	Supermarket	Wholefood Shop	Total
Important	9	1	10
Unimportant	71	79	150
Total	80	80	160

Chi-squared = 6.827 with one degree of freedom, significant with $P > .01$ ¹

Table 4.3 shows that a greater proportion of supermarkets believed novelty to be an important organic buying motivation than did wholefood shops. The significant value of chi-squared from this data set indicates that the distribution of responses was not attributable to chance with $P > .01$. It may be assumed therefore, that a significantly greater proportion of supermarkets than wholefood shops believed novelty to be an important organic buying motivation.

¹ To avoid repetition, this method of describing chi-squared will be used throughout the remainder of this chapter

4.5.2 *The Importance of Environmental Concern as a Buying Motivation*

While 30% of supermarkets rated environmental concern as the most important buying motivation (Figure 4.5b), only 10% of wholefood shops rated this motivation so highly (Figure 4.5a). The result suggests that many wholefood shops rated environmental concern as a relatively unimportant motivation. To measure the difference between supermarket and wholefood shop ratings of environmental concern, chi-squared analysis was undertaken, combining the retailers' original responses 1 and 2 into the category "*Very important*", 3 into the category "*Quite important*" and 4 and 5 into an "*Unimportant*" category. It was possible to undertake a chi-squared test on three categories of data here because the number of responses falling within each category was high. Table 4.4 displays the combined categories.

Table 4.4 *The distribution of supermarkets and wholefood shops according to their rating of the importance of environmental concern as a buying motivation*

Environment Rating	Supermarket	Wholefood Shop	Total
Very Important	40	20	60
Quite Important	21	28	49
Unimportant	19	32	51
Total	80	80	160

Chi-squared = 10.98 with two degrees of freedom, significant beyond .01 level

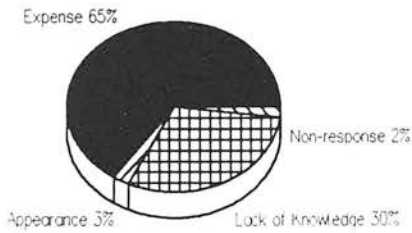
The distribution of responses in Table 4.4 shows that most supermarkets believed environmental concern to be at least quite important as a buying motivation. However, a lesser proportion of wholefood shops believed that concern for the environment was quite or very important. As the chi-squared statistic resulting from this data set is significant with $P > .01$, it may be assumed that significantly more supermarkets than wholefood shops rated environmental concern as important.

4.6 The Importance of Organic Non-buying Reasons

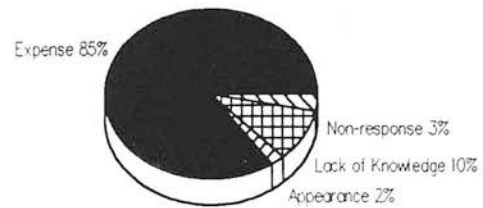
Organic non-buyers comprise the majority of the public (Mintel 1991), therefore it is vital to investigate the reasons behind the non-purchase decision. Supermarkets, wholefood shops and farm shops were asked to indicate with a number from 1 to 3, the relative importance of the following non-buying reasons: "too expensive", "put off by appearance" and "lack of knowledge about organics". These reasons were chosen because of the importance accorded to them by previous studies of organic demand (Boyle *et al* 1991, Mintel 1991). Pre-survey testing of the greengrocer questionnaire prompted the re-wording of the third reason "lack of knowledge about organics" into "happy with conventional produce". Figure 4.6 shows the results of each retailer survey by charting, for each non-buying motivation category, the percentage of respondents who indicated that it was the most important in their customer's decision not to buy organic.

Figure 4.6 Retailers' ratings of the most important reasons influencing people not to buy organics

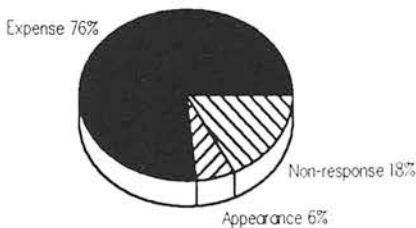
a. Wholefoods (n=80)
Most important non-buying motivation?



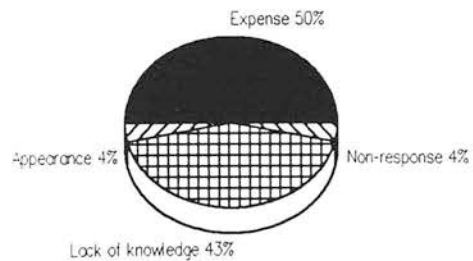
b. Supermarkets (n=81)
Most important non-buying motivation?



c. Greengrocers (n=17)
Most important non-buying motivation?



d. Farm Shops (n=28)
Most important non-buying motivation?



Conventional CK = 0%

Comparison between the above diagrams shows that the greatest proportion of each retailer type believed "expense" to be the most important non-buying reason. Nevertheless, the size of these proportions varied from 50% of farm shops (Fig 4.6d) to 85% of supermarkets (Fig 4.6b). In addition, "lack of knowledge" was rated as the most important non-buying reason by nearly one third of wholefood shops (Figure 4.6a) and nearly half of farm shops (Figure 4.6d), although very few supermarkets (2%) rated this factor so highly (Figure 4.6a). There was clearly some disparity between retailers' ratings of the importance of organic non-buying factors and to test these, chi-squared analysis was undertaken on wholefood shop and supermarket ratings of "expense", "lack of knowledge" and "appearance". The following three sections describe these tests in turn.

4.6.1 *The Importance of Expense as a Non-buying Reason*

To test the difference between supermarket and wholefood shop estimations of the importance of "expense", the ratings both types of retailer gave to this factor's importance (indicated with a number from 1 "Most important" to 3 "Least important") were tabulated:

Table 4.5 *Distribution of supermarket and wholefood shop responses according to their ratings of the importance of organic expense as a non-buying reason*

Expense Importance	Supermarkets	Wholefood Shops	Total
Most Important	69	52	121
2nd Most	9	21	30
Least Important	3	7	10
Total	81	80	161

Chi-squared = 8.783 with 2 degrees of freedom, significant with $P > .02$

Table 4.5 shows that a greater number of supermarkets rated expense as the most important non-buying reason compared with wholefood shops. It may be assumed that as the value of chi-squared is significant with $P > .02$, a significantly greater proportion of supermarkets rated expense as most important.

4.6.2 *The Importance of Lack of Knowledge as a Non-buying Reason*

Knowledge is an important issue in consumer behaviour because it precedes the decision to buy (Lavidge and Steiner 1986). Without knowledge therefore, consumers are very unlikely to buy a product and this may be a particular problem to supermarket retailers who have a non-specialised clientele. Yet Figure 4.6 shows that a third of wholefood shops believed lack of knowledge to be the most important non-buying reason, compared with only 10% of supermarkets. To test their ratings of the importance of knowledge to the organic buying decision, their responses were tabulated as follows: responses 1 fell into the category "*Most important*", responses 2 into the category "*Second most important*" and responses 3 into the category "*Least important*" (Table 4.6).

Table 4.6 *The distribution of wholefood shops and supermarkets according to their estimations of the importance of "lack of knowledge about organics" as a non-buying reason*

Knowledge Importance	Supermarkets	Wholefood Shops	Total
Most Important	8	24	32
2nd Most Important	35	34	69
Least Important	24	14	38
Total	67	72	139

Chi-squared = 10.48 with two degrees of freedom, significant beyond the level .01

The frequency distribution of responses in Table 4.6 shows that a greater number of supermarket respondents believed lack of knowledge to be the least important of three non-buying reasons, while a greater number of wholefood shops claimed it was the most important reason. Indeed, the chi-squared value obtained from this data exceeds the critical value of chi-squared with $P > .01$. Therefore, it may be assumed that significantly more wholefood shops rated "lack of knowledge" as the most important non-buying reason compared with supermarkets. This contradicts the theory that lack of knowledge is perceived to be a greater barrier to purchase among retailers of large stores.

4.6.3 The Importance of Appearance as a Non-buying Reason

Figure 4.6 shows that organic "*appearance*" was rated as the most important non-buying reason by only a minority of supermarket and wholefood shop respondents. To undertake a full comparison of responses however, the ratings "*second most important*" and "*least important*" should be included. A full distribution of responses is shown in Table 4.7:

Table 4.7 The distribution of wholefood shop and supermarket respondents according to their ratings of the importance of organic appearance as a non-buying reason

Appearance Importance	Supermarkets	Wholefood Shops	Total
Most Important	2	2	4
2nd Most Important	27	17	44
Least Important	52	61	113
Total	81	80	161

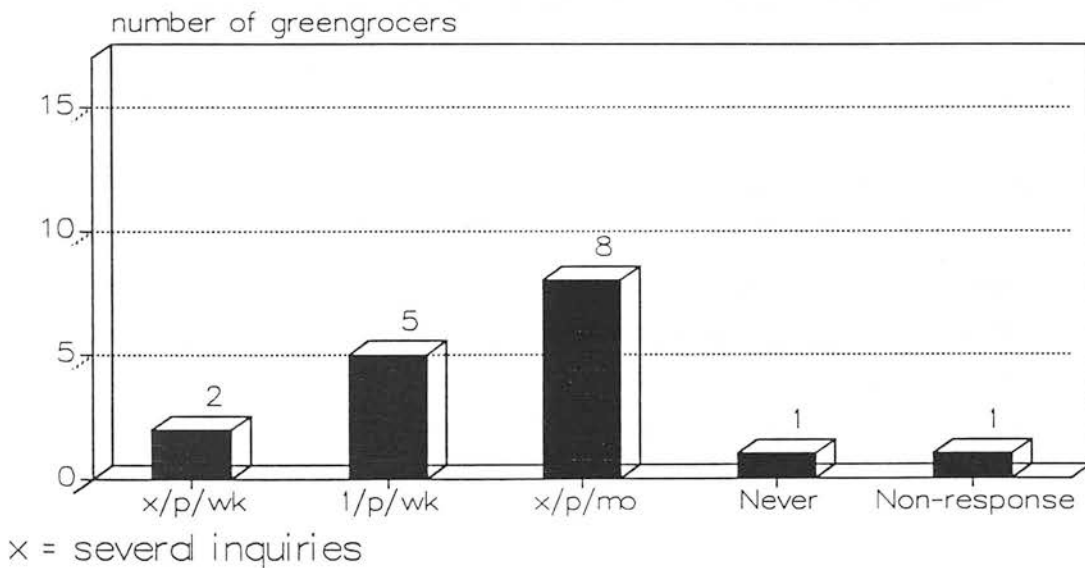
Chi-squared = 2.794 with one degree of freedom, not significant with $P > .05$

It is apparent that the proportions of supermarket and wholefood shop responses in Table 4.7 were similar, as the majority of each type believed "*appearance*" to be the least important non-buying reason of the three reasons listed. For chi-squared analysis, the response categories "*Most important*" and "*Second most important*" were combined, because alone the category "*Most important*" did not contain a sufficient number of responses to obtain a valid chi-squared statistic. As the obtained value did not exceed the critical value of chi-squared with $P > .05$ however, it cannot be assumed that a significant difference existed between supermarket and wholefood shop ratings of the importance of organic appearance as a non-buying motivation.

4.7 Inquiries from Greengrocer Customers about Organics

During pre-survey testing of the greengrocer questionnaire, no interviewees were found to stock organics on a consistent basis. It was reasonable to assume that greengrocer customers who wanted to purchase organics would ask for it if they did not see the produce in-store. Greengrocer respondents were therefore asked the frequency at which customers inquired about organic produce when no such produce was in stock. Their responses are shown in Figure 4.7:

Figure 4.7 The frequency of customer inquiries about organics in greengrocers (n = 17)



The chart shows that all but one respondent claimed to receive inquiries about organics, and indeed nearly half claimed to receive inquiries at least once a week. However, the greatest proportion of respondents (47%) received inquiries no more than several times per month.

4.8 Supermarkets' Weekly Turnover for Organics

As the major chains in this retailer sector have expended at least some effort in promoting organic produce, it was important to obtain an indication of the current demand level for organics in supermarkets. Retailers were asked to estimate their weekly turnover for the produce according to a 7-point scale from "less than £20 per week" to "more than 3000 pounds per week" (Figure 4.8). The categories of this scale were drawn up following pre-survey testing of the questionnaire in Edinburgh supermarkets.

Figure 4.8 Estimated weekly turnover of organics by supermarket respondents

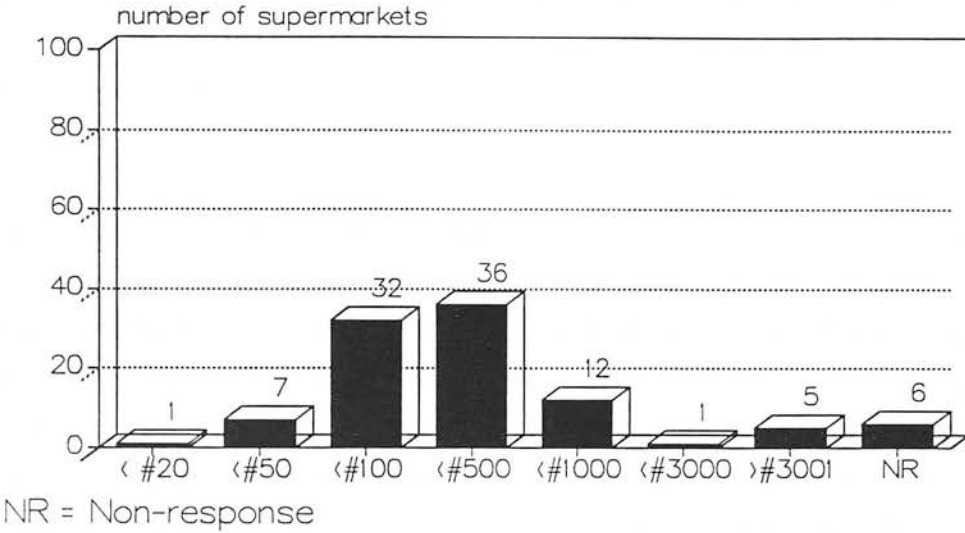


Figure 4.8 shows that the greatest proportion of supermarkets achieved a turnover of between £100 and £500 per week, although 12% claimed to receive between £500 and £1000 per week. The current research also proposes variations in the organic market according to region, in particular that the demand for organics in some regions falls short of the demand in other regions. To test this, estimations of weekly turnover of organics were tabulated against the regional location of the respondents. In Table 4.8, "Northern" region encapsulates Scotland, Wales and the North of England, while "Southern" region signifies the Midlands, South East and South West of England.

Table 4.8 The distribution of supermarket respondents according to their regional location and their estimated weekly turnover for organics

Turnover	"Northern"	"Southern"	Total
<£500 p/wk	32	29	61
£500 p/wk or more	7	8	15
Total	39	37	76

Chi-squared = .612 with one degree of freedom, not significant with $P > .05$

Table 4.8 shows that a slightly larger proportion of northern supermarkets had a weekly turnover of less than £500. However, the distribution of respondents here was even and the chi-squared value which resulted from this data set (.162) was not significant with $P > .05$. Thus, no significant relation may be assumed between a supermarket's level of weekly turnover and the region in which it was situated.

4.9 Premiums Paid for Organic Produce

Supermarkets have been the subject of recent criticism in relation to their organic stocking policies: Woodham (1991) and Erlichman (1992) accuse the food multiples of passing the cost of procuring organics onto the consumer. One crucial aim of the current research was to investigate the price premiums of supermarkets in comparison to those of other retailers. Thus, wholefood shops, supermarkets and greengrocers were all asked to estimate how much more, on average, they had to pay suppliers for organic foods compared to the equivalent conventional foods they stocked. To ease comparison of responses, each retailer was asked to indicate the average premium paid as a percentage mark-up, from a list of categories (Table 4.9). It should be recognised that although this question was intended to concern all kinds of foods, a greater proportion of wholefood shop responses may have pertained to non-fresh produce compared with supermarket responses.

Table 4.9 *The distribution of responses for wholefood shops, supermarkets and greengrocers according to the % premiums paid for organic produce over the equivalent conventional produce*

Premium Paid	Supermarket ¹	Wholefood Shop ²	Greengrocer	Total
100% or more	5	8	6	19
50% or more	35	42	1	78
Less than 50%	35	26	9	70
No premium	1	0	0	1
Total	76	76	16	168

Data columns (1) and (2) used for chi-squared analysis

It can be seen that while the distribution of supermarket and wholefood shop responses varied to some extent, very few respondents within each type had to pay a 100% premium, although even less claimed to pay no premium at all. Table 4.9 also shows that nearly a third of greengrocers claimed to be paying 100% or more for organics over their equivalent conventional produce, and that no greengrocers paid the same price for organics as for conventional. To test whether the differences between wholefood shop and supermarket premiums were significant, chi-squared analysis was undertaken. It was also important to investigate whether the regional location of the respondent had any bearing on the organic premium level incurred. The following two sections cover the analysis of both issues.

4.9.1 *Wholefood Shop and Supermarket Premiums*

Table 4.9 revealed some variation between the level of premium paid by wholefood shops and supermarkets: a slightly greater proportion of wholefood shops (column (2)) were obliged to pay 50% or 100% more for organics than supermarkets did (column (1)). Responses were tested by chi-squared analysis to discover whether the disparity between the two retailer types was significant. To do this, the categories "100% more" and "50% more" were combined, as were the categories of "Less than 50%" and "No premium". The chi-squared value obtained by the test (2.724 with one degree of freedom) was not significant with $P > .05$. Contrary to expectations therefore, it **cannot** be assumed that there was any significant difference in the premiums paid to organic suppliers by supermarkets and wholefood shops in this survey.

4.9.2 *Regional Location and Organic Premium*

Regional variations in the organic market have already been proposed: here, it was decided to test the variations in premiums paid by supermarket and wholefood shop respondents according to their regional location. Table 4.10 displays the proportion of "Northern" (from Scotland, Wales and the North) and "Southern" (from the Midlands, South East and South West) wholefood shops and supermarkets according to the premiums they claimed to pay. "Large" premiums denote those of 50% or more, while "Small" signifies premiums of less than 50%.

Table 4.10 *The distribution of wholefood shops and supermarkets according to regional situation and level of premium paid for organics*

Premium Level	Wholefood Shops			Supermarkets		
	Northern	Southern	Total	Northern	Southern	Total
	(1)	(2)		(3)	(4)	
Large	20	30	50	19	21	41
Small	12	14	26	21	15	35
Total	32	44	76	40	36	76

It can be seen from the distribution of wholefood shop responses (columns (1) and (2)) that there was very little proportional difference between northern and southern respondents in the size of premium paid, and indeed the chi-squared statistic calculated from this data (.266) was not significant with $P > .05$. Similarly, columns (3) and (4) of Table 4.10 show very little proportional difference between northern and southern supermarkets in the level of premium they claimed to pay, and the chi-squared statistic for this data set (.892) is not significant with $P > .05$. Since neither values are significant beyond the .05 level for both supermarkets and wholefood shops, it cannot be assumed that any significant differences existed in the level of premium paid to organic suppliers according to the regional situation of the retailer.

4.10 Comparison of Organic Prices in Different Retailers

The prices of organics in supermarkets and wholefood shops were recorded during pre-survey testing of retailer questionnaires in the Edinburgh area. A comparison between the two showed wholefood shops generally had lower-priced organics compared to supermarkets. As part of the postal survey, retailers were asked to rate their level of organic prices with those of competitors (Figure 4.9). It was believed that this method of obtaining price information would be more useful than asking for prices of particular items because information obtained by the latter method would be subject to the limitations of each retailers' type of stock.

Figure 4.9 Retailers' ratings of own organic prices against those of other retailer types

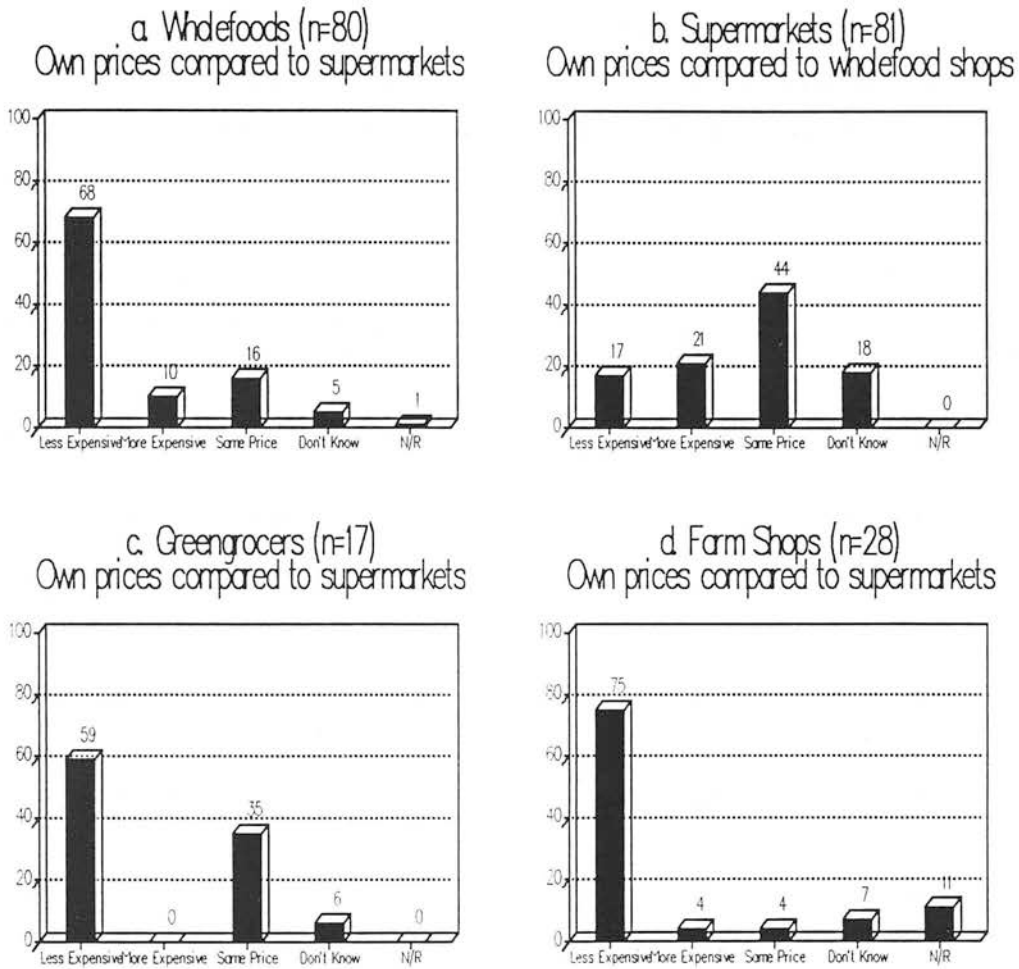


Figure 4.9a shows that the majority of wholefood shops around the country (68%) believed their organic prices to be lower than those of supermarkets: indeed only 10% considered their prices to be more expensive. By contrast, only a fifth of supermarkets believed their prices were higher than wholefood shops and importantly, 18% did not know how their prices compared with those of competitors (Figure 4.9b). Only 5% of wholefood shops were unaware of supermarket prices. While over half the greengrocers surveyed believed their organic prices to be lower than those of supermarkets (Figure 4.9c), an even greater proportion of farm shops (75%) thought their organic produce was the least expensive of all the retailer types (Figure 4.9d).

4.10.1 Comparison of Organic Prices: Wholefood Shops and Supermarkets

Chi-squared analysis was carried out to test the disparity between wholefood shop and supermarket ratings of how their organic prices compared with those of their competitors. To do this, the response categories "more expensive", "less expensive" and "same price" were used (Table 4.11):

Table 4.11 *The distribution of wholefood shops and supermarkets according to their rating of organic prices in comparison with the other retailer*

Price Rating	Wholefood Shops	Supermarkets	Total
More Expensive	7	17	24
Same Price	13	36	49
Less Expensive	54	13	67
Total	74	66	140

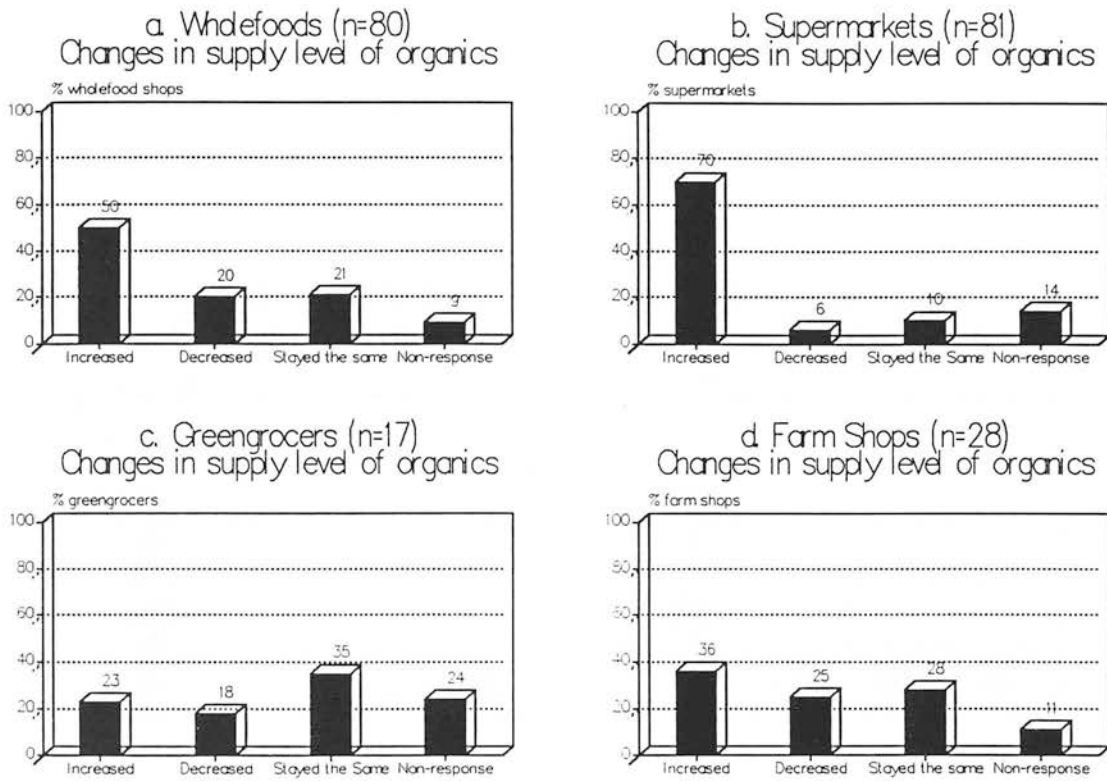
Chi-squared = 39.725 with 2 degrees of freedom, significant beyond the .001 level

It can be seen from the distribution of responses in Table 4.11 that the greatest proportion of wholefood shops believed their organic prices were less expensive than supermarkets, while the greatest proportion of supermarkets believed their prices to be level with wholefood shops. As the chi-squared result is significant, it may be assumed that a significant disparity existed between supermarket and wholefood shop estimations of each others' organic prices.

4.11 Supply Changes in Organics made by Retailers

As evidence suggests that the growth in demand for organics has slowed down recently (Mintel 1991), it was important to investigate how the supply of organics in retailers had fluctuated over a short period. Therefore, all retailer respondents were asked if they had increased or decreased the supply of organics in their stores over the last two to three years (Figure 4.10).

Figure 4.10 Changes made in the supply of organics by retailers over the last two to three years

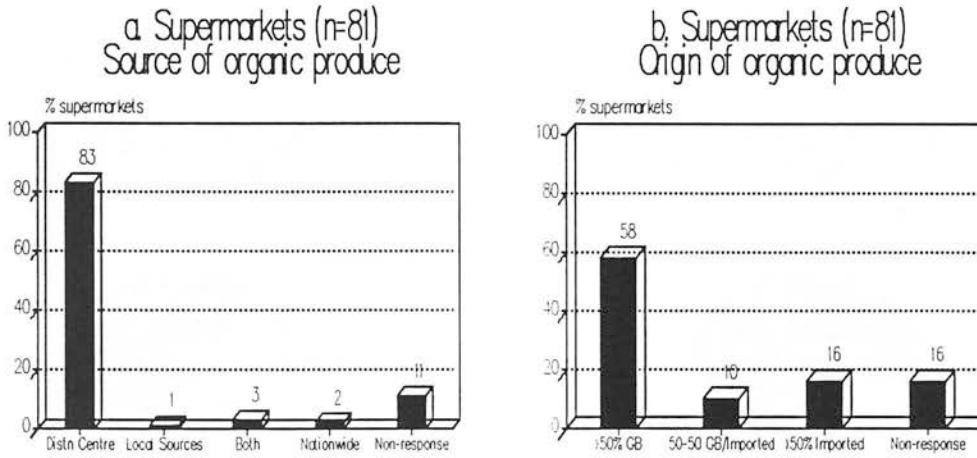


From Figures 4.10a and 4.10b it can be seen that at least half of wholefood shops and 70% of supermarkets claimed to have increased their supply of organics over the last two to three years. This was in spite of reports of a downturn in organic sales in 1990 (Mintel 1991). Furthermore, while a substantial 20% of wholefood shops and 25% of farm shops (Figure 4.10d) have actually decreased their stock, only a small proportion of supermarkets have acted in this way (Figure 4.10b). Recognition should also be made of the fact that a considerable proportion of wholefood shops (21%), farm shops (28%) and greengrocers (35%) have stocked the same level of organics over the last two to three years.

4.12 Source and Origin of Organic Produce for Supermarkets

Supermarkets employ considerable levels of transportation and processing to stock organics (Woodham 1991, Erlichman 1992). These factors can have important implications for the freshness of the produce, thus an investigation was made of the source of supermarket respondents' organic produce. Each respondent was asked to indicate both the source of their organic produce (in terms of the processor or wholesaler involved) and the produce's country of origin (Figure 4.11).

Figure 4.11 The source and origin of supermarkets' fresh organic produce

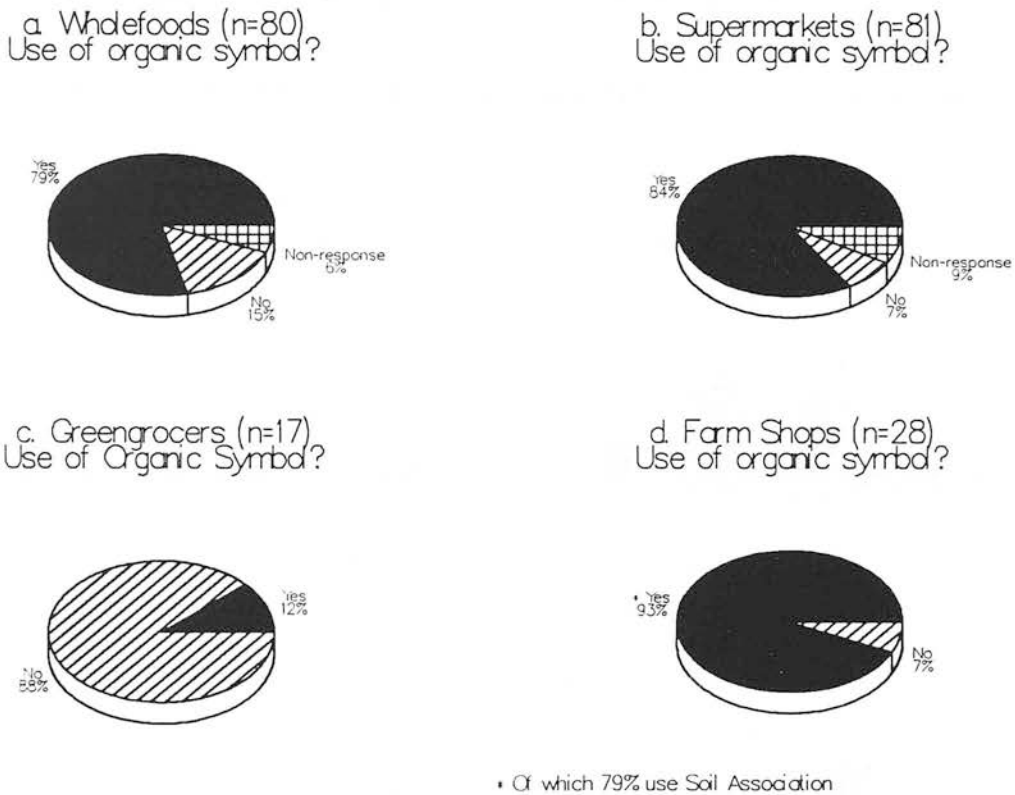


It can be seen from Figure 4.11a that although the majority of respondents (83%) did source their produce from a distribution centre, most (58%) also asserted that the greatest part of their produce was grown in Great Britain (Figure 4.11b). Also of note was the small proportion of supermarkets (16%) who claimed that the majority of their organic produce was imported. As this survey took place during April and May, it should be recognised that this result may be subject to variation according to the time of year as well as to the type of produce stocked by the retailer.

4.13 Certification of Organic Produce by Retailers

Discussion of certification for organics in Chapter 1 has indicated that a great deal of confusion surrounds the definition of the term organic and that this has a detrimental effect on demand. The use of only certified organic produce can also be an indication of a retailer's commitment to organics. Hence, retailers were asked if the organic produce they stocked carried a symbol from a certified association (Figure 4.12).

Figure 4.12 The use of independently certified organic produce by retailers



It is clear from these diagrams that the use of standard symbols was widespread among wholefood shops, supermarkets and farm shops (Figures 4.12a, 4.12b and 4.12d respectively). Greengrocers represented the only retailer type not employing the use of symbols as only 12% claimed they handled certified produce (Figure 4.12c). It should be noted that although 79% of farm shops cited the Soil Association symbol, this high proportion is undoubtedly enhanced by the farm shop sample being drawn from a Soil Association publication. In addition, the 7% of farm shops (Figure 4.12d) recorded as not using an organic symbol only had a part of their land not yet certified. In each case, this land was less than 30 hectares and was in the process of being converted from conventional to organic. Among supermarkets and wholefood shops the most widely recognised certification is that issued by the Soil Association, though wholefood shop respondents mentioned a diverse variety of symbols both British and foreign.

4.14 Wastage Levels for Fresh Organic Produce

One consequence of supermarkets' stocking policies is the high wastage of fresh organics which they incur (Woodham 1991, Erlichman 1992). The discussion in Chapter 1 also suggested that wholefood shops, greengrocers and farm shops enjoy relatively low levels of wastage because their stock of fresh organics is below that of supermarkets. To investigate this, all retailer respondents were asked to indicate the average level of wastage they encountered from every batch of fresh organic produce stocked. Response categories, created prior to data collection, were selected following pre-survey testing of questionnaires among Edinburgh retailers. Categories express wastage levels as a percentage to facilitate comparison of results.

Figure 4.13 Wastage levels for fresh organic produce incurred by retailer respondents

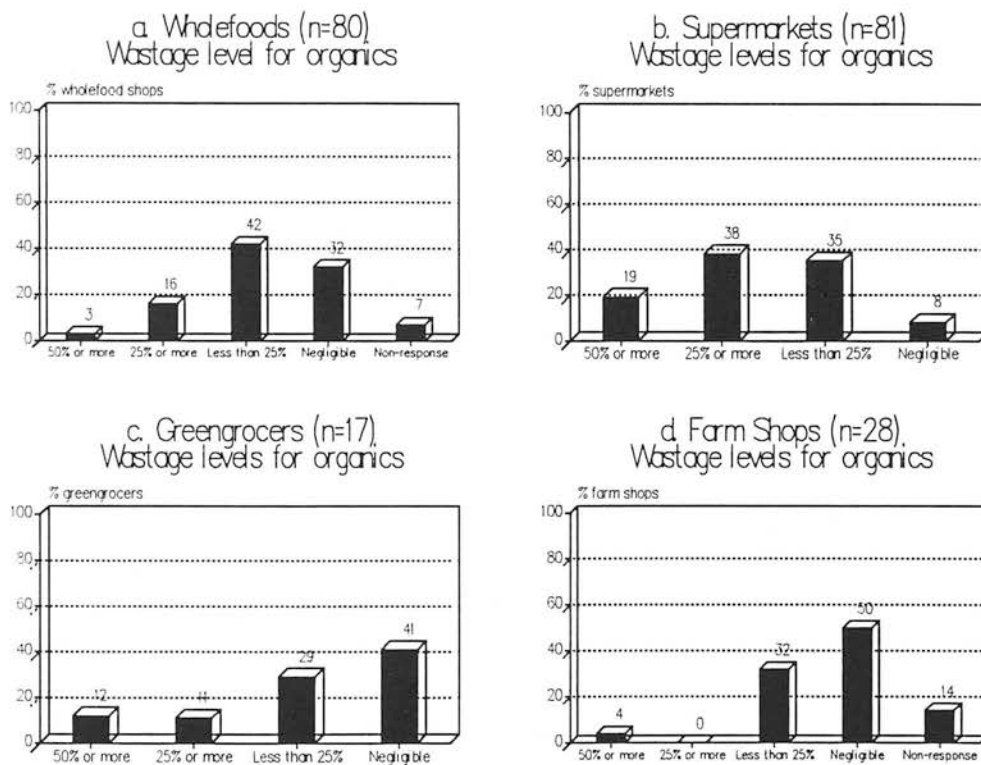


Figure 4.13 shows that a small minority of wholefood shops, greengrocers and farm shops incurred 50% wastage or more on an average batch of organic produce (Figures 4.13a, 4.13c and 4.13d). However, the proportion of supermarkets who suffered this level of wastage was higher at 19% (Figure 4.13b). Similarly, while over a third of wholefood shops and greengrocers and half of farm shops enjoyed negligible levels of wastage, only 5% of supermarkets claimed this level of wastage (Figure 4.13b). Also of note is the proportion of greengrocers (50%) who claimed that their wastage for organic produce was no different from that encountered in conventional lines.

4.14.1 Wholefood Shop and Supermarket Wastage Compared

Figures 4.13a and 4.13b show differences in the wastage levels for organic produce incurred by wholefood shops and supermarkets, and to test these differences, chi-squared analysis was undertaken. To ensure a valid result, the original responses "50% or more" and "25% or more" were combined into the category "High Wastage" and the responses "Less than 25%" and "Negligible" were combined into the category "Low Wastage". Table 4.12 displays the distribution of supermarket and wholefood shop responses according to this categorisation.

Table 4.12 *The distribution of supermarkets and wholefood shops according to their levels of wastage for organic produce*

Wastage Level	Supermarkets	Wholefood Shop	Total
High Wastage	45	16	61
Low Wastage	36	59	94
Total	80	75	155

Chi-squared = 19.774 with one degree of freedom, exceeds the critical value of chi-squared with $P > .001$

The distribution of responses in Table 4.12 generates a very significant result by chi-squared analysis: thus it may be concluded that a significantly greater number of supermarkets in this survey incurred high wastage in comparison to wholefood shops.

4.14.2 Supermarket and Farm Shop Wastage Compared

The levels of wastage for fresh organic produce incurred by supermarkets and farm shops were also tested by chi-squared analysis, employing the same method of categorisation described above. Table 4.13 displays the test:

Table 4.13 *The distribution of farm shops and supermarkets according to the levels of wastage of fresh organics incurred*

Wastage Level	Farms Shops	Supermarkets	Total
High Wastage	1	46	47
Low Wastage	23	35	58
Total	24	81	105

Chi-squared = 20.736 with one degree of freedom, significant with $P > .001$

The distribution of responses in Table 4.13 shows that a far greater proportion of farm shops incurred a "Low wastage" level than a "High wastage" level. The majority of supermarkets however, incurred high levels of wastage. The fact that the chi-squared value from this data set is significant allows the assumption that the difference between supermarket and farm shop responses here is significant.

4.15 Supermarkets' Estimation of the Problems of Selling Organics

As supermarkets carry conventional as well as organic produce, it was of importance to investigate their view of the problems involved in selling two types of product simultaneously. Supermarket respondents were asked therefore: "What are the main problems in selling two conflicting products at the same time?" The question was left open-ended to procure the most spontaneous responses, and upon completion of data collection, the most frequent answers provided the categories shown in Figure 4.14.

Figure 4.14 Supermarkets' estimation of the problems of selling organics; the training of supermarket staff about organics; supermarket opinions towards "bio-corners"

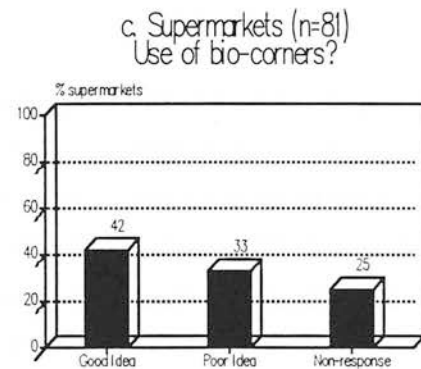
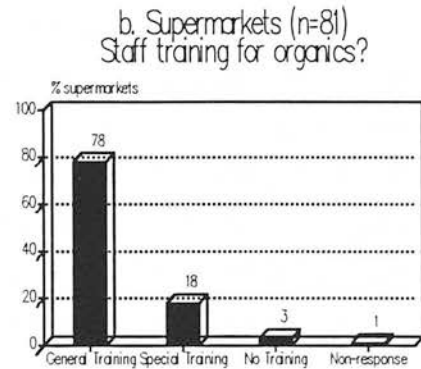
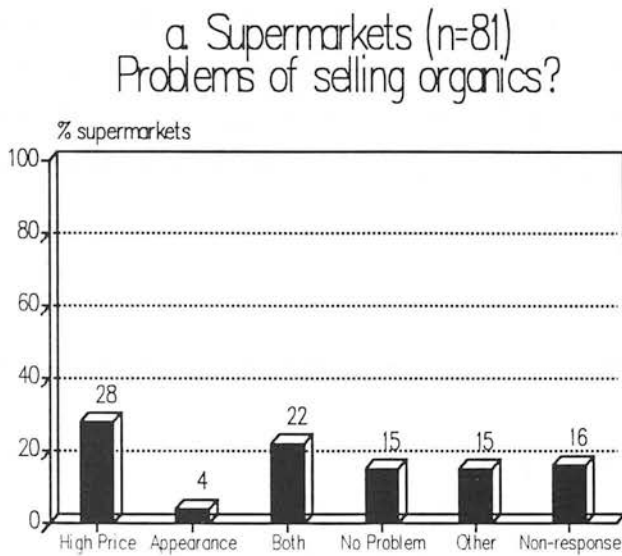


Figure 4.14a shows that 15% of supermarkets believed that selling equivalent organic and conventional was not a problem, although the greatest proportion of respondents (28%) perceived the main problem to be the high price of organics. This proportion was closely followed by those (22%) who considered high price **and** appearance as being of equal importance (one respondent commented "*products often come in dull earthy-toned packaging which detracts from impact*"). Some respondents also commented on the difficulty of having two types of the same product side-by-side: "*The difficulty is in ensuring the customer buys the correct item they want as confusion can occur*".

4.16 Supermarket Staff Training in Organics

As a link has been proposed between knowledge about organics and the likelihood of purchase (Lavidge and Steiner 1961, cited in Kotler 1984), in this survey it was important to know how well-informed about organics supermarket staff were so that customers could easily be supplied information should this be required. The training of supermarket staff is particularly important in view of the wide customer base of this retail outlet, which implies a large proportion of customers possessing limited knowledge about organics. Figure 4.14b, above, shows that of all the supermarkets surveyed here, only 18% asserted that specific staff training for organics took place. Only 3% of respondents admitted that no training took place at all, while the remainder claimed that training about organics took place as part of general employee training.

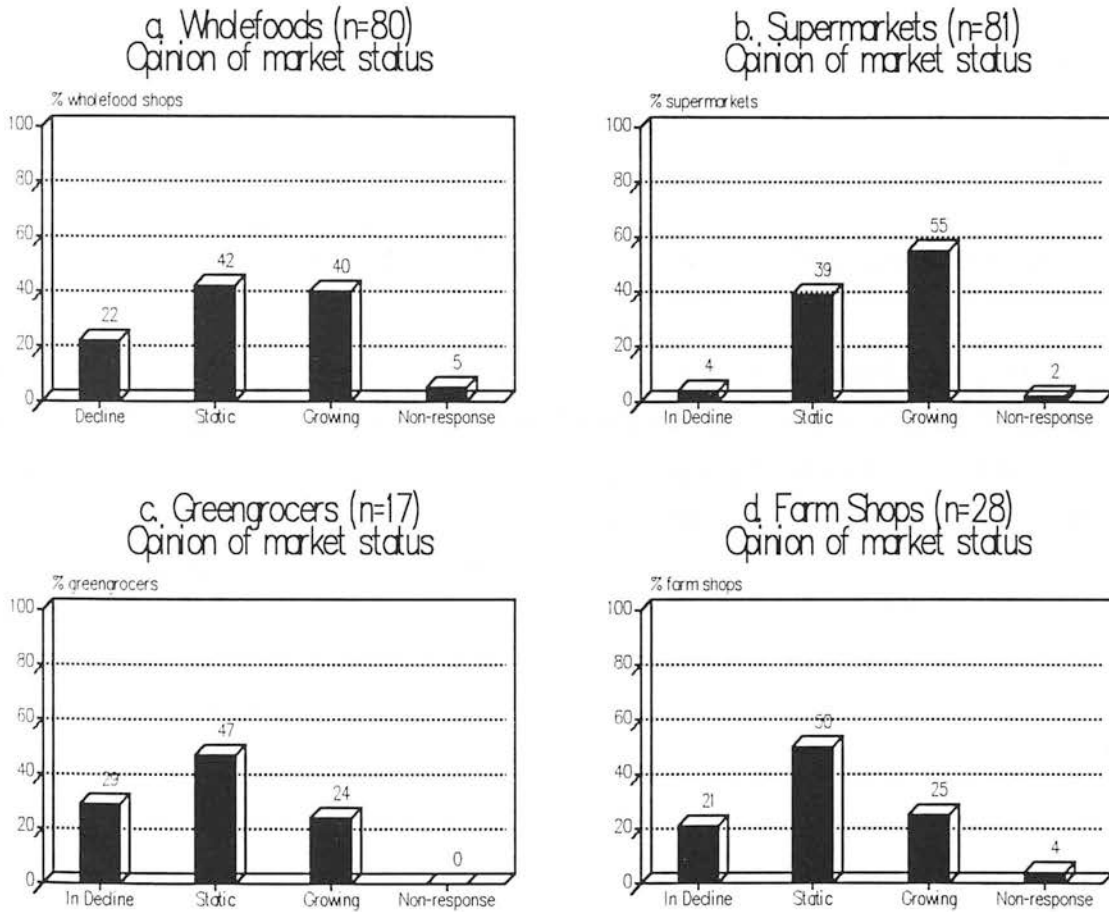
4.17 Supermarket Opinions towards "Bio-Corners"

The discussion in Chapter 1 introduced the subject of the appeal of the small shop and how supermarkets have attempted to imitate this appeal with "*store within a store*" or "*bio-corner*" trials, where certain products are grouped together by a theme such as environment-friendly properties. Supermarket respondents were asked to agree or disagree with this method of separation and to comment on its worth. Responses were split quite evenly (Figure 4.14c), although a slight majority (42%) agreed that bio-corners would attract more buyers for organic produce. One comment supplied by a respondent favourable to bio-corners was: "*they make it easier to find the products*", whereas examples of unfavourable comments were: "*Niche oriented - reinforces image of crank*" and "*The only increase in sales by separating organic produce is people picking organic up by mistake*".

4.18 The State of the Market as Rated by Retailers

This study wished not only to obtain information on the business operations of organic retailers, but also to investigate their opinions as to the current state of the organic market in Great Britain. To this end, all retailer respondents were asked to indicate if they thought that the market for fresh organic produce (in terms of consumer demand) was growing, static or in a state of decline (Figure 4.15).

Figure 4.15 The opinions of retailers as to the current state of the organic market



As can be seen from the above diagrams, an albeit slim majority of wholefood shops, greengrocers and farm shops were in agreement that the organic market is currently static (Figures 4.15a, 4.15c and 4.15d respectively). Supermarket respondents provided the exception (Figure 4.15b), as over half claimed that the market is growing. It was decided to test the difference between supermarket and wholefood shop responses by undertaking a chi-squared analysis (Table 4.14).

Table 4.14 *The distribution of supermarket and wholefood shop responses according to their view of the state of the organic market*

Market Status	Supermarket	Wholefood Shop	Total
Growing	45	32	77
Static	31	34	65
Decline	3	10	13
Total	79	76	155

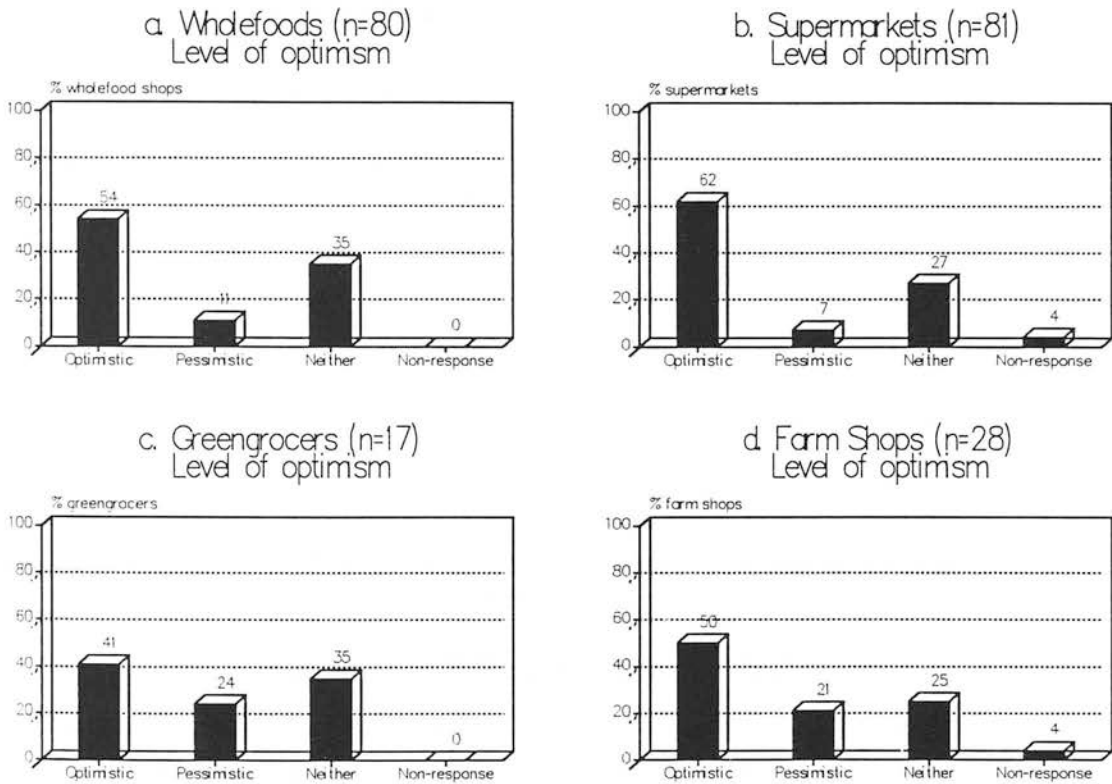
Chi-squared = 6.047 with two degrees of freedom, not significant with $P > .05$

It can be seen that a greater proportion of supermarkets than wholefood shops believed that the organic market is growing, however the chi-squared value obtained from the above data set (6.047 with two degrees of freedom) is not significant with $P > .05$. It cannot be assumed therefore, that any significant difference existed between supermarket and wholefood shop views of the movement of the organic market.

4.19 Optimism/Pessimism of Retailers

With recent evidence to suggest that the demand for organics has stagnated (Mintel 1991, Erlichman 1992), and with the negative impact of the recession, it was important to investigate retailers' views of future market prospects. Respondents were asked to indicate their feelings in view of the prospects for the organic market over the next two to three years (Figure 4.16).

Figure 4.16 Degrees of optimism or pessimism of retailers as to the future of the organic market



It can be seen from these diagrams that the subject of the future of the market generated perhaps the most unanimous set of responses between retailers, as the majority within each type claimed to be optimistic about the future. The greatest proportion of pessimists (24%) was found among greengrocer respondents (Figure 4.16c): by comparison, only 7% of supermarkets and 11% of wholefood shops claimed to feel pessimistic about the future for organics (Figures 4.16b and 4.16a). It is evident from these diagrams that some differences existed between the views of supermarkets and wholefood shops, and this was tested using chi-squared analysis. The links between supermarkets' and wholefood shops' regional location and their levels of optimism were also tested by chi-squared analysis.

4.19.1 Wholefood Shop and Supermarket Optimism Levels Compared

To test whether a significant difference existed between the views of supermarkets and wholefood shops, their responses to the question of optimism (Figures 4.16a and 4.16b) were tabulated and a chi-squared test undertaken (Table 4.15a):

Table 4.15 *The distribution of supermarkets and wholefood shops according to their level of optimism or pessimism*

Level	Supermarkets	Wholefood Shops	Total
Optimistic	50	43	93
Neither	21	28	49
Pessimistic	6	9	15
Total	77	80	157

Chi-squared = 2.070 with 2 degrees of freedom, not significant beyond the level .05.

It can be seen from Table 4.15 that there was a slight variation between the responses of wholefood shops and supermarkets to the question of optimism: nevertheless, the value of chi-squared obtained from this distribution was not significant. As such, it may not be assumed that any significant difference existed between supermarket and wholefood shop levels of optimism or pessimism.

4.19.2 Regional Location and Optimism Levels

The existence of regional variations in the organic market have been subject to much investigation by the current research. Here the geographical situation of retailers was associated with their levels of optimism or pessimism. To test this association, wholefood shop and supermarket responses to the question of optimism were tabulated against their location (Table 4.16), regional categories being related to the extent of organic agriculture undertaken in different areas of Great Britain (Murphy 1992). "Northern" region denotes Scotland, Wales and the North of England (areas of relatively low levels of organic agriculture), while

"*Southern*" region denotes the Midlands, South East and South West of England, believed to be areas of relatively widespread organic agriculture.

Table 4.16 *The distribution of supermarkets and wholefood shops according to their regional situation and level of optimism or pessimism*

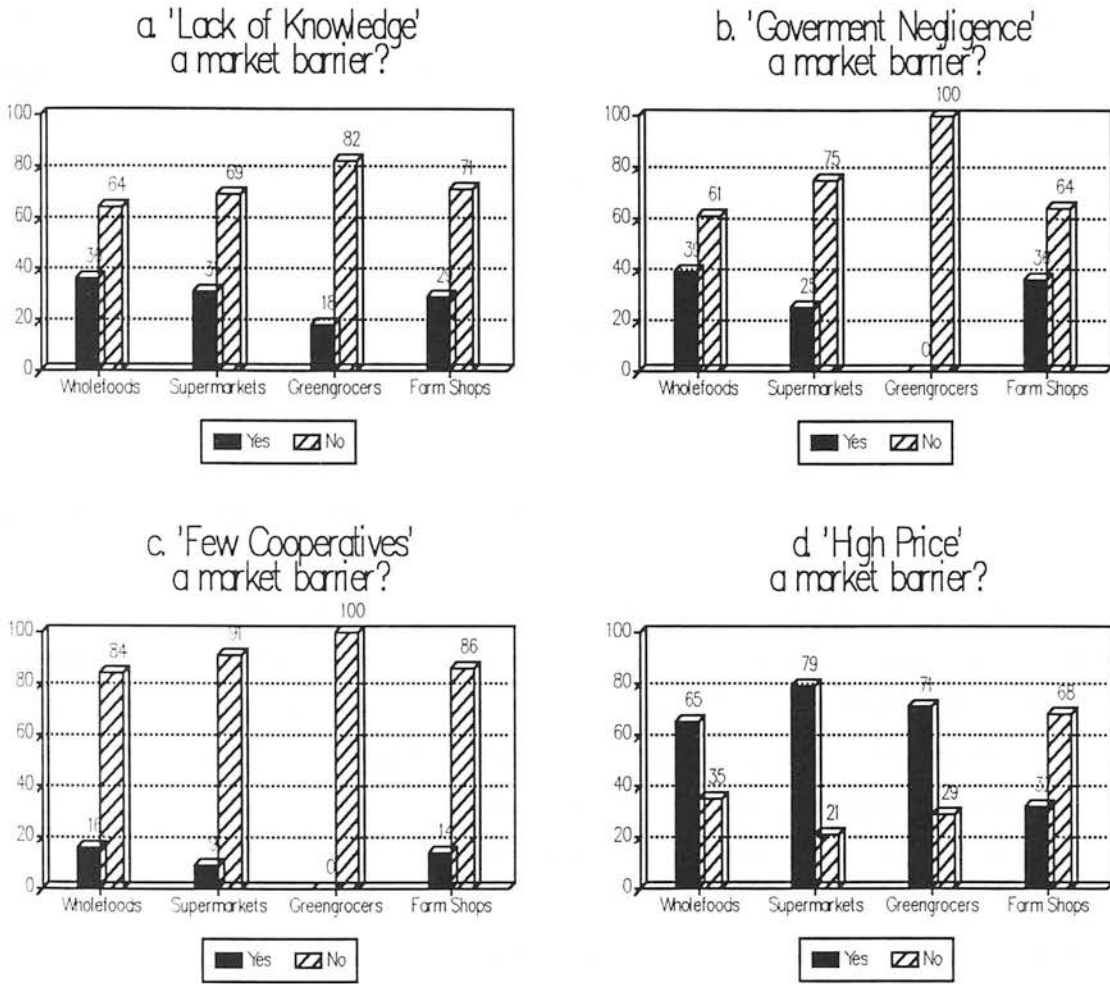
Level	Supermarkets			Wholefood Shops		
	Northern (1)	Southern (2)	Total	Northern (3)	Southern (4)	Total
Optimistic	24	26	50	15	28	43
Neither	5	1	6	3	6	9
Pessimistic	11	11	22	17	11	28
Total	40	38	78	32	39	71

It can be seen from the distribution of supermarket responses (columns 1 and 2) and those of wholefood shops (columns 3 and 4) that there was very little proportional difference between the northern and southern respondents' levels of optimism: the majority of retailers in every region (except column 3 "*Northern*" wholefood shops) were optimistic about the future of the organic market. To allow a chi-squared analysis of regional variations, the categories "*Neither*" and "*Pessimistic*" were combined to make a clear distinction between positive and less positive retailers. The chi-squared values obtained from analysis of northern and southern supermarkets and wholefood shops (respectively .601 and 2.970 with one degree of freedom) did not exceed the critical values for chi-squared tests at the level .05. Therefore it cannot be assumed that any significant differences existed between wholefood shops' and supermarkets' regional location and their levels of optimism.

4.20 Retailers' Views of the Most Important Organic Market Barriers

The discussion in Chapter 1 highlighted the differences which exist between the operations of British organic retailers. From this, it was proposed that each retailer type would perceive distinct market barriers. To investigate this, all retailer respondents were asked to indicate what they considered to be the main barriers facing the current organic market. To assist analysis, respondents were invited to indicate the most important barriers from a list of possible responses. The multiple-choice format allowed respondents of every retailer type to consider factors which may have had a different impact on retailers other than themselves, thus testing their awareness of the diversity of barriers facing the organic market. The response categories themselves were selected as a result of Edinburgh retailers' responses to the same question during testing of the questionnaires. They included "*Lack of consumer knowledge about organics*", "*Lack of government support of organic producers*", "*Lack of organic producer cooperatives*" and "*High price of organics*". Figures 4.17a to 4.17d show, for each market barrier, the proportion of retailers who believed the factor was or was not a market barrier.

Figure 4.17 The proportion of retailers who considered "Lack of knowledge", "Government negligence", "Few cooperatives" and "High price" to be organic market barriers.



First, it should be noted that most respondents nominated only one barrier although some retailers - notably wholefood shop respondents - pointed out the interdependence between all the factors, which together represented a chain of difficulties. Figure 4.17d shows that high organic prices were considered to be an important market barrier by the majority of wholefood shop, supermarket and greengrocer respondents. 36% of farm shop respondents however, claimed lack of government support was an important factor. In addition, over a third of wholefood shops - the other small, committed retailer type surveyed - judged this factor important (Figure 4.17b). By contrast, only a small proportion of supermarkets perceived lack of government support to be a barrier (Figure 4.17b), and an equally small proportion identified the lack of cooperatives as being a market barrier (Figure 4.17c).

4.21 Retailers' View of Factors Pertaining to the Organic Market

For the final section of each questionnaire, retailers were asked to indicate their level of agreement or disagreement with four statements relevant to hypotheses proposed in Chapter 1. These concerned: the question of the "niche" status of the organic market; the proportion of customers who buy organics to be "green"; the influence of the media on the demand for organics, and the current level of chemicals employed by conventional growers. For each question, respondents indicated their level of agreement or disagreement by circling a number from 1 ("*strongly agree*") to 5 ("*strongly disagree*"). This different format of response was employed to help sustain respondents' interest throughout the final stage of the questionnaire. The following sections describe the results of these questions.

4.22 Retailers' View of the Organic Market as a Niche Market

Much debate has surrounded the issue of the status of the organic market as a niche market. Some authors consider that organics have the potential to appeal to all consumers, while others are of the opinion that interest in organics is confined to affluent or particularly committed sections of the public. In the current research, it has been suggested that organic retailers' opinions of the status and potential of the market will vary according to their types of operation and customer bases. Their views of the "niche" status of the organic market were investigated by presenting them with the following statement: "*The market for organic produce is a niche market - that is, organics can only appeal to a specialised section of the public*". The statement contained a brief description of what was meant by the term niche to avoid confusing respondents. Responses are presented in Figure 4.18.

Figure 4.18 The extent to which retailers agree or disagree that the organic market is a "niche" market

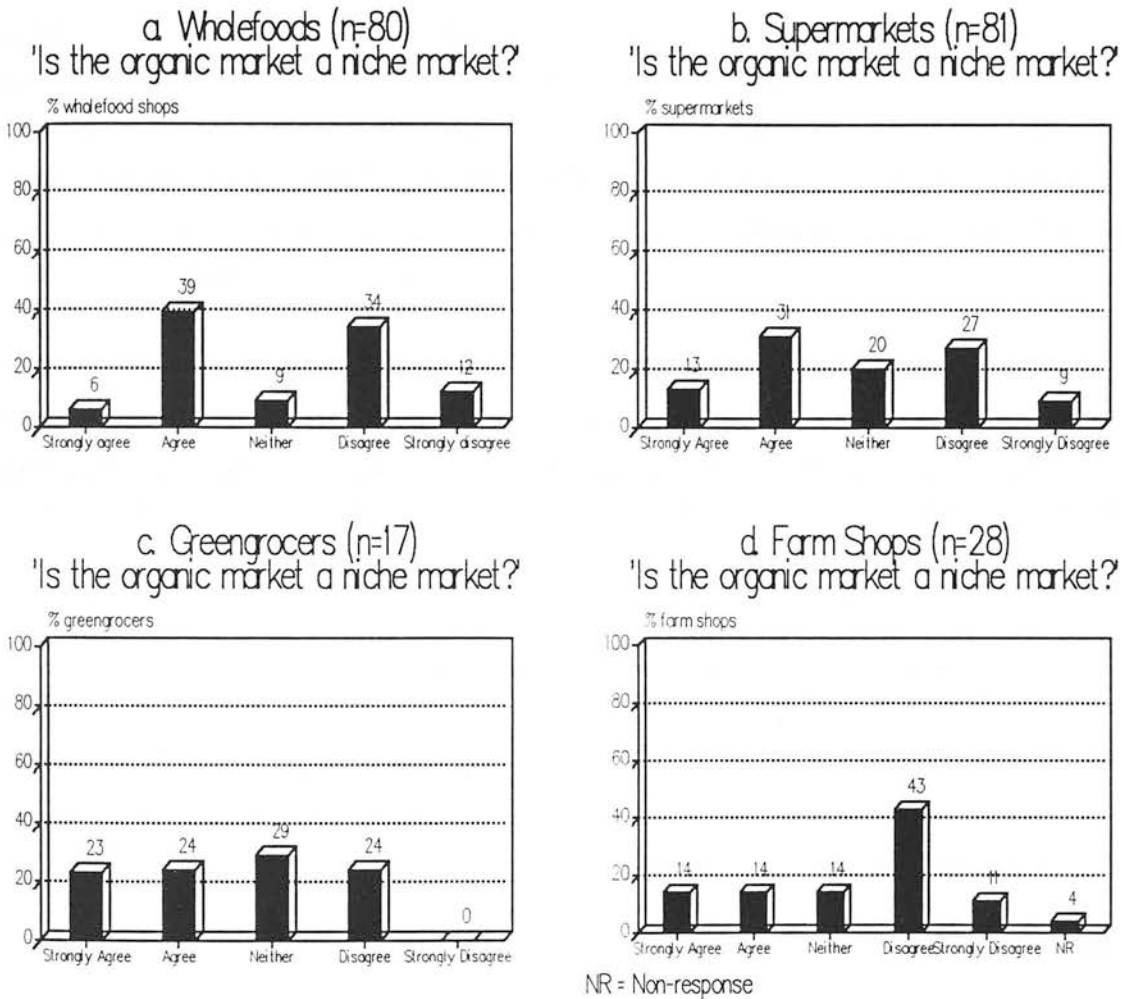


Figure 4.18 shows that in general, retailers were divided on the question of organics as a niche market, the only exception being farm shops, the majority of whom disagreed with the statement (Figure 4.18d). Proportions of wholefood shop and supermarket respondents who agreed or disagreed that the organic market is a niche market were strikingly similar (Figures 4.18a and 4.18b), while nearly a third of greengrocers proved to be undecided as to the market's status (Figure 4.18c). Also of note was the relatively small proportions of retailers who felt strongly that the organic market is or is not a niche market. The exception was provided by greengrocer respondents, nearly a quarter of whom strongly agreed with the statement. This result is consistent with the wide customer base of greengrocers, and with the theory that this retailer type harbours an uncommitted attitude towards organics.

4.22.1 Niche Market: the Views of Wholefood Shops and Supermarkets

The disparity between wholefood shop and supermarket responses was important to test because of their different customer bases: it was proposed in Chapter 1 that supermarkets, having a more broad-based clientele in comparison to wholefood shops, were more likely to perceive the organic market as a niche market. To test this, their responses to the status of the organic market were compared by chi-squared analysis. The response categories "strongly agree" and "agree" were combined, as were the responses "strongly disagree" and "disagree", to ensure a valid chi-squared test (Table 4.17).

Table 4.17 The distribution of wholefood shops and supermarkets according to their level of agreement or disagreement with the statement "The organic market is a niche market"

Opinion	Supermarkets	Wholefood Shops	Total
Agree	35	36	71
Neither	16	7	23
Disagree	29	37	66
Total	80	80	159

Chi-squared = 4.506 with 2 degrees of freedom, obtained value does not exceed critical value beyond the level .05

As the distribution of supermarket and wholefood shop responses in Table 4.17 is quite even, a significant discrepancy between the two appears unlikely. This suspicion is confirmed by the result of the chi-squared test, which proved that no significant difference existed between wholefood shop and supermarket views of the niche market status of the organic market.

4.23 Retailers' Reactions to the Number of "Green" Organic Buyers

The second statement which retailers were asked to consider was as follows: "*The majority of people buy organic to be green*". Earlier in the questionnaire, retailers had been asked to rate the importance of environmental concern as a buying motivation in relation to other factors. Here, respondents were asked to consider alone the prevalence of "green" organic purchases (Table 4.18). Results showed some disparity between supermarket and wholefood shop responses: while half the supermarket respondents agreed that the majority of buyers do purchase to be green, only 20% of wholefood shops were in accordance with this view. This result is interesting given the hypothesis that supermarket customers are **less** likely to buy organic to be green compared with wholefood shop customers. To discover whether the disparity here was indeed significant, supermarkets' (column 1) and wholefood shops' (column 2) responses were combined into three categories ("*agree*", "*neutral*", "*disagree*"), and a chi-squared analysis was undertaken.

Table 4.18 *The distribution of supermarkets and wholefood shops according to their reaction to the statement "The majority of people buy organic to be green"*

Reaction	Supermarkets (1)	Wholefoods (2)	Grocer	Farms	Total
S Agree*	9	5	4	2	20
Agree	32	17	4	7	60
Neutral	19	22	5	11	57
Disagree	17	38	4	7	66
S Disagree**	3	3	0	1	7
Total	80	80	17	28	210

* Strongly Agree

** Strongly Disagree

The chi-squared value obtained from analysis of columns 1 and 2 (using the three combined categories described above) of Table 4.18 was 16.783 with two degrees of freedom. This value exceeds the critical value of chi-squared with $P > .001$, and means that there was only a 1% probability that the distribution of responses in Table 4.18 was attributable to chance. Therefore, it may be assumed that significantly more supermarkets than wholefood shops agreed that the majority of people buy organic to be "green".

4.24 The Influence of the Media on the Organic Market

The degree of media attention paid to food health and food safety has been instrumental in encouraging the growth of the organic market (Boyle *et al* 1991). However the degree to which this is recognised by the industry itself is unclear, and to investigate this, respondents were asked to indicate their agreement or disagreement with the following statement: "*Widespread media attention given to food safety has a direct influence on the demand for organics*". A direct association was specified in order to distinguish bold views from casual opinions. Results are presented in Figure 4.19.

Figure 4.19 Retailers' agreement or disagreement that media attention paid to food safety has a direct influence on the demand for organics

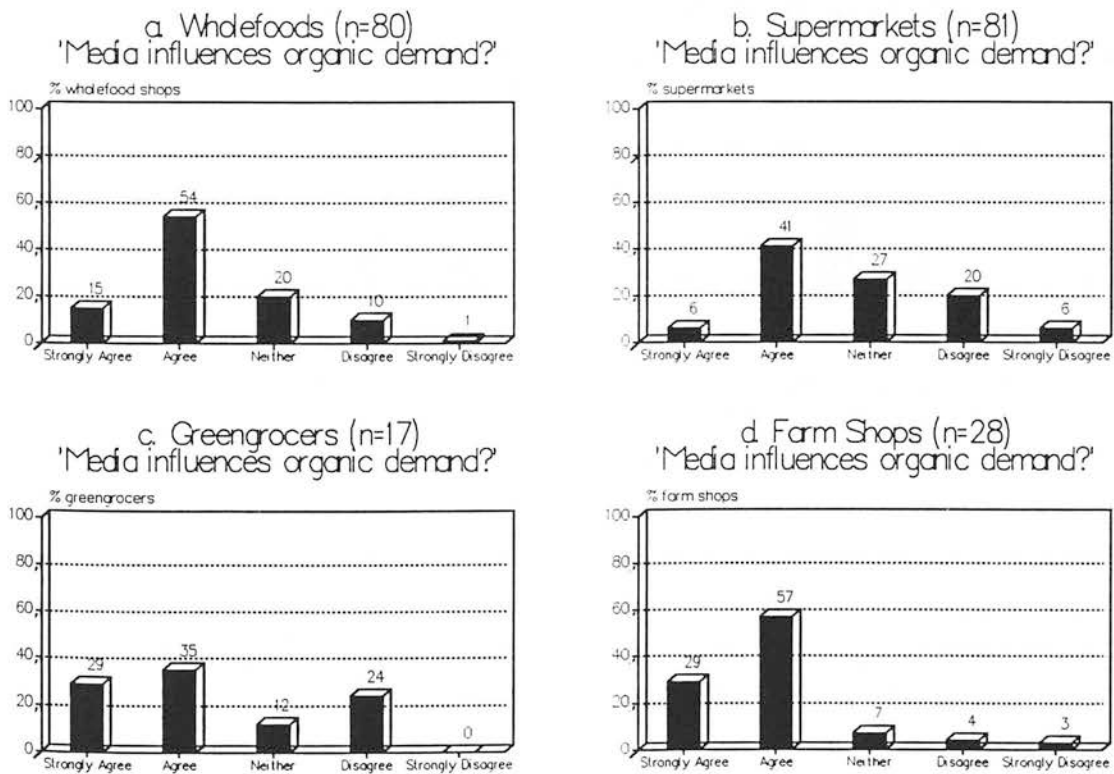
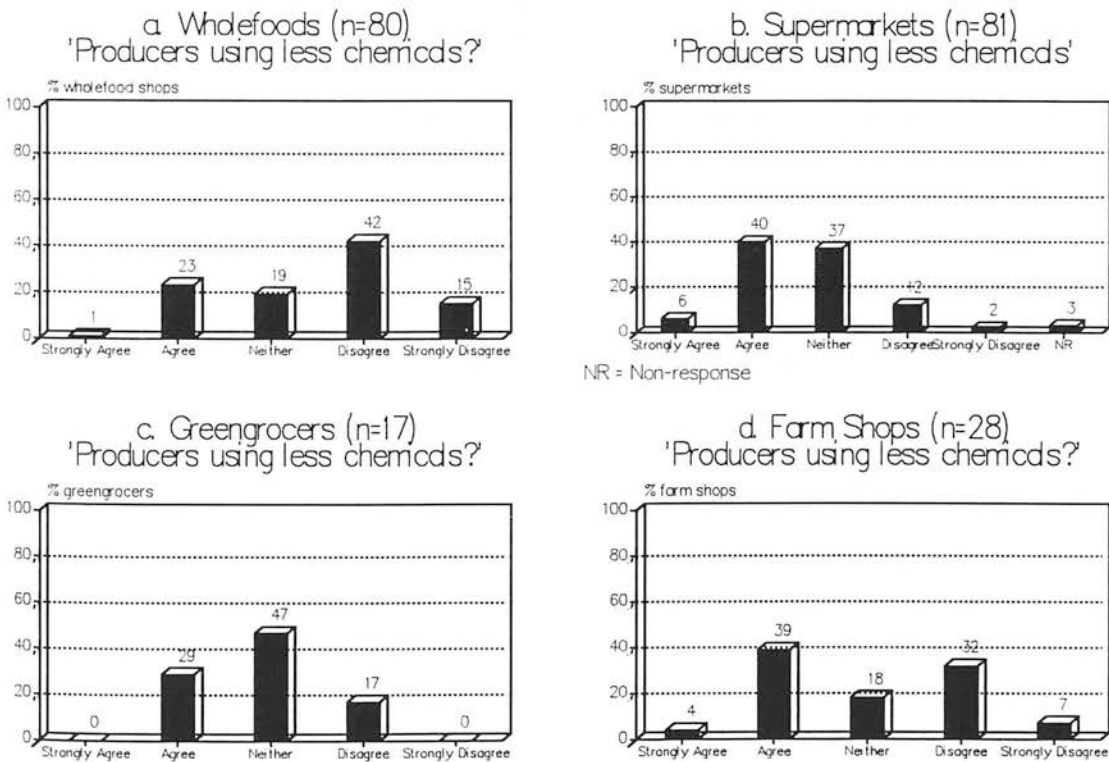


Figure 4.19 shows that the greatest proportion of all retailers at least agreed that certain types of media attention have a direct influence on the demand for organics. (Figures 4.19a, 4.19c and 4.19d). A correspondingly small proportion of all retailers disagreed that the demand for organics is influenced by the media.

4.25 The Level of Artificial Chemicals used in Conventional Cultivation

In Chapter 1 it was proposed that the different backgrounds of organic retailers would influence their views of the conventional and organic markets, and the level of artificial chemicals used in non-organic cultivation is a particularly contentious issue. Although some evidence suggests conventional farmers are reducing the amount of artificial chemicals they use (Erichman 1992), the views of different organic retailers as to this issue are unclear. To investigate these, respondents were asked to show their degree of accordance with the statement: "In general, producers are using less artificial chemicals on conventional produce today." Their responses are shown in Figure 4.20.

Figure 4.20 The degree of organic retailers' agreement that conventional growers are now using less chemicals during cultivation



Comparison between the diagrams of Figure 4.20 reveals that of all the retailer types, wholefood shops appeared to be the most sceptical about the chemical inputs of conventional growers: over half of respondents disagreed that non-organic producers are using less chemicals during cultivation (Figure 4.20a). In contrast, supermarkets and farm shops returned a more positive result as just under half of each agreed with the statement (Figures 4.20b and 4.20d).

4.25.1 *Wholefood Shops & Supermarkets: Level of Artificial Chemicals?*

The cynicism of wholefood shops as to the methods of conventional producers has been demonstrated: what is of interest however, is the comparison of their views with those of a retailer group whose total stock of fresh produce is largely comprised of conventionally grown fruit and vegetables. To do this, a chi-squared test was undertaken on wholefood shops' and supermarkets' levels of agreement or disagreement with the statement "Conventional producers are using less artificial chemicals today" (Table 4.19). To ensure a valid result from the chi-squared test, the responses "strongly agree" and "agree" were combined into one category and "strongly disagree" and "disagree" were combined into another

Table 4.19 *The distribution of wholefood shops and supermarkets according to their reaction to the statement "In general, producers are using less artificial chemicals on conventional produce today"*

Reaction	Wholefood Shops	Supermarkets	Total
Agree	19	37	56
Neither	15	30	45
Disagree	46	12	58
Total	80	79	159

It can be seen from Table 4.19 that a greater proportion of wholefood shops than supermarkets disagreed that conventional producers are using less chemicals today. In addition, the chi-squared statistic obtained exceeds the critical value of chi-squared with $P > .001$. Thus, it may be assumed that a significantly greater number of wholefood shops than supermarkets disagreed that conventional producers use less chemicals on their produce today.

SECTION II

General Public Survey Results

The following section lists, question by question, the results of the survey of the Edinburgh and Lothian District general public. This section begins with a discussion of the response rate achieved and gives the ratio of organic buyers to non-buyers found in the sample. A demographic breakdown of the sample is also provided at the beginning of this section. Throughout the description of results, additional and relevant comments made by respondents have been included where appropriate.

4.26 Response Rate

In total, 242 calls were made as part of the telephone survey of the Edinburgh and Lothian general public. This resulted in 152 completed interviews (a 63% response rate), 31 outright refusals (13%) and 25 unobtainable numbers. Pre-testing of the questionnaire's complexity and length proved worthwhile as once initial cooperation had been obtained from the respondents, all the ensuing interviews were completed. During interviews, respondents generally gave full answers and useful additional comments while remaining candid in their views. While the majority of respondents (62%) were female and nearly a third were retired, analysis of census data for the Lothian district suggests the basic demographic breakdown of this sample of the population is not unrepresentative. The demographic breakdown of respondents who refused to be interviewed, as far as this could be undertaken, was not influenced either by gender or by socio-economic area (which was determined by the respondent's postcode). Neither was the rate of refusals influenced by the time of day at which the calls were made.

4.27 Ratio of Organic Buyers to Non-buyers

A principal objective of the general public survey was to show the ratio of organic buyers to non-buyers in a sample of the Edinburgh and Lothian general public. If they had claimed to be aware of the term, respondents were asked: "*Have you ever bought any organic food?*" (Figure 4.21). The categories of response were carefully chosen prior to data collection: "*organic buyers*" were confined to respondents who considered themselves to be current buyers, even if their purchase rate was very infrequent. Respondents who used to buy organics but claimed to be non-buyers at the time of interview were included in the "*non-buyers*" category, as were those who claimed to grow their own organics but did not buy the produce in retail outlets. This distinction was made because of the high level of statistical analysis to be undertaken on this data: it was crucial to include only current, shop-purchasing buyers in the organic buyer category.

Figure 4.21 The number of organic buyers and non-buyers among respondents to the general public survey (n=152)

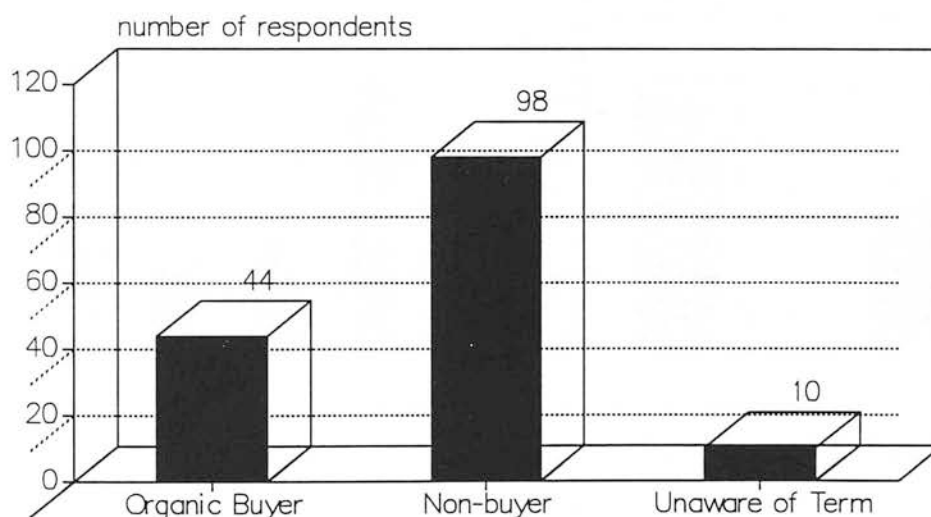
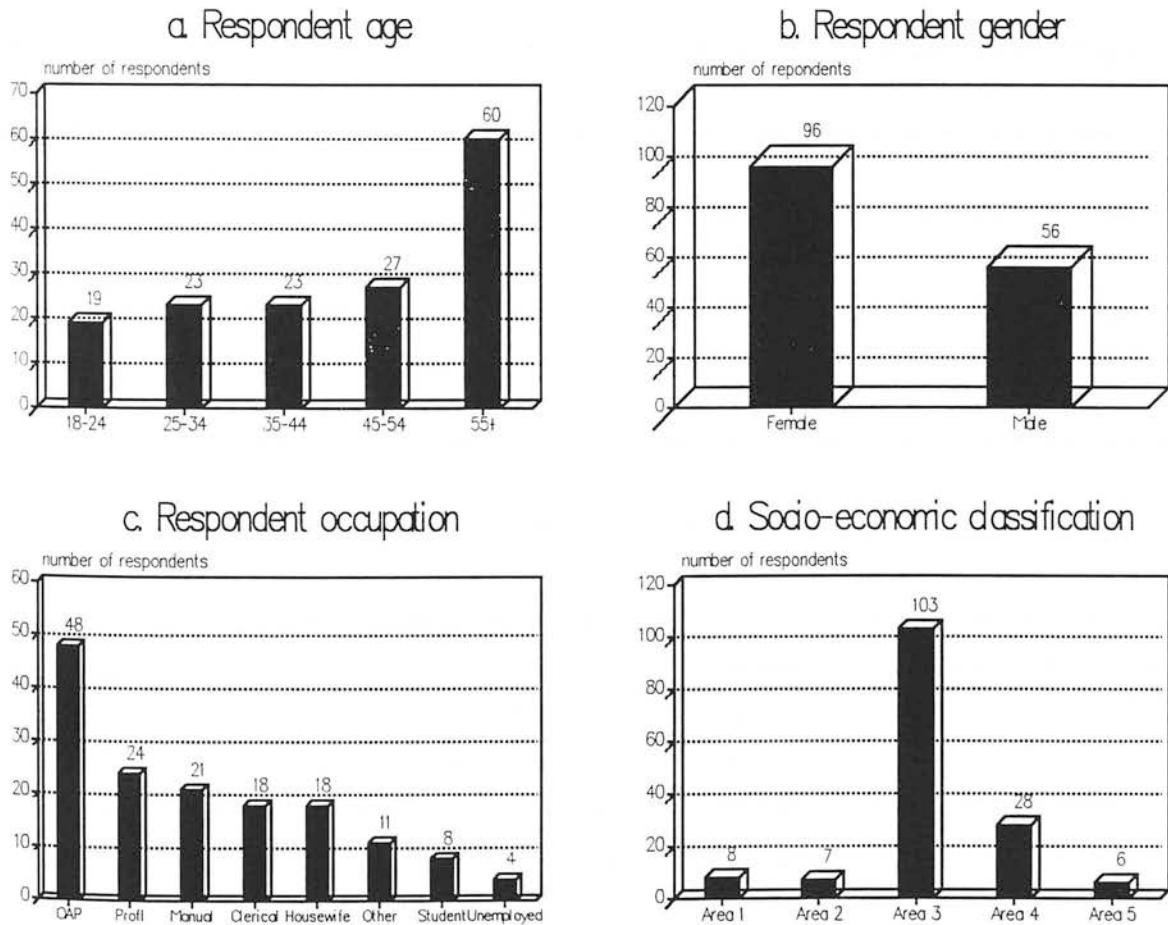


Figure 4.21 shows that 44 out of 152 respondents (29%) claimed to buy organics at least occasionally from a shop, while 98 (64%) proved to be non-buyers either by claiming that they had never bought organic or no longer bought organics from a shop (n=4). In total, 10 respondents were unaware of the term organic: this number included those who were later unable to define "organic", yet had claimed to have been aware of the term for at least five years (n=6).

4.28 Demographic Breakdown of General Public Sample

Several attempts have been made by previous studies (eg Mintel 1991) to link an individual's age, gender, socio-economic category and occupation with a propensity to buy organic. The recording of such parameters served two functions in this study. First, it gave an indication of the demographic representativeness of the population sample surveyed, and comparison with the 1981 census data for the Lothian District showed that the sample is representative of the population according to the measurable parameters: age, gender and occupation. Secondly, the record also allowed the analysis of organic buyers and non-buyers according to the different demographic sub-groupings listed above. Figures 4.22a to 4.22d show the demographic breakdown of the sample by age, gender, occupation and socio-economic category respectively. A fuller description of the data and categories shown in Figures 4.22a to 4.22d is given in the following four sections, which link respondents' demographic characteristics to their status as an organic buyer or non-buyer.

Figure 4.22 Demographic characteristics of general public survey respondents (n=152).



4.28.1 Organic Purchase and Age

Age categories were selected prior to data collection. The minimum age of eighteen was chosen because it was deemed to be the age at which most people gain an independent income. Fifty-five was chosen as the minimum age of the oldest category because the majority of people are at least conscious about retirement by this age, with implications for their purchasing behaviour. Intervening age categories of ten years were chosen to be consistent with standard marketing research practice (Tull and Hawkins 1987). Respondents were asked directly to give their age and Figure 4.22a shows that the majority ($n=60$) were over the age of 55, while the remaining respondents were spread reasonably evenly across the rest of the age categories. It was desired to find the proportion of organic buyers falling within each age category and to test whether a greater proportion of organic buyers fell within one category than another (Table 4.20).

Table 4.20 *The distribution of general public respondents according to their age and whether or not they were organic purchasers.*

Purchaser	18-24	25-34	35-44	45-54	55+	Total
Buyers	4	10	6	11	11	44
Non-Buyers*	15	13	17	16	44	108
Total	19	23	23	27	59	152

* Includes respondents who claimed to be unaware of the term organic

Table 4.20 shows that the greatest proportion of organic buyers ($n=10$) was found among the 25-34 age group. To test whether the distribution of responses here was significant, a chi-squared test was undertaken, combining the categories "18-24" and "25-34" into one category and "35-44", "45-54" and "55+" into another. It was felt that the splitting of categories in this way best distinguished younger respondents from older ones in terms of purchasing behaviour. The test gave the statistic .407 with one degree of freedom, which does not exceed the critical value for chi-squared with $P > .05$. Thus, it may not be assumed that the organic buyers in the general public survey were significantly more likely to belong to a younger age category than an older one.

4.28.2 Organic Purchase and Gender of Respondent

It has often been assumed that organic purchasers are more likely to be female, probably in view of the strong influence that females have on the food-buying decisions of a family or a couple. In this survey, gender was recorded by the interviewer and as Figure 4.22b shows, the majority of respondents ($n=96$) were female. To test whether females were indeed more likely to be organic purchasers, respondents' gender was tabulated against their status as an organic buyer or non-buyer (Table 4.21).

Table 4.21 *The distribution of general public respondents according to their gender and whether or not they claimed to be an organic buyer*

Purchaser	Male	Female	Total
Buyer	12	32	44
Non-buyers	44	64	108
Total	56	96	152

Table 4.21 shows that a slightly greater proportion of all female respondents were organic buyers than were male respondents. However, a chi-squared test undertaken on this data gave the value 2.437 with one degree of freedom, a result which is not significant with $P > .05$. It may **not** be assumed therefore, that the female respondents in the general public survey were significantly more likely to be organic buyers than were the male respondents.

4.28.3 Organic Purchase and Respondent Occupation

Organic purchase has often been linked to "professional" or relatively highly-paid occupations. Not only do these occupations imply a high level of disposable income, there is also the implication that people with such occupations are the "reference group" for their generation: they are particularly open to and adoptive of new ideas which are then disseminated throughout the remaining sections of the public (Baker 1986). Occupational categories were created after data collection. "Professional" respondents included the traditional professions as well as middle to high managers in industry. "Clerical" occupations included secretarial and administrative posts, while "Manual" encapsulated all manual trades and engineers. As Figure 4.22c shows, the majority of general public respondents were OAPs (n=48), while "Professionals" constituted the second highest number of respondents (24). The total of unemployed interviewees came to four. To test whether a significant proportion of organic buyers was to be found among one of these categories, respondents were tabulated according to their occupational category and whether or not they were organic buyers.

Table 4.22 *The distribution of general public respondents according to their occupational category and organic purchase.*

Occupational Category	Buyer	Non-buyer	Total
Professional/Clerical	20	23	43
Manual	3	18	21
Housewife	5	13	18
OAP	10	38	48
Total	38	92	130

Table 4.22 shows that nearly half of professional or clerical respondents were organic buyers, compared to only 14% of manual respondents. A chi-squared test undertaken on this data (10.129 with three degrees of freedom) exceeds the critical value of chi-squared with $P > .02$. Consequently, it may be assumed that a significantly large proportion of professional and clerical respondents were organic buyers.

4.28.4 Organic Purchase and Socio-economic Grouping

In order to calculate the socio-economic grouping of general public respondents, the area postcode of each respondent was taken and matched to one of the twenty-eight areas delineated by the 1981 census for the Lothian District. For each area, the census gave the percentage of the population falling into five socio-economic categories, and according to the how the population was distributed across these, each area was then assigned a code from "1" to "5" for the purposes of this research (Figure 4.22d). Thus, as the census showed that the majority of the population in the Linlithgow area was spread across the upper three socio-economic categories, general public respondents whose addresses showed a Linlithgow postcode were assigned the area code "1". This method was undertaken for all respondents, however two restrictions should be recognised when interpreting the results. First, the most recent census data available was that of 1981 and evidently demographic changes have taken place since then. Secondly, the census did not delineate areas falling within Edinburgh city boundaries, thus respondents with Edinburgh city postcodes were assigned the same area code "3", despite the existence of different socio-economic districts within the city. This restriction led to the large number of respondents with the area code "3" (Figure 4.22d). In order to test whether organic buyers were more likely to belong to the upper socio-economic grouping, respondents' area codes were set against their status as an organic buyer or non-buyer (Table 4.23).

Table 4.23 *Proportion of buyers to non-buyers in the general public survey according to socio-economic category*

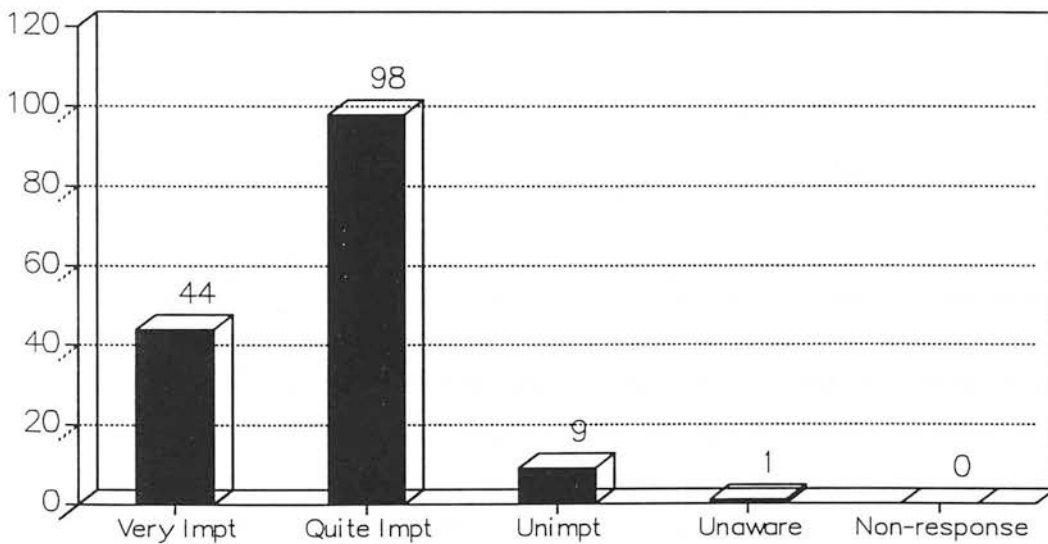
Socio-Economic Category	Buyer	Non-buyer	Total
1/2/3	36	83	119
4/5	8	25	33
Total	44	108	152

The chi-squared value obtained from this data set was 0.454 with 1 degree of freedom, which is **not** significant with $P > .05$, thus it may not be assumed that organic buyers in this survey were significantly more likely to belong to one of the upper three socio-economic categories.

4.29 The Importance of Green Issues

To encourage a high response rate and promote high-value interviews, it was important that the initial question posed to general public respondents be of general interest and easy to answer. Therefore, all respondents were first asked: "How important to you are so-called 'green' issues?". This question was of importance to the research because of the proposal that to many people, organics carry a green message. To ascertain the level of interest in organics therefore, it is crucial to investigate the level of interest in green issues. Respondents were prompted with the replies "very important", "quite important" and "unimportant", thus the register of the opening question was kept simple. No explanation of "green issues" was provided in order to measure the basic level of awareness of the term amongst the public: therefore, respondents who required an explanation were considered to be unaware of the term (Figure 4.23).

Figure 4.23 The importance accorded to green issues by general public survey respondents (n=152)



It can be seen from Figure 4.23 that one respondent demonstrated outright lack of awareness of the term, although subsequent questions revealed a further three respondents who had misunderstood what was meant by "green" issues. Of the remaining respondents, the majority (98 out of 152) believed green issues to be quite important, and indeed only 9 considered them to be unimportant. As part of this study, it was desired to test whether a link existed between the expression of interest in green issues and the disposition to purchase organics. The following section discusses this test.

4.29.1 Importance of Green Issues and Organic Purchase

One hypothesis has proposed that organic purchasers are more likely to take an interest in green issues than are non-purchasers. To test this, respondents' ratings of the importance of green issues were set against whether or not they later claimed to purchase organics (Table 4.24). Chi-squared analysis was then undertaken.

Table 4.24 The distribution of general public respondents by the level of importance accorded to green issues and their status as organic buyers or non-buyers

Importance Level	Buyers	Non-buyers	Total
Very important	18	26	44
Quite important	25	73	98
Unimportant	1	9	10
Total	44	108	152

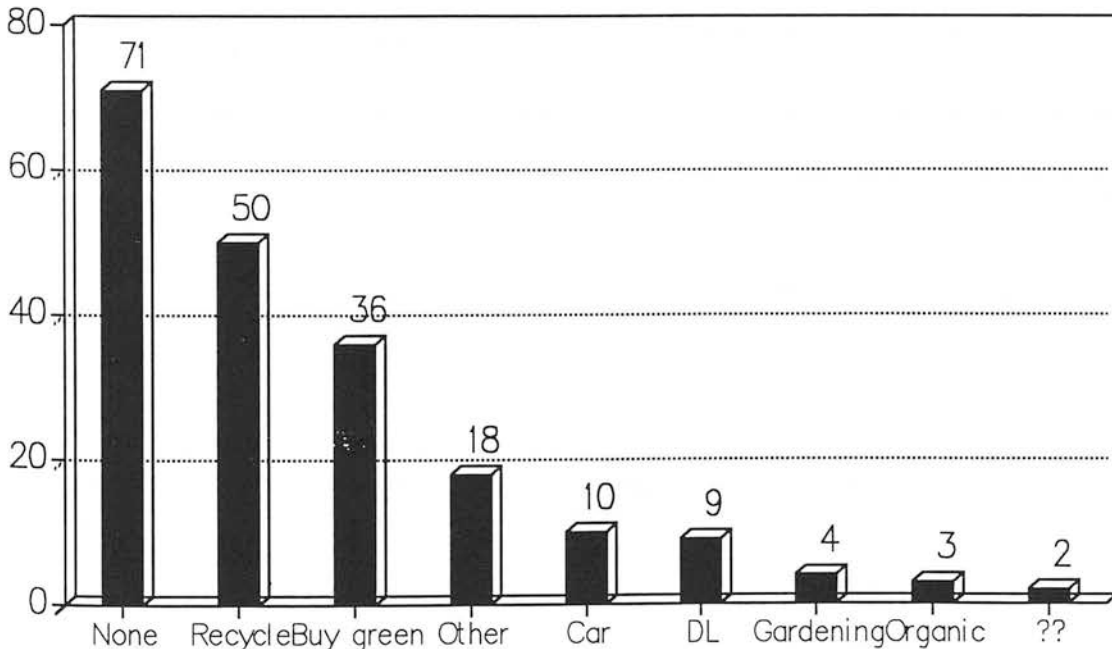
Chi-squared = 5.369 with 2 degrees of freedom, not significant with $P > .05$

It can be seen from Table 4.24 that a greater proportion of organic buyers claimed that green issues were "*very important*" compared to non-buyers, and that a smaller proportion of buyers claimed green issues were "*unimportant*" in comparison to non-buyers. As the chi-squared value is not significant with $P > .05$ it cannot be assumed that the variations in the distribution of responses above were significant. Therefore, respondents according a high level of importance to green issues were **not** significantly more likely to be organic buyers.

4.30 The Habitual Undertaking of Green Activities

In designing this survey, it was recognised that the telephone interview method of data collection used may have provoked respondents to accord importance to green issues when in reality their interest in the subject was minimal. To avoid this type of positive bias, respondents who considered green issues to be "very" or "quite" important were asked the following question: "Do you do anything in your day-to-day life as a result of your concern for the environment?" (Figure 4.24). The question was left open-ended because it was felt that those with a minimal interest in green issues would be unable or disinclined to think of activities spontaneously, giving an accurate distinction between nominally and actively concerned respondents. To assist recording of responses, three categories of activity were created prior to data collection: these were "Car related", which included those who claimed to use their car less in addition to those using a catalytic convertor or unleaded fuel; "Buy green", which represented those who named environment-friendly household products; and "Recycle" which included respondents who saved or recycled otherwise disposable materials.

Figure 4.24 The types of green activity undertaken habitually by general public respondents (n=144)



DL=Don't litter ?? = Misunderstood green

As can be seen from Figure 4.24, the most commonly undertaken green activities were the purchase of environmentally friendly products and the recycling of materials. In addition, a number of unforeseen responses were given, two categories of which reflected misunderstanding of the term green: these were the categories "Gardening" (a typical comment was "I do a lot of gardening"), and "Don't litter". Three individuals mentioned organics in the response to this question, either in the context of their shopping purchases or gardening methods. While the majority were able to name at least one action they undertook for the environment (and many listed two or three), 71 out of 152 respondents were unable to nominate any activity despite previously claiming to find green issues at least quite important.

4.30.1 Links Between Organic Purchase and Green Activities

In the previous question, respondents were asked to name their "green activities" because it was felt that these provide a more faithful reflection of people's interest in green issues. It was then decided to discover if a relation existed between whether an individual undertook green activities and whether or not he or she was an organic purchaser. A chi-squared test was undertaken to determine this (Table 4.25).

Table 4.25 Distribution of general public survey respondents according to whether or not they undertook at least one green activity and whether or not they were organic buyers

Activities?	Buyer	Non-buyer	Total
Yes	33	45	78
No	11	60	71
Total	44	105	149

Chi-squared = 12.842 with 1 degree of freedom, significant with $P > .001$.

The significance of the result of a chi-squared test here allows the assumption that a significantly greater proportion of organic buyers undertook green activities compared with non-buyers.

4.30.2 Nominal and Active Interest in Green Issues

Comparison between the results illustrated by Figure 4.24 (which show the number of respondents who undertook at least one green activity) and those illustrated by Figure 4.23 (which show the number of people who deemed green issues to be at least "quite" important) raises an interesting question. While 94% of the general public respondents claimed green issues were at least quite important to them (and nearly a third asserted they were "very" important), nearly half of all respondents went on to claim they undertook no green activities. It is clear that a proportion of respondents deemed green issues to be very important yet failed to name one habitual activity undertaken as a result of their concern. To discover whether this disparity between claim and action was significant, responses to the question of green importance were set against those to green activities (Table 4.26)

Table 4.26 *The distribution of general public respondents according to the degree of importance they accorded to green issues and to whether or not they undertook green activities*

Importance?	Activities	No Activities	Total
Very Important	26	18	44
Quite important	54	44	98
Unimportant	0	10	10
Total	80	71	152

Chi-squared = 12.087 with 2 degrees of freedom, not significant with $P > .05$

Table 4.26 shows that while the majority of respondents (26) who deemed green issues to be very important **did** undertake green activities, one quarter of those who undertook nothing claimed, paradoxically, that green issues were very important to them. Nevertheless, the chi-squared value obtained from the data set above, indicated that the proportion of respondents undertaking no green activities but claiming green issues to be "quite" or "very" important was **not** significant.

4.31 Ethically Motivated Avoidance of Foods

Results of previous studies have suggested that organic buyers are more conscious of where their food has come from and are concerned about the processes involved (Tate 1991). As a result, while many consumer surveys combine concern for the environment with ethical concern, ethically-motivated avoidance is treated separately here. Evidence also suggests that it is an enduring issue in the food purchase decision, distinct from other issues (Ross 1990). Not only is it crucial to investigate the importance of ethical concern to the public in relation to the importance they accord to green and health issues, this research also proposes a link between the inclination to buy organics and the propensity to avoid certain foodstuffs for reasons of moral or ethical concern. Respondents were asked therefore: "*Do you avoid any food for moral or ethical reasons?*" (Figure 4.25). The categories of "*veal*" and "*battery chickens*" (believed to represent foods widely associated with ethical concern), were created before data collection to ease the recording of responses. When asked however, the question was left open-ended.

Figure 4.25 Foods avoided for moral or ethical reasons (n=152)

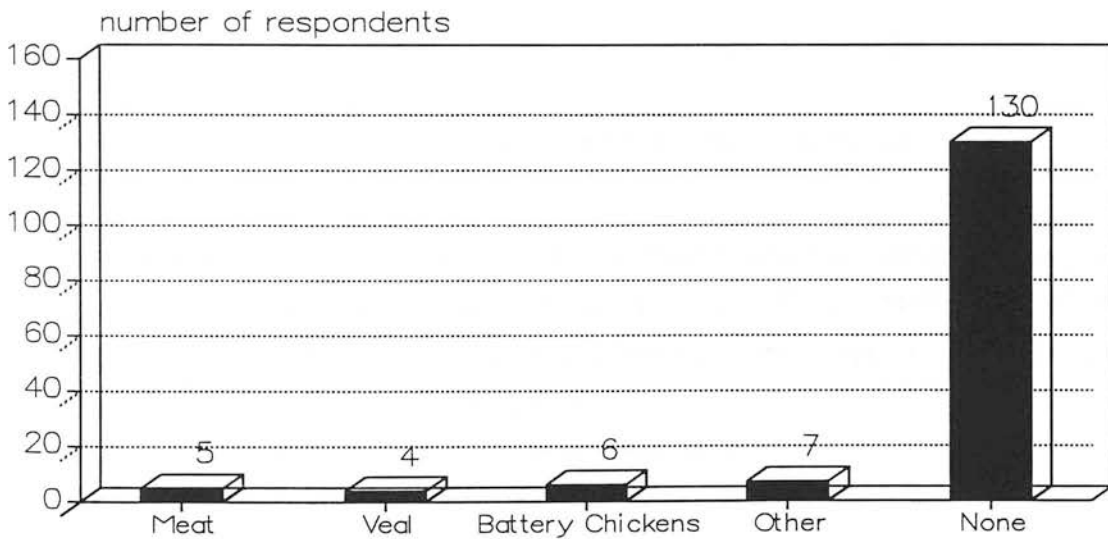


Figure 4.25 shows that the single most commonly avoided food items were those anticipated: battery-farmed chickens (for meat and eggs) and veal. While five individuals claimed to avoid meat altogether, some respondents showed misunderstanding of the terms moral and ethical with replies of "*red meat*" and "*fatty foods*". Such responses were recorded under "*none avoided*". The overwhelming majority of respondents failed to nominate one type of food they avoided for ethical reasons, in contrast to reports which suggest that the public is actively concerned about moral issues associated with food production.

4.31.1 Ethical Avoidance of Foods and Organic Purchase

McGregor *et al* (1990) assert that many organic buyers demonstrate concern for animal welfare and related issues. In this study, general public survey data was tested for the existence of a link between organic purchase and the avoidance of foods for ethical reasons. To do this, responses to the question of ethical avoidance were related to the respondents' later response to the question of organic purchase (Table 4.27).

Table 4.27 *The distribution of general public respondents by their avoidance of foodstuffs for ethical or moral reasons and whether or not they claimed to be organic buyers*

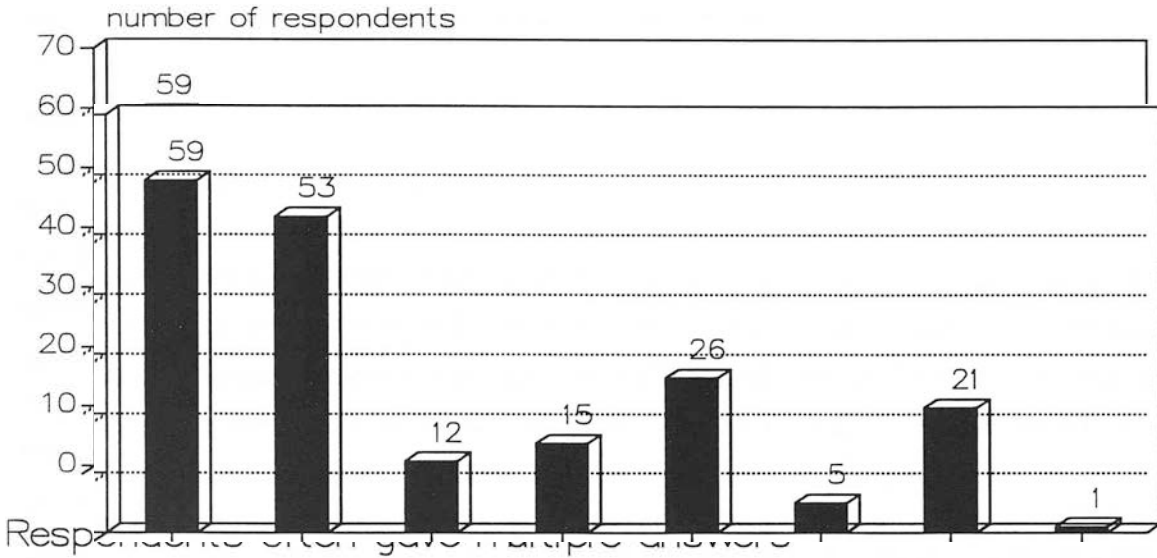
Ethical Avoidance?	Buyers	Non-buyers	Total
Yes	3	7	60
No	41	100	141
Total	44	107	151

Chi-squared = 0.004 with 1 degree of freedom, not significant with $P > .05$

It can be seen from this table that the proportion of "ethical avoiders" among organic buyers (6%) is identical to that of non-buyers, and in contrast to the findings of McGregor *et al* 1990, chi-squared analysis proves that no significant link may be assumed between organic purchase and the inclination to avoid foods for ethical reasons.

4.32 Health Motivated Avoidance of Foods

One hypothesis of this research proposed that organic buyers were likely to be more aware of current thinking in the field of nutrition and health, and that this would be reflected in their general food buying behaviour. As much nutritional advice is oriented towards the type of foods which should be consumed less, it was considered appropriate to investigate the foods which people chose **not** to buy. Respondents were therefore asked: "*Is there any type of food you now avoid buying because you consider it harmful to your health?*" (Figure 4.26).

Figure 4.26 Foods avoided for reasons of health (n=152)

The question of health avoidance generated a greater number of positive responses than questions pertaining to green issues and ethical avoidance: only 59 respondents were unable to name any food they avoided for health reasons. Of the positive responses, Figure 4.26 shows that the most commonly-cited foods were those which have been the subject of fairly wide and recent media attention (red meat and foods with a high fat content). To test the hypothesis linking organic purchase with health-motivated avoidance of foods, general public respondents were categorised first by their claim to be organic buyers or non-buyers, secondly according to whether or not they mentioned at least one foodstuff they avoided for health reasons. Table 4.28 displays this data.

Table 4.28 *The distribution of general public respondents by their responses to organic purchase and to whether or not they avoided at least one food for health reasons*

<u>Health Avoidance?</u>	<u>Buyers</u>	<u>Non-buyers</u>	<u>Total</u>
Yes	28	64	92
No	16	44	60
Total	44	108	152

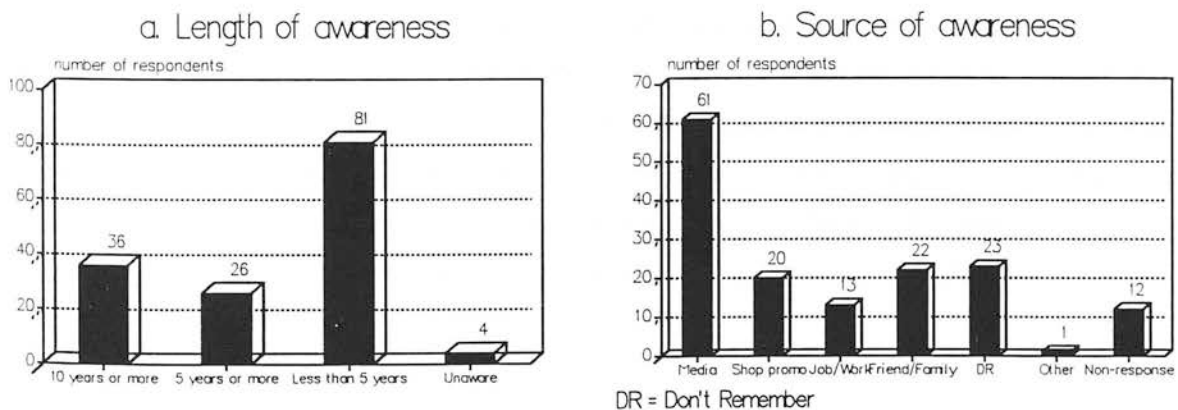
Chi-squared = .251 with 1 degree of freedom, not significant with $P > .05$

It can be seen from Table 4.28 that a slightly larger proportion of organic buyers (63%) avoided at least one food for health reasons compared to non-buyers (59%). However, chi-squared analysis proves this discrepancy is not significant, thus it cannot be assumed that organic buyers were significantly more likely to avoid foods for health reasons.

4.33 Awareness of the term Organic

Previous studies have found different levels of awareness of the term organic amongst the public (Wilkins and Hillers 1990, Mintel 1991). The current research has proposed a correlation between the length and source of organic awareness possessed by an individual: namely, that those who have become aware of organics through "personal" means (friend, family or job) are more likely to have been aware of the term longer than those who have become aware through "impersonal" means (the media or a shop promotion). In the general public survey therefore, not only were respondents asked to estimate how long they had been aware of the term organic (Figure 4.27), but also to indicate the source of their awareness (Figure 4.27).

Figure 4.27 The length and source of awareness of the term organic claimed by general public respondents (n=152)



It can be seen from Figure 4.27a that the majority of respondents (81) claimed to have been aware of organics for less than five years. Five years is an important watershed because this time represents the point at which the organic "media boom" period commenced, bringing organic awareness to the mainstream consumer. Figure 4.27a also shows that only four respondents claimed outright to be unaware of the term "organic", although a further fifteen demonstrated lack of awareness by giving an unsatisfactory definition of organic later in the questionnaire. Meanwhile, Figure 4.27b shows that the majority of respondents (61) claimed to have become aware of the term through the media or a shop promotion (20), rather than via "personal" means. To test whether the length of the respondents' organic awareness was related to the source of that awareness, responses to length of awareness were tabulated against those to source of awareness and the data were tested by use of the Gamma statistic G (Appendix 5). This test is a non-parametric method of analysis appropriate for measuring the relation between two ordinally-scaled variables such as source and length of awareness of a product (Siegel and Castellan 1988). The result showed a significant level of association (with $P > .01$) between the two variables: that is, the longer a respondent had known about organics, the more likely it was that he or she had become aware of the term through "personal" means.

4.34 Place and Rate of Purchase

The rate at which some types of product are purchased may indicate the degree of commitment felt by the purchaser (Baker 1986). From this came the proposal that wholefood shop organic buyers, being a section of the public favourably disposed towards organics, were more committed and therefore more frequent buyers of organics than either supermarket or greengrocer organic buyers. Here, general public organic buyers were asked to indicate the usual place where they purchased organics, and to estimate the frequency with which they bought organics. The former question generated three main categories of response: "supermarket", "wholefood shop" and "greengrocer", while the rates of purchase fell into five categories (Table 4.29). Respondents who fell into the "one-off" category represented those who claimed initially to be current purchasers.

Table 4.32 *The distribution of general public organic buyers according to their habitual place of purchase and the frequency (rate) at which they purchased (n=41)*

Rate	Supermarket	Wholefood Shop	Greengrocer	Other*
x/p/wk**	0	1	0	0
1/p/wk	1	1	0	0
x/p/mo	0	0	1	0
1/p/mo	21	3	7	2
One-off	4	0	0	0
Total	26	5	8	2

* includes farm shops

** = more than once per week

It can be seen from this diagram that the greatest proportion of supermarket organic buyers (n=25, 96%) purchased organics only once per month or less, while a greater proportion of wholefood shop organic purchasers (n=2, 40%) claimed to buy organics at least once per week. However, the number of wholefood shop organic buyers in this survey was very small, and a chi-squared test undertaken on this data obtained expected frequencies of less than 1.0 for some categories even after combination of these. As the result obtained by such a chi-squared test is generally recognised to be invalid, the relation between organic buyers' rate and place of purchase in the general public survey was not tested by statistical analysis.

4.35 Secondary Place of Organic Purchase

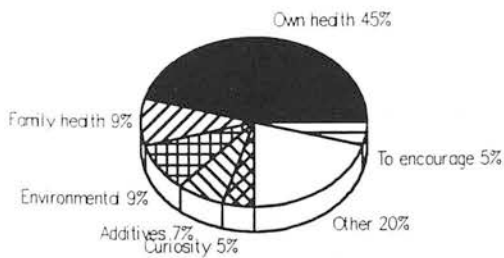
All organic buyer respondents were asked if they ever bought organics from any retail outlet other than the habitual one nominated previously. A surprisingly large proportion (81%) claimed they did not buy organics from any outlet other than their usual one.

4.36 Organic Buying Motivations

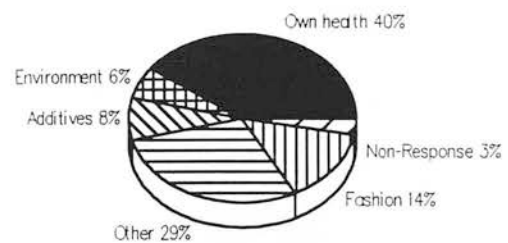
One key objective of the general public survey was to discover the main motivations which drove people to buy organic produce. Consequently, all respondents who indicated that they were current, shop-purchasing organic buyers were asked: "*What is the main reason you have for buying organics?*" The question was left open-ended to obtain the most spontaneous answers, although categories of response were created prior to data collection to assist recording of answers. These categories, chosen in view of the importance accorded to them by previous studies, were: "*concern for own health*", "*concern for family health*", "*taste*" and "*concern for the environment*" (Figure 4.28a). In addition, the remaining respondents who had shown themselves to be organic non-buyers, were asked: "*What, in your opinion, is the main reason why other people buy organics?*" (Figure 4.28b). This question was designed to test Chapter 1's proposal that non-buyers harbour a negative view of the motivations which drive people to buy organics.

Figure 4.28 Organic buyers' views of own buying motivations and non-buyers opinions of the motivations which drive others to buy organic

a. Why buy organic?
General public organic buyers (n=44)



b. Why buy organic?
General public non-buyers (n=98)



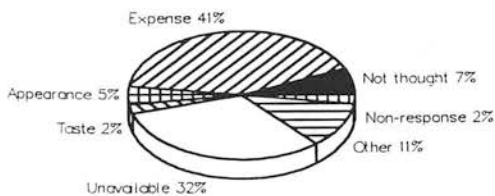
Comparison between Figures 4.28a and 4.28b shows that a certain degree of unanimity existed between buyer's and non-buyers' responses on the importance of health as a buying motivation: 45% of buyers claimed this was the most important reason motivating their purchases and 40% of non-buyers judged health to be the most important reason for others to buy organic. The consensus ended there however: only 14% of non-buyers proposed what could be considered "positive" buying reasons (concern for the environment or concern for additives in food). In addition, 14% of non-buyers either displayed their scepticism towards organic buyers' motivations ("*they're just following fashion*" was a typical comment), while a further 10% were unable to think of any reason as to why people would buy organic. These responses are included in the category "other".

4.37 Reasons for Not Buying Organic Produce

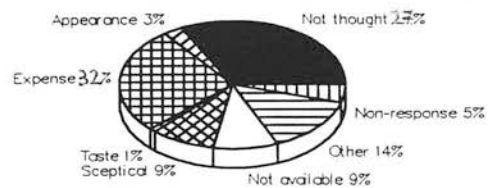
As organic non-buyers comprise the majority of the public (Mintel 1991), investigation of the most important non-buying reasons was crucial. To do this, organic non-buyers were asked the main reason why they did not buy the produce (Figure 4.29b), while buyers were asked to estimate, in their opinion, the main reason motivating others to avoid purchasing organics (Figure 4.29a).

Figure 4.29 Organic buyers' opinions as to reasons which motivate others to avoid organics, and non-buyers descriptions of own behaviour

a. Why avoid organics?
General public organic buyers (n=44)



b. Why avoid organics?
General public non-buyers (n=98)

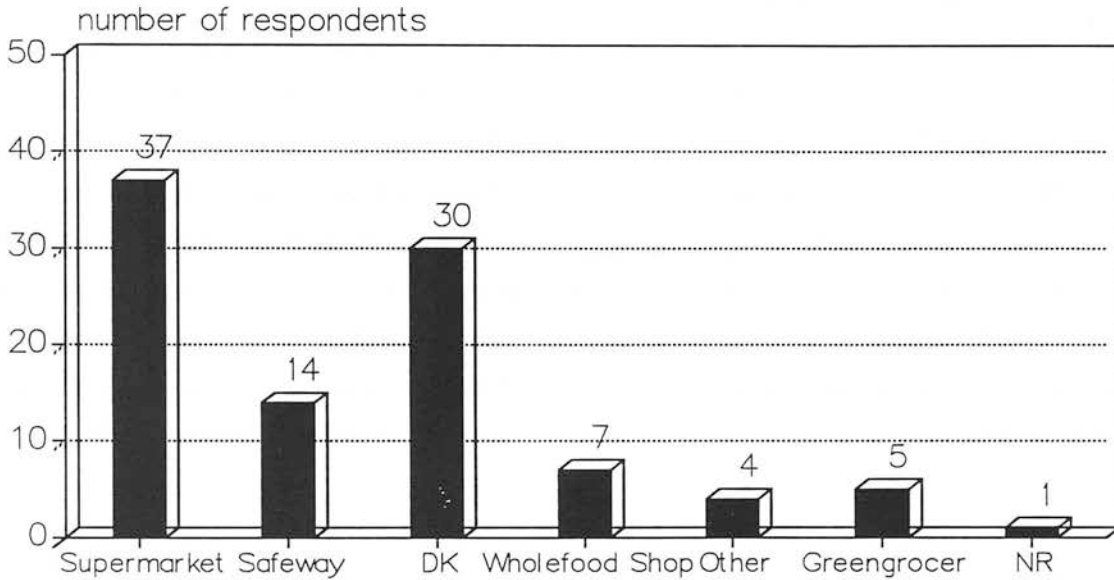


Previous studies have shown price to be the most commonly cited reason to avoid buying organic produce (Harris poll 1990), and in this survey too, the greatest proportion of non-buyers (32%) cited "*expense*" as being the main barrier to purchase (Figure 4.29b). A further 27% of non-buyers gave responses which fell into the category entitled "*not thought about organics*": examples of responses allocated to this category were "*I suppose it's through not knowing enough about it*" and "*I don't apply any importance to it*". These answers reflected the lack of value placed on organic produce by the respondents. A minority (9%) of non-buyers gave reasons which boldly displayed scepticism about organics: the object of this scepticism ranged from cynicism surrounding the motives of organic-selling supermarkets, to a lack of conviction that organic certification could be effectively controlled. Although almost a third of organic buyers blamed "*lack of availability*" as the main non-buying reason, the greatest proportion (41%) believed "*expense*" to be the most important reason as to why others did not buy organic produce. "Negative" non-buying reasons such as "*not thought*" about organics were put forward by only a minority of organic buyers, contradicting the theory that organic buyers harbour contempt for non-buyers in equal measures to the cynicism non-buyers bear against them.

4.38 Non-buyers' Recognition of Organic Retailers

The decision to buy organic may be viewed as a process which involves stages of awareness to knowledge to preference (Lavidge and Steiner 1961, cited in Kotler 1984). While retailers strive to create awareness and liking for organics, they cannot guarantee that even if efforts are successful, the first-time buyer will choose to purchase organics in their store. In this survey, an investigation was made of organic non-buyers' knowledge of organic retailers, by asking the question: "*If you had to buy something organically-grown for a friend or neighbour, where would you try to buy it first?*" (Figure 4.30). The question was deliberately left open-ended and vague to discover how enduring organic produces' traditional association was with specialist and rural outlets.

Figure 4.30 The first retailer organic non-buyers would visit in order to buy organic produce (n=98)



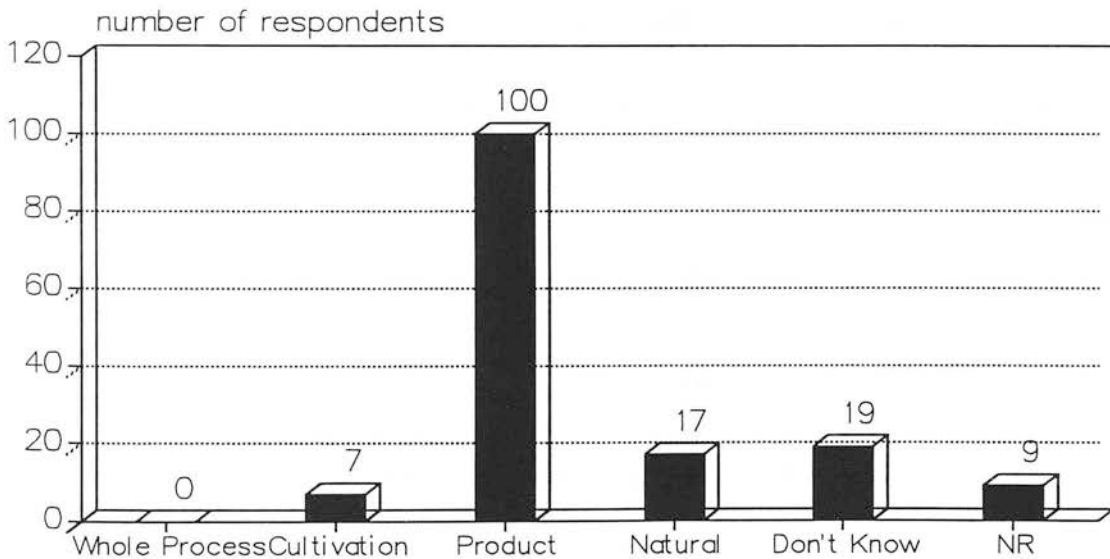
DK = Don't Know NR = Non-response

It can be seen from Figure 4.30 that the largest number of non-buyers (37) said their first choice of organic stocking outlet would be a supermarket. In addition, a substantial 14 out of 92 non-buyers nominated Safeway as a first choice. Although recognition should be made of the fact that the nomination of outlets here may be a reflection of the respondents' habitual shopping place, both results are positive for the food multiple chains which have given organics a high profile as part of their green image. Only a small minority of non-buyers claimed they would try a small, specialist outlet first in an attempt to buy organics. A further point is that nearly a third of non-buyers said they did not know where they would go to find organic produce.

4.39 Definition of the Term Organic by Buyers and Non-buyers

One research hypothesis has proposed a link between knowledge about organics and the likelihood of purchasing organics. A second theory proposed that degrees of knowledge about organics may exist, and that organic buyers are more likely to possess a comprehensive degree of knowledge than are non-buyers. To test this, all general public survey respondents were asked: "Can you explain what you understand by the term "organic" as applied to fruit and vegetables?" (Figure 4.31). A considerable variety of responses was anticipated, therefore categories were created prior to data collection. These were arranged ordinally, from "Natural", which represented a vague description to "Whole process" where understanding of the environmental and social benefits of organics was required. "Cultivation" represented those demonstrating a knowledge of the methods of organic agriculture (use of organic fertilizer and crop rotation), while "Product" indicated those whose understanding was confined to a definition of the product itself.

Figure 4.31 Degrees of knowledge of organics shown by general public survey respondents (n=152)



NR = Non-response

It can be seen from Figure 4.31 that the majority of respondents (66%) were able to furnish at least a product-oriented description, where understanding of organics as an additive-free item was demonstrated. However, 15% of respondents supplied a definition considered to be vague ("its better for you") or erroneous ("its something to do with carbon"), in addition to 10% who claimed outright they did not know what was meant by the term organic.

4.39.1 Organic Purchase and the Ability to Define the Term Organic

It was of importance to investigate whether a significant relation existed between the definition of organic given by a respondent and whether or not that respondent was an organic purchaser. To do this, the definitions of organic given by respondents were first categorised in a methodological way (Figure 4.31). Indeed, the categories were chosen to give an ordinal representation of responses: thus, "*Cultivation*" was considered to be a more thorough definition than "*Product*", and "*Product*" indicated a better understanding than "*Natural*". Next, to test whether organic buyers were more likely to have furnished a fuller explanation of organics than non-buyers, the above categories were combined so that "*Cultivation*" and "*product*" indicated a "*Thorough*" definition, while the responses "*natural*" and "*Don't know*" constituted a "*Poor*" definition (Table 4.30). A product-oriented definition indicated that the basic differences between organic and conventional produce were understood, which merited their inclusion in the "*Thorough*" category. These categories of organic definition were then tabulated against the respondents' status as an organic buyer or non-buyer.

Table 4.30 *The distribution of general public respondents according to their level of definition of the term organic and to whether or not they were organic buyers*

Definition	Buyers	Non-buyers	Total
Thorough	38	67	107
Poor	6	39	45
Total	44	108	152

Chi-squared = 7.557 with one degree of freedom, significant with $P > .01$

It can be seen from Table 4.30 that the majority of buyers' definitions of organic fell into the "*Thorough*" category, in contrast to non-buyers' definitions, the majority of which fell into the category "*Poor*". Indeed, as the chi-squared value from this distribution is significant, it may be assumed that a significantly greater proportion of organic buyers provided a thorough definition of organics than did non-buyers in the general public survey, consistent with the theory that comprehensive levels of product understanding are more likely to be possessed by buyers rather than non-buyers of the product.

4.40 Habitual Places of Purchase of Fresh Non-Organic Produce

The discussion in Chapter 1 proposed that differences exist between customers of small, specialist outlets and those of supermarkets. In addition, the appeal which small outlets enjoy at the expense of supermarkets was emphasised. To investigate both issues, general public survey respondents were asked to indicate first the retail outlet they normally visited to purchase fresh (non-organic) produce, and secondly to give the main reason why they preferred to buy fresh produce from this type of outlet. In choosing non-organic produce all respondents were able to participate in this part of the survey, and in choosing fresh produce an item was specified which does vary in freshness, price and range from store to store.

Figure 4.32 Reasons for general public respondents to prefer their habitual place of purchase of fresh produce (n=109)

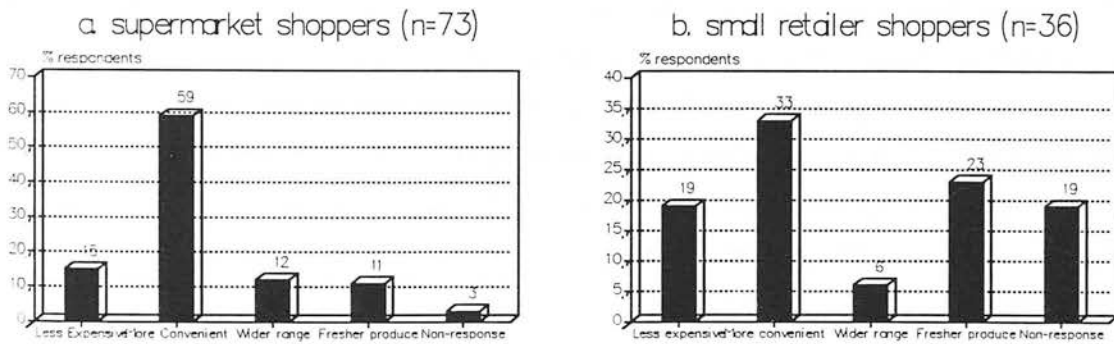


Figure 4.32a shows that the majority (n=43) of supermarket shoppers considered convenience to be the main advantage of purchasing at a supermarket: for many of these respondents, fresh produce was purchased at a supermarket as part of a weekly shop, not because the fruit and vegetables were perceived to be superior to those of smaller outlets. Indeed, only a minority considered the supermarkets' range and freshness of produce to be the main reason motivating them to purchase there. Figure 4.32b shows that the majority of small outlet customers prefer these outlets for reasons of convenience, and that a similarly small number consider the range and freshness of produce to be their main reason for purchasing there.

SECTION II

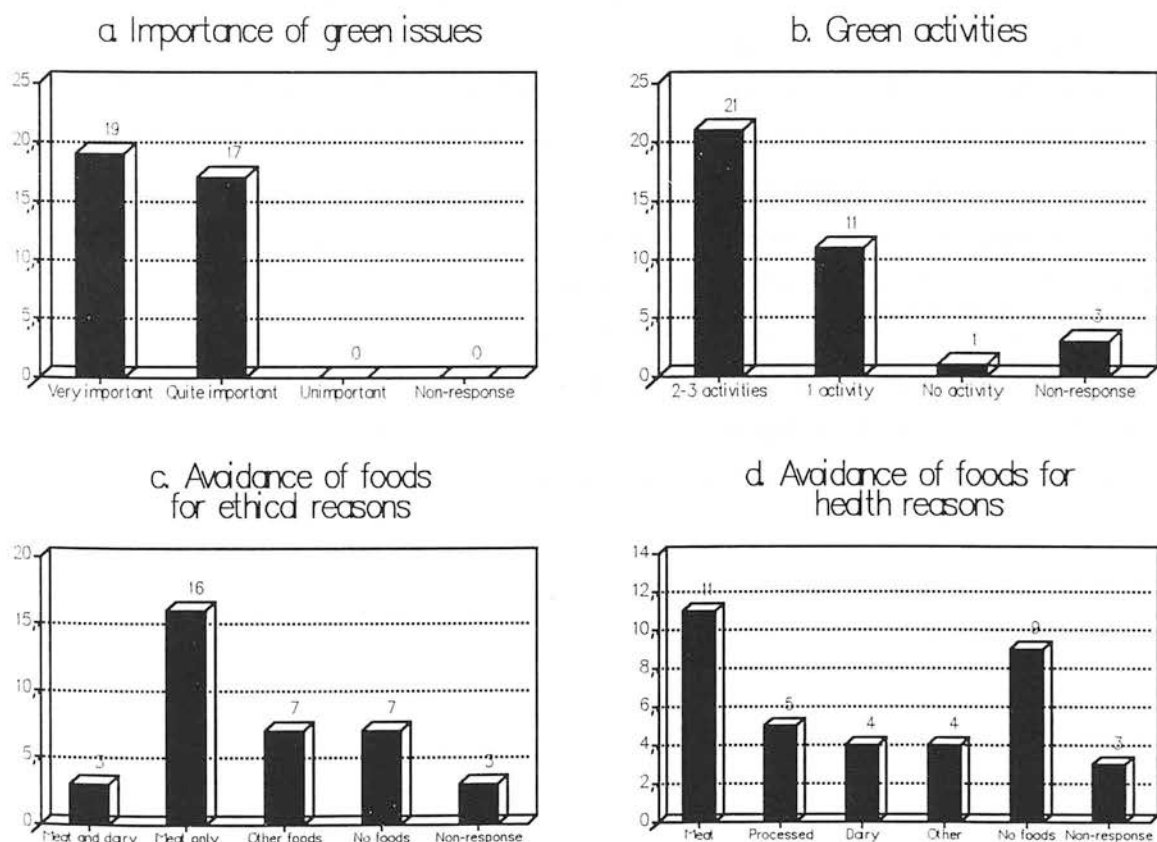
4.41 Organic Buyer Survey Response Rate

31 organic buyers were surveyed by personal interview in three different wholefood shops around Edinburgh in April, 1992. A further 5 questionnaires were collected by mail from buyers who completed the questionnaire at home. As was expected, answers from both interviewees and mail respondents were of very high value, reflecting the respondents' interest in the subject under discussion. Although results of this survey supported hypotheses concerning organic buyers to a greater extent than did results from general public organic buyers, it must be stressed that when interpreting the results of this survey, the type of organic buyers here represent a smaller segment of the whole organic-buying population compared with those questioned in the general public survey. It is logical to assume that regular customers of wholefood shops, whether organic buyers or not, have a particular interest in and commitment to the kind of products sold in these outlets because they are prepared to take the time and effort to seek them out. Such commitment implies that these customers possess a particular set of values and purchase motives quite distinct from purchasers in other outlets. Thus, while it had been desired to draw comparisons between responses from individuals in this survey and those of non-buyers in the general public survey (particularly to interest in green, ethical and health issues), it was believed that the respondents of the organic buyer survey represented too restricted a sample of all organic buyers to justify a such a comparison. The following results have not been compared statistically with the results of any other survey and so are presented in the same order as questions appeared on the questionnaire.

4.42 The Importance of Green, Ethical and Health Issues

Previous studies have linked interest in certain issues with a propensity to buy organic produce (McGregor *et al* 1990). An objective of this study was to determine how important such issues were to organic buyer survey respondents, and their responses are shown in Figure 4.33. Figure 4.33a shows the responses to the question "How important to you are so-called 'green' issues", while Figure 4.33b indicates the ability of respondents to nominate daily activities undertaken resulting from their concern for the environment. The responses, which were unprompted, included activities such as buying 'green' products, recycling materials, using environment-friendly transport and membership of an environmental organisation. Figure 4.33c shows the number of respondents able to nominate spontaneously at least one foodstuff they avoided for moral or ethical reasons. All respondents appeared to understand what was meant by moral or ethical and thus, no prompting was required. Figure 4.33d displays the number of respondents who were able to name at least one foodstuff they had recently begun to avoid because they considered it harmful to their health.

Figure 4.33 The interest in and commitment to green, ethical and health issues by organic buyers (n=36)

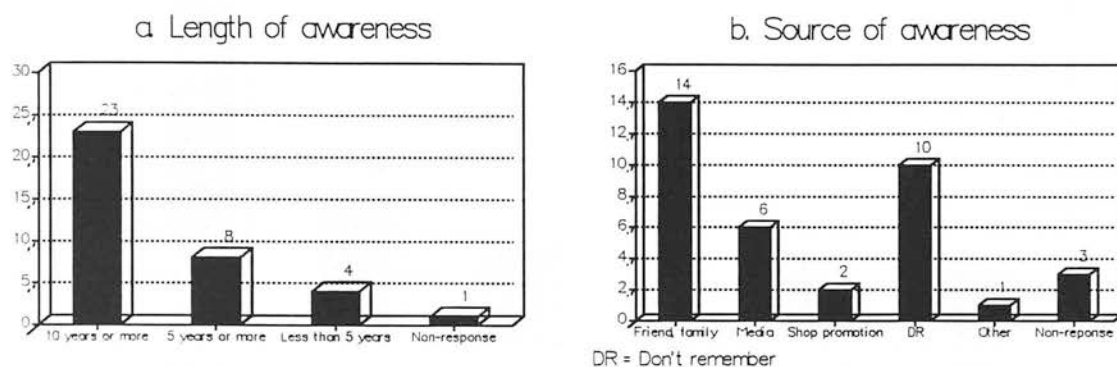


It can be seen from Figure 4.33a that not only did the majority (19 out of 36) of respondents consider green issues to be very important, but that an even greater number (21 out of 36) were able to nominate at least two activities they undertook habitually as a result of their concern for the environment (Figure 4.33b). In many cases, the activities undertaken reflected a considerable degree of commitment on the part of the respondent, from the undertaking of conservation work to the membership of an environmental organisation. The question which concerned the avoidance of foods for ethical reasons generated an equally large proportion of positive responses: 26 out of 36 respondents were able to nominate at least one type of food spontaneously. Many of these responses reflected individuals' concern for social and political situations (such as "*highly processed foods*" and "*South African produce*"), in addition to concern for animal welfare (such as "*dolphin friendly tuna*"). The majority of respondents were also able to nominate foods they avoided for health reasons: without prompting, 24 nominated at least one foodstuff they bought less frequently. The most common foods to be nominated were red meats (11), processed products (5) and dairy foods (4).

4.43 Source and Length of Organic Awareness

In Chapter 1 it was proposed that wholefood shop organic buyers were very likely to possess long-term awareness of organics because this is consistent with their principled buying behaviour. In addition, long-term awareness of any product is often associated with a personal source of awareness such as a friend or family member (Baker 1986). Therefore, in the organic buyer survey, respondents were asked to estimate how long they had been aware of the term organic as well as to indicate what the source of that awareness had been (Figure 4.34). Here, it can be seen that the majority of respondents (23) believed they had been aware of the term organic for 10 years or more (Figure 4.34a), which is consistent with the theory concerning the nature of their buying behaviour. However, a lesser proportion of respondents (14), became aware of organics through "personal" sources such as friends or family, despite the fact that these sources are normally associated with long-term awareness (Figure 4.34b). In addition, a large number of respondents (10) were unable to remember what the source of their awareness had been.

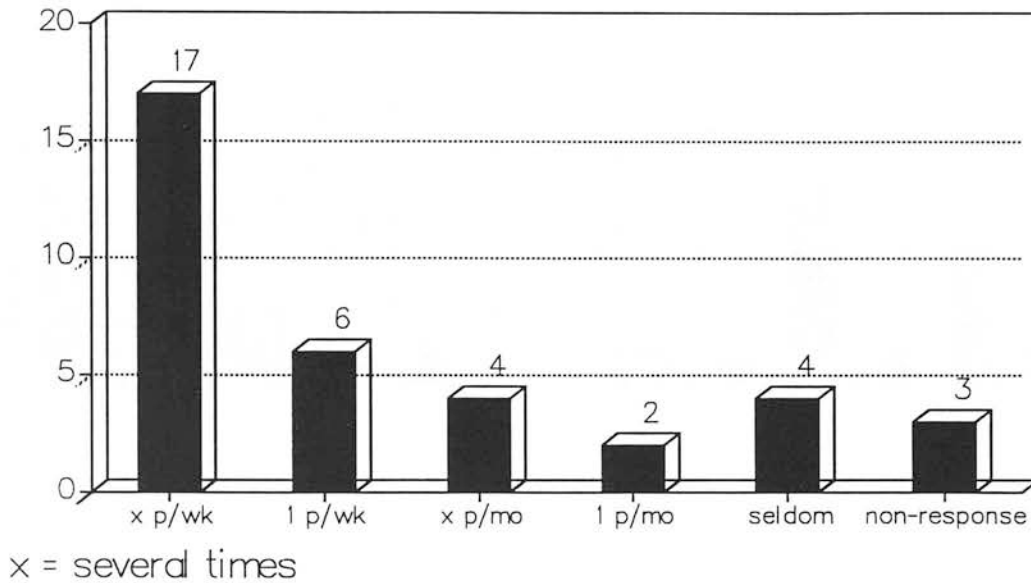
Figure 4.34 The length and source of awareness of the term organic of organic buyer survey respondents (n = 36)



4.44 Rate of Organic Purchase

The rate at which a product is purchased may, in some cases, indicate the buyer's degree of commitment to the product (Baker 1986). As Chapter 1 proposes that wholefood shop customers generally possess a higher degree of commitment to organics than do supermarket customers, it follows that wholefood shop organic buyers will purchase the produce more frequently than will supermarket organic buyers. Here, respondents were asked to answer the following question: "How often do you purchase organic food?" The various rates of purchase fell into five categories (Figure 4.35), from "several times per week" to "seldom". The responses "once per week" and "several times per week" were judged to show a frequent purchase rate and thus represent committed organic buying behaviour. Figure 4.35 shows that the majority (23) of respondents did claim to purchase organic food at least once per week, consistent with the theory that wholefood shop organic buyers are likely to be committed in their buying behaviour.

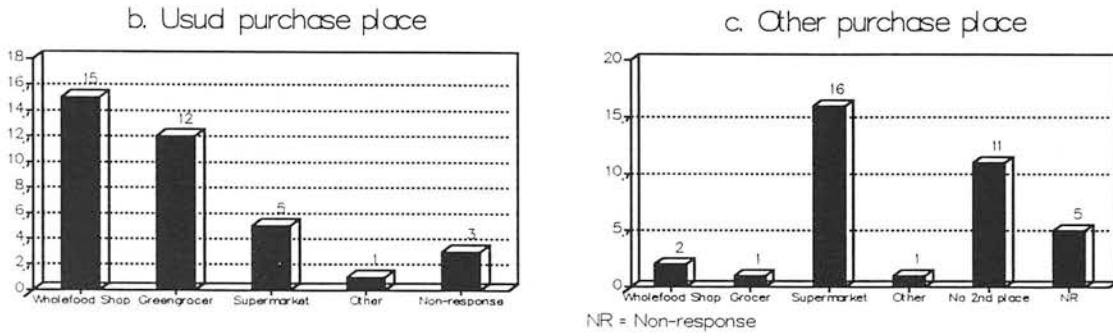
Figure 4.35 The rate of purchase of organic foods by organic buyer survey respondents (n=36)



4.45 Place of Organic Purchase

While Figure 4.35 showed that the majority of respondents were frequent organic buyers, it was necessary to verify that respondents frequented wholefood shops habitually to purchase organics in preference to other types of retailer. Clearly, their presence in a wholefood shop at the time of surveying did not guarantee that they were frequent customers of this type of outlet. Respondents were therefore asked to indicate the usual retail outlet in which they purchased organic produce (4.36b), in addition to any other type of outlet in which they bought organics from time to time (Figure 4.36c). The majority of responses were split quite evenly between those who bought organics habitually in wholefood shops (15), and those purchasing in greengrocers (12). Only five respondents claimed to use a supermarket as their regular place of purchase (Figure 4.36b). However, the number of respondents who claimed supermarkets were a secondary place of purchase (where organic purchases were made less frequently) was much higher at 16 (Figure 4.36c).

Figure 4.36 Habitual and non-habitual places of organic purchase (n = 36)



In order to determine whether an association existed between the respondents' rate of organic purchase and the **usual** place of purchase, the data in Figure 4.36b were used for chi-squared analysis. As the number of respondents in the organic buyer survey was low, it was necessary to combine categories of respondent to ensure a valid result from the chi-squared test (Siegel and Castellan 1988). The data in Figure 4.36b were tabulated such that respondents who claimed to buy organics either in a greengrocer or in a supermarket were combined into one category (Table 4.31), while wholefood shop buyers comprised a second category. This amalgamation was judged to be the most effective because the organic buying behaviour of greengrocer and supermarket customers was believed to be mutually similar, yet distinct from that of wholefood shop customers (Chapter 1). Respondents' purchase rates were also combined for the purpose of chi-squared analysis, into the categories "*once per week or more*" and "*twice per month or less*". This amalgamation was considered to best represent the division between frequent and infrequent buyers. Table 4.31 displays the result of the chi-squared test.

Table 4.31 *The usual place and rate of organic purchase (n = 35)*

Purchase Rate	Wholefood	Supermarket/Grocer	Total
1/p/wk or more	15	9	24
*x/p/mo or less	2	9	11
Total	17	18	35

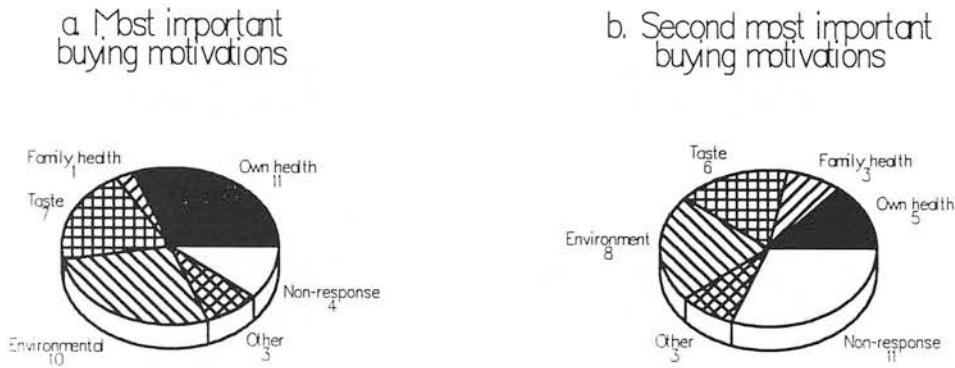
* x/p/mo = "twice per month or less"

Chi-squared = 5.931 with one degree of freedom, not significant with $P > .05$. Therefore, despite the fact that a greater number of wholefood shop organic buyers purchased frequently than did supermarket or greengrocer buyers, the difference between the two types of buyer was not significant. It cannot be presumed that wholefood shop organic buyers were more likely to be frequent purchasers than were supermarket or greengrocer organic buyers.

4.46 Buying Motivations for Organic Produce

Organic buying motivations are a central focus of this research. Here, respondents were asked to give what they considered to be their main reason for buying organic produce, and responses were unprompted in an attempt to obtain the most spontaneous answers. As Figure 4.37a shows, the largest proportion of responses (11 out of 36) came from those who claimed "concern for own health" to be the most important reason for buying organic. This was followed by "concern for the environment", which 10 respondents considered to be the most important buying motivation. Figure 4.37b reveals the buying motivations rated as second most important by respondents. Interestingly, "concern for family health" was the only motivation rated by a greater number of respondents as second most important (3) than most important (1).

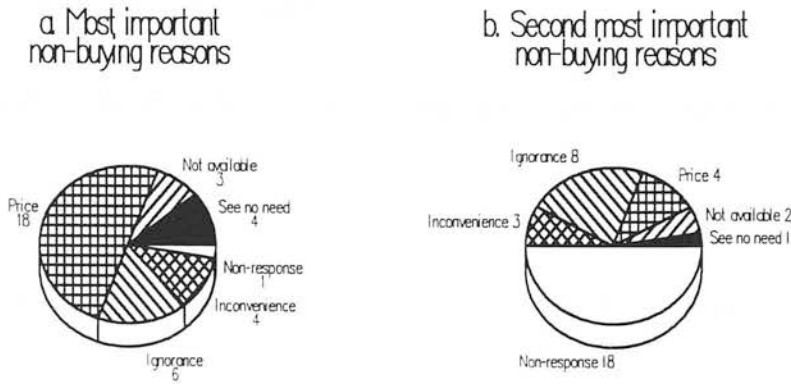
Figure 4.37 The relative importance of organic buying motivations



4.47 Reasons for not Buying Organic Produce

In Chapter 1 it was proposed that organic buyers differ from non-buyers in various ways. An additional theory proposed that a degree of cynicism exists between the two types of individual, particularly between non-buyers and committed, principled organic buyers. As many of the respondents to the organic buyer survey fell into the latter category, it was crucial therefore to investigate their opinions as to the reasons why others did not buy organics. While respondents were asked to give their view of only the main reason for avoiding organics (Figure 4.38a), in many cases individuals were quick to propose a second reason without the need for prompting, and these responses are presented in Figure 4.38b. Figure 4.38a shows that "*price*" was judged to be the most important non-buying motivation by the greatest number of respondents (18), yet "*ignorance about organics*" and "*a lack of perceived need*" for the produce comprised the second and third largest numbers of response (from 6 and 4 respondents respectively). "*Ignorance*" was the most common choice among respondents who offered more than one non-buying reason (Figure 4.38b)

Figure 4.38 Organic buyers' opinions as to the most and second most important reasons why others do not buy organics

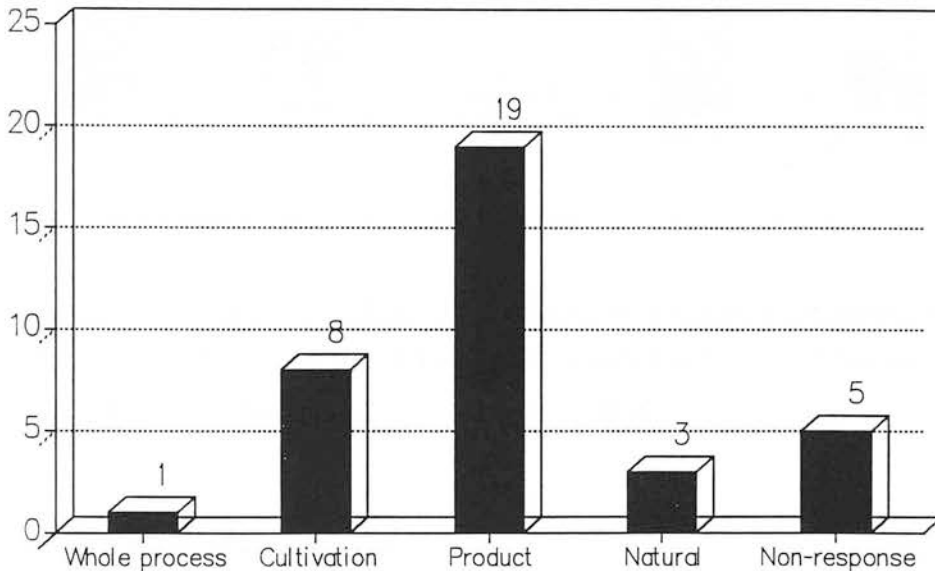


4.48 Definition of the Term Organic

The ability to define a product is important to the purchase decision: not only are individuals more likely to buy a product if they possess prior knowledge of it (Lavidge and Steiner 1961, cited in Kotler 1984), degrees of product knowledge can exist among the public (Wilkins and Hillers 1990), with the implication that those possessing a more comprehensive knowledge of organics are more likely to be buyers than non-buyers. With this in mind, organic buyers here were asked to explain what they understood by the term organic, and this question was positioned last to allow time to record the definitions as accurately as possible. Comprehensive, factually-based definition were sought, but as responses were spontaneous, they varied from vague descriptions of the benefits of the produce to definitions which encompassed all the wider benefits of the organic process. To assist analysis, responses were split into four categories upon completion of the survey (Figure 4.39). The categories of definition are arranged ordinally from "*Natural*", which signifies the poorest definitions, to "*Whole process*", representing the fullest. The "*Natural*" category included sketchy allusions to "*the good old-fashioned way*" and "*the agriculture nature intended*": therefore, these respondents did not

demonstrate basic, factual knowledge of the differences between organic and conventional. "Product" definitions were based on the additive-free nature of the organic product itself, and Figure 3.6 shows that the majority of respondents (19) provided this type of definition. Respondents who gave "Cultivation" definitions gave an explanation of the agricultural methods used by organic growers in addition to a description of the product, while only one respondent gave what was considered to be the most comprehensive response: "Whole process", where the social and environmental benefits of organic methods were expounded together with a description of the produce and its cultivation.

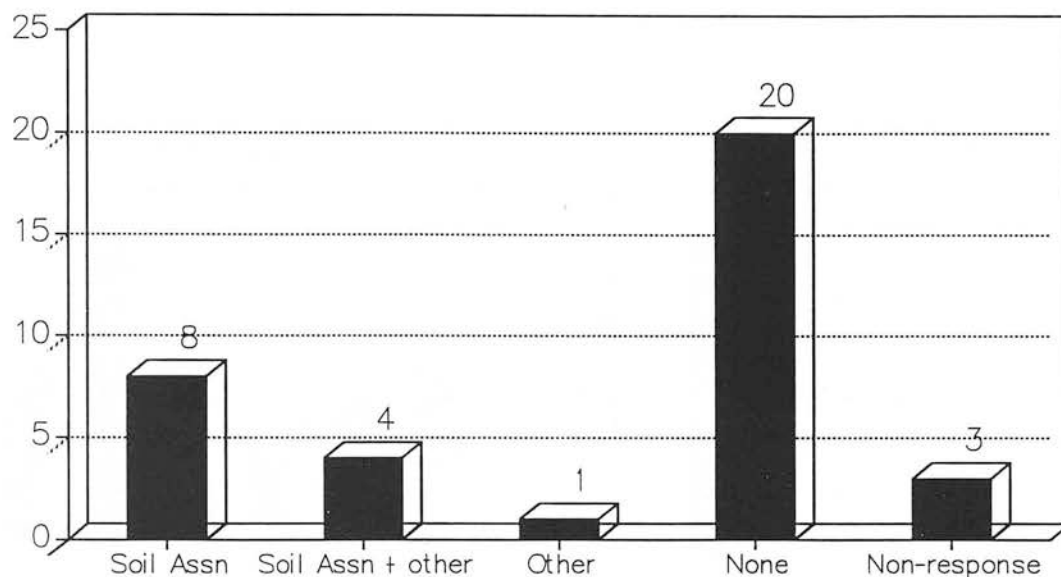
Figure 4.39 The degrees of understanding of the term organic possessed by organic buyer respondents (n=36)



4.49 Recognition of Organic Symbols

One hypothesis of this research has proposed a link between individuals' recognition of an organic standard symbol and the likelihood of them purchasing organics. The discussion in Chapter 1 has also cast doubts on the importance of the presence of standard symbols in a person's decision to buy organic produce. Although the results of this survey are not compared with those of the general public survey, it is nevertheless important to investigate the degree of symbol recognition amongst this specialised sample organic buyers. Each respondent was asked, unprompted, if he or she could describe any symbol and/or name an association which issues organic certification. Results are shown in Figure 4.40.

Figure 4.40 The recognition of organic standard symbols and issuing bodies by organic buyer respondents (n=36)

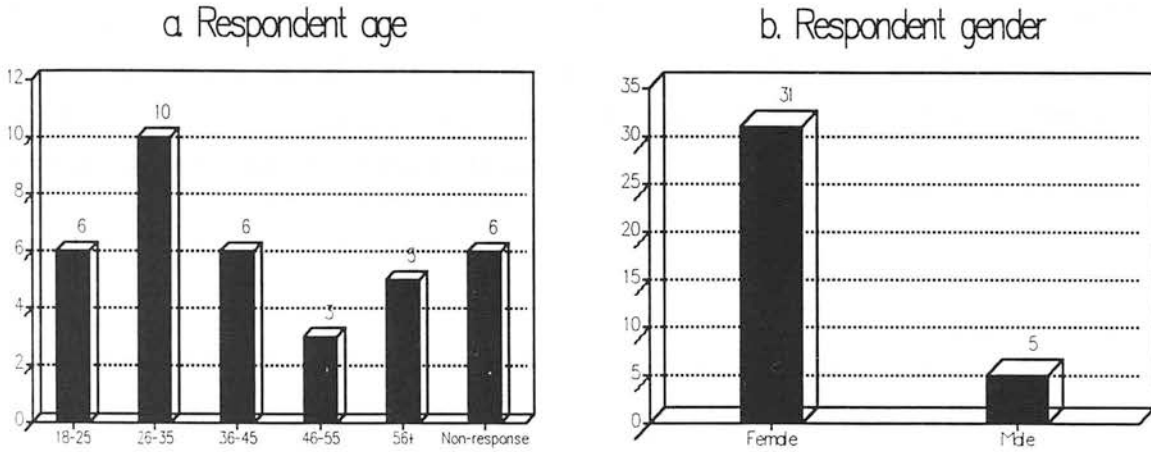


It can be seen that although the Soil Association symbol was the most frequently recognised, being named by 12 respondents, the majority of organic buyers (20) were unable neither to nominate nor describe any type of organic standard symbol.

4.50 Age and Gender of Respondents

Studies by Which? (1990) and Mintel (1991) attempt to link the inclination to buy organic with certain demographic characteristics, the results of which suggest that younger rather than older age groups are pre-disposed to purchasing organics, and that organic buyers tend to be female rather than male. In this survey, respondents who were personally interviewed had their age and gender recorded by the interviewer (31), while those who returned questionnaires by post recorded this information themselves (5). Therefore, it should be recognised that the following results are subject to the discretion of the interviewer and the postal survey respondents. Age categories were created prior to data collection to assist judgement and these reflected the age categories used by other consumer studies. Results are presented in Figure 4.41.

Figure 4.41 The age and gender of organic buyer survey respondents (n=36)



It can be seen from Figure 4.41a that the most common age category for organic buyers to fall into was the 26-35 group, a result consistent with the findings of Which? (1990) and Mintel (1991). In addition, Figure 4.41b demonstrates that the proportion of females to males among organic buyers was more than 6 to 1. This is also consistent with the findings of Which? (1990) and Mintel (1991).

SECTION III

5 Discussion

This chapter provides a discussion of the results presented in Chapter 4. It is divided into five sections, discussing results pertaining to organic buying behaviour; non-buying behaviour; the differences between organic buyers and non-buyers; organic supply and availability; and organic retailers' opinions of the market.

5.1 Results Pertaining to Organic Buying Behaviour

5.1.1 *Purchasing Behaviour*

General public survey results revealed that an unexpectedly high proportion of the Edinburgh population (nearly one third) had at least once bought organic produce (Figure 4.21). This ratio of buyers to non-buyers was below that found by previous studies (Dent 1988, Henley Centre 1989). Nevertheless, it is possible that the high proportion found in this survey could have been exaggerated as a result of the telephone interview method employed: this method can prompt a disproportionate amount of positive responses by way of the interviewee's desire to give the response he or she thinks the researcher would like (Tull and Hawkins 1987).

5.1.2 *Organic Purchase Motivations*

Results of retailers' opinions revealed that wholefood shops, supermarkets, greengrocers and farm shops considered the most important motivation to buy organic to be concern for own health or concern for family health (Figures 4.5a to 4.5c). The consensus of retailers' opinions was supported by the findings of the organic buyer and general public surveys where respondents also pin-pointed health as being the most important reason to purchase (Figures 4.37a and 4.28 respectively). One explanation for these results could be the wide exposure given to food safety issues over the last five years. It would be logical to suppose that the subsequent concern over the level of artificial chemicals present in foods has led to the

perception of additive-free organics as being a healthy option and this is consistent with the conclusions of previous studies (Wilkins and Hillers 1990, Mintel 1991, Boyle *et al* 1991), where a link is made between the concern shown by consumers towards the level of chemicals in conventionally-produced food and the rise in the demand for organics. A second reason to explain the popularity of health as a motivation is the fact that it is self-oriented: individuals are very likely to buy a product if they perceive themselves to be the prime beneficiary of a purchase (Baker 1986), and it follows that a self-oriented motivation to buy organic is likely therefore to be widely experienced. The high proportion of wholefood shop respondents who chose health as a prime motivation may be explained by the nature of these retail outlets themselves, where the issue of health could be considered an integral part of the shopping experience for any type of produce, not just organic.

5.1.3 *Novelty as an Organic Buying Motivation*

Compared with wholefood shop respondents, a significantly greater proportion of supermarket respondents rated the "opportunistic" motivation of novelty as being of some importance to their organic buying customers (Table 4.3). The importance of this motivation to this retailer type may be explained according to the theory proposed in Chapter 1. Supermarkets, because they derive their customer base from a wider cross-section of the public than do wholefood shops, have more customers possessing a limited knowledge of organics. If an opportunistic motivation is defined as one which involves a minimum of prior knowledge of the product, it follows that such a motivation would be more prevalent in those outlets drawing a non-specialised clientele. This theory is consistent with the premise that the range of products offered by a retail outlet is reflected in its variety of clientele (Kotler 1984). It should be noted nevertheless, that novelty was not rated highly by any retailer type in relation to other motivations (Figure 4.5). One possible cause of this result could be the reluctance of retailers to insinuate that their customers are uninformed about their products (which in fact would be an indirect criticism of their own role as a provider of product information).

5.1.4 *Environmental Concern as an Organic Buying Motivation*

An unexpectedly high proportion of supermarket respondents rated concern for the environment as being a prime motivation to buy organic (Figure 4.5b), a result supported by the majority of supermarket respondents who agreed that most organic buyers purchased to be "green" (Table 4.18). Both outcomes contradict the theory that supermarket customers are less likely to buy for "altruistic" reasons because they constitute a broader-based section of the

public than do wholefood shop customers. However, one explanation for the result stems from the theory proposed in Chapter 1, which asserts that many green-motivated organic purchases are in fact **not** altruistic. This is because public interest in environmental issues experienced such rapid growth in the late-80s that a trend for "green" products was created, during which many products were purchased for reasons of fashion (Wilkins and Hillers 1990). Today, it may be argued that many organic purchases outwardly perceived as being green purchases in reality have been motivated by fashion. In this survey, supermarket respondents were unlikely perhaps to admit fashion motivated purchases, hence the popularity of environmental concern as an organic buying motivation. Alternatively, the result may have been a consequence of respondents reacting to the image of organics as portrayed by their supermarket companies rather than responding directly to their customers' buying behaviour. This explanation is based on the belief that the major supermarket companies have adopted a "green" orientation and that the organic merchandising of supermarkets (eg Safeway's "Shout About Organics" campaign in 1989), although not explicit, does carry the message that organic produce is environment-friendly. Such an orientation may have influenced the judgement of supermarket respondents.

5.1.5 Place and Rate of Organic Purchase

The general public survey revealed that supermarket organic buyers were less frequent buyers even though they constituted a much larger proportion of all organic buyers (Table 4.29). A chi-squared test did not prove that supermarket buyers were **significantly** less frequent buyers, but the ability of the test to show significance was undermined by the shortage of wholefood shop organic buyers from which to draw on (only 5 out of a total of 44 buyers). The infrequent purchasing of supermarket organic buyers is nevertheless interesting and may be explained in the following way. Marketing theory states that an individual is more likely to be a infrequent purchaser if he or she experiences a lack of commitment to the product (Baker 1986). Results from the retailer survey found that a significantly greater proportion of supermarket buyers are motivated by reasons which display a lack of commitment to organics, in contrast to wholefood shop buyers. As supermarket buyers were less frequent purchasers, it is possible that the infrequent nature of their purchasing was a consequence of their lack of commitment to organics. It is possible therefore, that there was a link between the place and rate of purchase and the motivation behind that purchase.

5.2 Results Pertaining to Non-buying Reasons

5.2.1 Reactions to Organic Price

General public survey non-buyers were asked to give the most important reason as to why they did not buy organics. Not surprisingly, the greatest proportion of respondents (32%) nominated price: a result consistent with the findings of Harris in the US (1990, cited in Boyle *et al* 1991) and Mintel (1991), where price was the most commonly-cited barrier to organic purchase. It would appear to be a paradox that while the sales of some value-added products (which also charge a premium) are growing, the demand for organics is stagnating. One explanation could lie in the public's perception of the value of organic produce. Thus, while people are willing to pay extra for some foods, they balk at organic premiums because the benefits they perceive in the produce are not sufficient to outweigh the financial sacrifice. Such an explanation is consistent with the theory of purchase motivation introduced by Baker (1986), who asserts that individuals will weigh up potential purchases against their disposable income and that the product they choose to buy will be the one they perceive to be the most valuable. The effect of the recession in lowering disposable income and thus causing organics to be "pushed" further down people's value hierarchy cannot be underestimated.

Analysis of the supermarket and wholefood shop surveys also showed that a significant relation existed between the type of organic retail outlet and the importance of organic price as a non-buying reason (Table 4.5). A greater proportion of supermarket respondents believed price to be the most important reason why people do not buy organics compared with wholefood shop respondents. This result is consistent with the theory, derived from Kotler's distinction (1984) between a supermarket's and a specialist's clientele, that wholefood shop customers are more committed than customers of other retail outlets to purchasing organics regardless of price because they perceive benefits in the product which outweigh the financial burden. In addition, the link between commitment to the product and willingness to pay a premium supports the findings of McGregor *et al* (1990), who found that individuals strongly committed to organics would appreciate the value it offered in terms of goodness, purity and taste, while non-buyers felt the price premium over conventional produce could not be justified. The high proportion of supermarket respondents who claimed price to be the most important purchase barrier may also be attributed to the close proximity of organics to conventional produce in-store, serving to reinforce the price differential to the customer. It should be noted that price was seen by both general public and organic buyer survey respondents as the most important reason for not buying organics. Such unanimity could be a result of respondents picking the most acceptable and reasonable option in the telephone interview situation (Kinnear and Taylor 1979).

5.2.2 *Reactions to the Appearance of Organics*

Only a minority of general public survey respondents cited the poor appearance of organics as being a reason for not buying the produce (Figures 4.29a and 4.29b). This result is consistent with the findings of surveys by Which? (1990) and Mintel (1991), where most respondents rated organic appearance as being a less important barrier than price or availability. Comparison between supermarket results and wholefood shop results showed no significant link between the importance of organic appearance as a barrier to purchase and the type of retail outlet where organics are sold (Table 4.7). Here, analysis was expected to show a dichotomy between the views of supermarket and wholefood shop respondents: because supermarket customers were believed in general to be less knowledgeable about organics and would therefore find the often less than perfect appearance of organics unappealing, it was believed that supermarket retailers would rate organic appearance as being a more important barrier to purchase than wholefood shop respondents. However, the lack of difference between the two retailer types found here supports the results of the general public survey question relating to knowledge of organics (Figure 4.31). Here it was found that two thirds of non-buyers possessed at least a product-oriented knowledge of organics. If an association may be drawn between a person's lack of knowledge about organics and being dissuaded from purchase because of its appearance, it would not be surprising to find that no more supermarket customers than wholefood shop customers were put off purchase because of organic appearance. This theory would also explain the lack of importance accorded to organic appearance by general public respondents.

5.2.3 *"Lack of Thought" about Organics*

In the general public survey, the second greatest proportion of non-buyers (24%) cited reasons which indicated a lack of thought about organics. This result supported the findings of Mintel (1991), where 20% of respondents claimed they did not buy organics because they were happy with conventional produce. It should be noted that the total could have been greater but for the reluctance of people to express disinterest in a subject in a personal interview situation. As the result encourages the belief that lack of thought about organics is a more important non-buying reason than is generally recognised, it should be noted that there is an important difference between a lack of **thought** and a lack of **perceived value** in organics (a catchall under which would come the reasons of high cost and limited availability). The latter implies that the individual has undergone a mental process whereby the benefits and shortcomings of purchasing organics have been systematically weighed up, or indeed that the individual is uninformed or misinformed of these. Lack of thought, as claimed by general public

respondents, implies that the individual is not only ignorant of organics, but also indifferent to that ignorance. It could be considered therefore, that for respondents who cited lack of thought as a reason not to buy organics, two levels of resistance exist.

5.3 A Comparison of Buyers and Non-buyers

5.3.1 *Organic Purchase and Demographic Sub-grouping*

Studies by Mintel (1991) identified a number of (contradictory) demographic characteristics most likely to be possessed by an organic consumer, the most widely accepted of these being that individuals of the ABC1 socio-economic categories are most likely to be organic buyers. Results from the general public survey on this issue were inconclusive. No correlation was found to exist between respondents' socio-economic status and the propensity to buy organic (Table 4.23). Yet a significantly greater proportion of respondents with a professional or clerical occupation were found to be organic buyers compared with OAPs or those with a manual occupation (Table 4.22). Results pertaining to other demographic variables were conclusive however: no significant link was found to exist between respondents' inclination to buy organic and their age or gender (Tables 4.20 and 4.21). The absence from this study of a conclusive age or socio-economic grouping among organic-purchasing respondents may be attributed to the following theory. It has been proposed that in the past, many young ABC1 consumers have purchased organics through the perception of a novel or fashionable product rather than through genuine altruistic commitment to organics. In the last two years however, a combination of reduced spending power and interest in green products has diminished their rate of purchase because the value they place on organics is not perceived to be worth the financial sacrifice (Baker 1986). In addition, the lack of a particular gender grouping among organic-buying respondents may be explained in a similar way: the discussion in Chapter 1 asserted that many females have bought organics in response to wide media exposure of the effects of food adulteration on family health. With the recent lull in such media attention, it follows that the value which these buyers placed on organics has also diminished, with the result that the current organic-buying population is less concentrated in the female sector. In fact from this discussion, it may be concluded that the current population base of organic buyers is demographically diverse, grouped by a high level of commitment to organics rather than by any demographic sub-grouping.

5.3.2 *Green Importance and Green Activities*

A number of authors (McCormick 1991, Boyle *et al* 1991) have suggested that over the last decade, people have become more interested in environmentalism and green issues. The majority of participants in the Mintel Green Consumer Guide research (1989, cited in Boyle *et al* 1991) expressed concern about a range of issues from deforestation to the use of artificial chemicals in agriculture. In this study, a quarter of the general public respondents - both organic buyers and non-buyers - who rated green issues as very important (Figure 4.23), went on to claim they undertook nothing in their daily lives as a result of this concern (Table 4.26). The result is interesting because it suggests respondents were more aware of the importance of green issues, but that this awareness had not yet become sufficiently profound for the respondents to consider undertaking activities. Clearly, it would be of interest for any producer of "green" items to know the point at which consumer concern about the relevant issue becomes sufficiently pressing for a purchase to take place. Nevertheless, two cautionary remarks should be made in connection with the general public survey results, both of which concern the data collection method of telephone interviewing. The high proportion of "quite" or "very" concerned respondents could be attributed to the positive bias which often occurs with telephone interviewing, while the small proportion of "actively green" respondents may have been due to the interviewees' inability to nominate activities spontaneously in a telephone interview situation (Tull and Hawkins 1987).

5.3.3 *Green Activities and Organic Purchase*

The current research focuses on the relation between interest in certain issues and the inclination to buy organic. Results of the general public survey showed a very significant ($P > .001$) link between organic purchase and "green" activities (Table 4.25). Thus, organic buyers were more likely to undertake actions in their day to day lives as a result of their concern for the environment than were general public non-buyers. Given this conclusive result, the following sections discuss the difference between buyers' and non-buyers' attitudes towards ethical and health issues believed, like environmental ones, to be related to a person's likelihood of buying organic.

5.3.4 *Ethically Motivated Avoidance of Foods*

It can be difficult to measure the importance of ethical motivation because it is often implicated with other factors in a buying decision: for example there is some confusion as to the relative importance of ethics and taste in the purchase of free-range chickens or eggs (Ross 1990). A second factor of ethically motivated purchase is that it can be swiftly and dramatically influenced by the media (Mintel 1991). In this study, only a very small number of general public respondents nominated one foodstuff they avoided primarily for ethical reasons (Figure 4.25), and it is noteworthy that the survey was carried out during a period where no high-profile media attention was being paid to farm animal welfare. A link was proposed between organic purchase and ethically-motivated avoidance of food. While a large proportion of the organic buyer survey respondents indicated that they avoided at least one foodstuff for ethical reasons (Figure 4.33c), comparison between organic buyers and non-buyers **within** the general public survey did not show that the former were significantly more likely than the latter to avoid foods for ethical reasons (Table 4.27). An explanation for this disparity of results may lie in the type of organic buyers comprising each survey. The organic buyer survey was composed exclusively of wholefood shop buyers who have already been shown to have the kind of principled organic buying habits which are consistent with the issue under test here of ethical avoidance of other foods. The general public organic buyers however, comprised a wider spectrum of purchasers, a proportion of whom bought organic for less "principled" reasons. It is possible that the latter were less motivated by altruism in their purchasing behaviour and were therefore unlikely to show such behaviour in the area of ethical avoidance of foods. A second explanation for this disparity rests with the method of data collection employed for each survey. It is possible that organic buyer survey respondents were more disposed to a positive response because the interviews took place in wholefood shops, an environment conducive to the subject of ethical choices.

5.3.5 *Health Motivated Avoidance of Foods*

Studies conducted by Wilkins and Hillers (1990) and Boyle *et al* (1991) show that the majority of buyers and non-buyers perceive an organic purchase to be a health purchase. But how important an issue is food safety to buyers and non-buyers? Results of the organic buyer survey showed that a quarter of these respondents had made no recent changes in their diet despite extensive media focus on particular foods (Figure 4.33d). An explanation for this perhaps surprising result lies in the wording of the question ("*What foods do you now avoid buying because you believe them to be harmful to your health?*"). As there is evidence to suggest that organic buyers comprise a section of the public that is particularly aware and concerned

about food health and safety (McGregor *et al* 1990), it follows that the adjustments in eating habits currently being recommended will have been undergone by them some time ago. Thus, organic buyers will have made few **recent** changes in their diets. Furthermore, analysis of the general public survey demonstrated no significant difference (with $P > .05$) between the proportions of organic buyers and non-buyers who avoided at least one foodstuff for reasons of health (Table 4.28), supporting the belief that many committed organic buyers tend to purchase food according to their own principles. Clearly, these results have implications for the way in which organic retailers may position and merchandise their produce. An additional note is that a greater proportion of general public non-buyers claimed to act according to their health than according to green or ethical issues (Tables 4.28, 4.25 and 4.27 respectively). This supports the belief that these respondents were more likely to be influenced by the media and/or act on an issue which was primarily in their self-interest.

5.3.6 *Organic Knowledge amongst the Public*

As 75% of general public respondents were able to furnish what was considered a satisfactory definition of the term organic (Figure 4.31), it would appear that the subject of organic knowledge gave rise to a positive result. However, Wilkins and Hillers (1990) highlight the different levels of general food knowledge that can exist among the public, from the ability to define the nutritional content of a product to the understanding of the processes and practices involved in its production. This "hierarchy" expresses itself in an interesting way when applied to the results of the general public survey on organic knowledge. Here, it was found that knowledge of the processes involved in organic cultivation was almost exclusively possessed by organic purchasers, while non-buyers' definitions were confined to descriptions of the product (Table 4.30). From this, it may be concluded that to increase the likelihood of organic purchase, a more profound knowledge of the process needs to be instilled. Interestingly, the product-oriented definition given by so many (65%) of the general public respondents mirrors that used by supermarkets and the media when describing organics. This outcome brings a positive element to the discussion of the effectiveness of a supermarket organic awareness campaign, such as that of Safeway plc in 1989.

5.3.7 Public Awareness of Organics

In the general public survey, the level of organic awareness possessed by non-buyers was extremely high: only a very small minority claimed to be unaware of the term (Figure 4.27a), which is a positive result from the point of view of organic retailers. Analysis also showed a significant link between the source of awareness of organics and the purchase of organics (Appendix 5). While the majority of respondents initially became aware of organics through impersonal means (the media or shop promotion), regular buyers (the minority) were more likely to have had a personal source of awareness (family, friend or job). This result supports the theory of Baker (1986), who stresses the profound and lasting effect personal information sources like family can have on individual buying behaviour.

Awareness of organic standard symbols was poor among respondents of the organic buyer survey (Figure 4.40). One explanation for this low response is that respondents were asked to name standard symbols without a prompting aid: it is possible that recognition is latent and that respondents would still check for certification when buying a product, rendering the result unrepresentative. Nevertheless, it may be concluded from this result that if respondents perceived real benefits in organics, the presence of a symbol would be a lesser consideration in the decision to buy organic. From the general public survey, the extent to which organic certification was a consideration for non-buyers was unclear, although it would appear to be only minor (Figure 4.29b). Therefore, more important purchase barriers exist which will influence the decision not to purchase, irrespective of whether or not the produce is certified.

5.3.8 Organic Buyer and Non-buyer Scepticism

Porrit (1989) highlights the negative image which the general public have of organic buyers, with descriptions of organics as being the realm of "*bearded hippies*" and "*the middle-class ghetto*". In the current research, a minority of general public non-buyers (9%) supplied purchase reasons which displayed their deep scepticism as to why people do buy organics (Figure 4.29b). In addition, only a small proportion of non-buyers (6%) cited the altruistic motivation of "*environmental concern*" as a reason for others wanting to buy organic. In the organic buyer survey, respondents' opinions as to why people do not buy organics differed significantly from the actual reasons for non-purchase given by general public respondents. Of note, nearly half of the organic buyers cited "*ignorance*", "*inconvenience*" or "*see no need*" as the most important reasons for non-purchase (Figure 4.38a); not surprisingly, a lesser proportion of non-buyers used a similar reason ("*lack of thought*") to describe their own behaviour (Figure 4.29b). The views illustrate the degree of cynicism which existed between buyers and non-buyers.

5.4 Results Pertaining to Supply and Availability

5.4.1 *Fresh Organic Produce Selection*

In Chapter 1 it was proposed that the range of organic produce stocked by a retail outlet is one important determinant of demand. It was decided therefore, to discover the range of fresh organic produce stocked by each retailer type. Comparison between supermarket and wholefood shop surveys here showed that in general, supermarkets had a significantly ($P > .01$) wider range of fresh organic produce than wholefood shops (Table 4.1). This result was consistent with the views of Mintel (1991), who suggest that supermarkets are more likely to stock a wide range of fresh organic produce than smaller outlets because of their buying power. The result is also logical in view of the traditional difficulties which wholefood shops have in handling fresh produce (Lampkin and Stopes 1989). Yet it should be noted that a small proportion of wholefood shop respondents claimed to avoid stocking a wide range of fresh produce for ethical rather than economical reasons: the view of many small retailers was that to ensure a wide produce range would entail increased transportation and processing, both of which they saw as contrary to the organic ethic. Clearly, such a stand-point has implications for the expansion of the market at least within this retailer sector.

5.4.2 *Consistency of Supply of Fresh Organic Produce*

Supermarkets were also found to have the most consistent annual supply of organics, with all but one respondent stocking organics all year (Figure 4.3b): yet it is possible that in order to do this, supermarkets relied more on imported produce which would adversely affect the price in-store. As with the range of produce stocked, many wholefood shops claimed not to strive for a consistent all-year supply because of the need to use imported produce, which they considered contrary to the organic ethic. Consistent availability is an important factor because, according to Ross (1990), it is another major determinant of demand for organics.

5.4.3 *Effect of Region on Supply and Availability*

Analysis of the retailer surveys revealed no significant variations (with $P > .05$) in the level of availability of organics according to the region in which the retail outlets were situated (Table 4.2). This result contradicted the belief that northern-situated retailers would suffer from limited availability because of the difficulty in recruiting suppliers from their locality. Similarly,

the spread of organic suppliers in the South East was expected to be reflected in a greater availability of organics in retail outlets of that region. Both theories were based on the beliefs surrounding regional distribution of organic farming in England and Wales, since vindicated by Murphy (1992). The lack of regional variation could have been attributed to various factors: for example, it may be that the number of organic suppliers in Great Britain has become less localised to particular regions. Lack of regional variation between supermarkets could be attributed to the majority of stores who took their organic produce from a central distribution outlet and not from local sources (Figures 4.11), rendering variations in availability unlikely.

5.4.4 *Prices of Organics Paid by Retailers*

In Chapter 1 it was proposed that the organic prices charged by supermarkets are considerably higher than those charged by wholefood shops. However, the results of the retailer survey found that although supermarkets charged marginally more for their organics compared with wholefood shops, the differential was **not** significant with $P > .05$ (Table 4.9). This result contradicts the claims of Woodham (1991) and Erlichman (1992) who assert that supermarkets pass the cost of their organic stocking policies onto customers, rendering their prices unjustifiably high. Interestingly, this result also contradicts the views of wholefood shops when asked to compare their organic prices with those of supermarkets: 68% of these respondents believed their organic prices were less than those of supermarkets (Figure 4.9). By contrast, only 21% of supermarkets thought their organic prices were higher than those of wholefood shops. It is possible that this lack of knowledge of operations between organic retailers has a negative impact on the market.

5.4.5 *Effect of Region on Organic Price*

No significant variations (with $P > .05$) were discovered in the price of organics according to the regional situation of wholefood shops and supermarkets (Table 4.10). It was proposed that variations in the extent of organic agriculture undertaken in different parts of the country would affect the availability and therefore the price of organics. However this result proves that price, like availability, is a country-wide issue whose significance was not necessarily confined to particular regions or areas.

5.4.6 *Wastage*

Analysis revealed that in general, supermarkets have significantly more wastage ($P > .001$) than wholefood shops (Table 4.12). This was consistent with the result which concerned the supply policy of supermarkets (see "*Fresh Produce Selection*"), whereby a maximum amount of produce was displayed in store irrespective of demand fluctuations. The result also vindicates the claims of Woodham (1991) and Erlichman (1992), that the stocking policies of supermarkets create high levels of organic wastage. It was not clear whether the low wastage enjoyed by wholefood shops was a result of more consistent demand for organics or merely a reflection of the small business's ability to control its stock more effectively than a large one.

5.4.7 *Supermarket Source and Origin of Fresh Organic Produce*

In Chapter 1 it was proposed that the use of imported organics by retailers affects the price and freshness of the produce. In the retailer survey, it was found that a slender majority of supermarkets stocked organic produce of which more than half was British in origin (Figure 4.11). In 16% of supermarkets meanwhile, more than half the produce stocked was imported. In terms of source of produce however, only 1% of supermarkets claimed to use local sources, while a substantial 83% sourced their produce from a distribution centre (Figure 4.11a). The claims that supermarket organic produce undergoes a substantial amount of processing and transportation (Woodham 1991, Erlichman 1992) appear to be vindicated by these results.

5.5 **Results Pertaining to Retailers' Opinions**

5.5.1 *Niche Market Responses*

There was no significant link (with $P > .05$) between the type of retailer and whether or not he/she believed the organic market to be a niche market (Table 4.17). This was contrary to expectations, where it was believed that a greater proportion of supermarket respondents would agree with this question than would wholefood shop respondents because the former come into contact with a wider cross-section of the public from day to day. It is encouraging to find that the majority of supermarket respondents believed that organics do not appeal solely to a specialised section of the public. Yet this optimism must be tempered with the scepticism demonstrated by a proportion of non-buyers for buyers' motivations in the general public

survey (Figure 4.29b). For these non-buyers, the appeal of organics is confined to a particular section of society who buy for reasons to which they cannot relate. The apparent optimism of retailers in response to this and other questions in this section may be due to a reluctance to admit to the researcher to being part of a stagnant or declining market. Alternatively, positiveness may be the result of an attempt by the respondent to please the researcher, a response similar in nature to those discussed under "*Purchasing Behaviour*". It should be noted that the impersonal nature of the mail questionnaire employed for the retailer survey renders this explanation less likely.

5.5.2 *Retailer Attitudes towards Organic Market Status*

Although a marginally greater proportion of supermarket respondents believed the organic market to be growing in comparison with wholefood shop respondents (Table 4.14), it is notable that overall, a slim majority of respondents within each retailer type believed the market was expanding (Figure 4.15). Analysis of the wholefood shop survey showed a significant difference in attitude between northern and southern retailers: significantly more of the northern retailers believed the market to be in decline compared with their southern counterparts. This result is **not** consistent with information concerning the geographical spread of the recession, where it is believed that the most severe effects have been incurred in regions classed as "*southern*" for this research. Neither does the northern respondents' view coincide with responses to price and availability of produce, where no regional variations were shown to exist.

5.5.3 *The Relative Importance of Organic Market Barriers*

It was proposed that wholefood shop respondents would perceive different market barriers to supermarkets, the assumption being based on two factors: first, that as the scale of wholefood shops' operations are much smaller, wholefood shop respondents, being owners or managers of these shops, would feel organic market fluctuations more keenly than the produce managers responding to the supermarket survey. Secondly, as wholefood shop respondents showed more personal interest in the subject of organics (based on evidence from pre-survey interviews of both retailer types in Edinburgh), it was proposed that they would be more aware of all the issues involved. Traditionally, wholefood shops have been beset by problems of irregular supply (Lampkin and Stopes 1989), yet in this survey, the greatest proportion of wholefood shops (65%) indicated that the high price of organics was a barrier to the market (Figure 4.17a). Within this consensus, a proportion of wholefood shop respondents did feel that lack of

government support for organics was a primary or secondary reason, but viewed as a whole, the result of the wholefood shop survey here contradicted the theories proposed in Chapter 1. Price was also seen to be a barrier by the majority (79%) of supermarkets (Figure 4.17b), and this result is consistent with the theory that supermarket stocking policies create premiums high enough to pose a threat to demand (Woodham 1991). It is perhaps ironic that high price is seen to be the major barrier when it could be viewed as a symptom of an inadequate supply structure. Nevertheless, many retailers of all types pointed out the reciprocity which existed between all the barriers given in the questionnaire: they stressed the importance of looking at the problem in its entirety, not of focusing on merely one or two issues.

5.5.4 *The Use of Cooperatives among Farm Shops*

An interesting paradox arose from the results of the farm shop survey. While the greatest proportion of respondents felt that lack of government support (Figure 4.17b) was the most important barrier facing the organic market, only five claimed to be members of a cooperative. Indeed, few farm shops saw the lack of cooperatives as being a market barrier (Figure 4.17c). Such disparity between respondents' views and status is ironic given that cooperative membership is often viewed as a way in which small producers can help themselves commercially in the absence of governmental aid.

5.5.5 *Retailers' Optimism towards the Future of the Organic Market*

No significant difference was revealed between the estimations of wholefood shops and supermarkets as to how optimistic or pessimistic they felt about the future (Table 4.15). Of note, a slim majority within each retailer type claimed to be optimistic about the future for organics (Figure 4.16). Contrary to expectations, there was no significant relationship between the regional situation of the retailer and his or her optimism or pessimism (Table 4.16). This is in spite of a significant proportion of northern wholefood shops claiming the market to be in decline compared with their southern counterparts. Here, the overall positiveness of replies could be attributed to a similar cause affecting retailer responses to the question of whether or not the organic market is a niche market (see "*Niche Market Responses*"): that is, unwillingness to admit business difficulties. Alternatively, optimism in the face of ambivalent market prospects could be a reflection of the importance many retailers placed on the recession when considering their attitude towards the market. The opinion of many was that when the economy recovers there would be more opportunities for the organic market, whatever threats faced them at the time of surveying.

5.5.6 *Retailer Attitude towards the Conventional Produce Market*

It was proposed in Chapter 1 that wholefood shops, representing small specialist outlets, would have very different views on the conventional produce market compared to supermarkets, whose fresh produce business consists in the main of conventionally grown fruit and vegetables. When supermarket and wholefood shop responses to this question were analysed, a significantly greater proportion of the latter (with $P > .001$) disagreed that conventional growers are using less chemicals during cultivation (Table 4.19). This result vindicates the theory proposed and reflects the scepticism harboured by wholefood shop respondents as to the production methods of conventional growers.

5.5.7 *Retailers' Attitudes towards Competitors*

The discussion has already illuminated the disparity of views which existed between supermarket and wholefood shop retailers in response to a number of issues raised by the questionnaire. The disparity is no more apparent than in the retailers' rating of organic prices against a competitor. Here, a significant proportion of wholefood respondents claimed their store prices to be considerably lower than those of supermarkets, while a large number of supermarket respondents claimed they did not know how their organic prices compared with those of wholefood shops (Figure 4.9). It is clear that this lack of concern about competitors from one retailer type and positive hostility from another will have an effect on the future movements of the organic market.

SECTION III

6 Conclusions

This chapter describes the conclusions which can be drawn from the findings of the current research. The first section summarises the discussion of results in the previous chapter, focusing on organic buying behaviour and the operations and attitudes of organic retailers. The second section explores the implications of these findings for organic retailers and for the organic market.

6.1 Summary of Findings

1 In this study, 29% of the general public claimed to buy organic produce at some time: this proportion is below that found by Dent 1988 (32%) and the Henley Centre study 1989 (50%). It appears that the proportion of organic buyers in the general public has decreased in recent years, supporting the findings of Mintel (1991). Furthermore, only two per cent of the general public claimed to buy organics at least once per week. Thus, frequent organic buyers comprise only a very small minority of the public.

2 Organic produce was most commonly perceived to be a health food by buyers, non-buyers and retailers, confirming that the traditional association between organics and health persists today. However, the proportion of the general public actively motivated to buy organics for reasons of health was small, and this coincides with the recent absence of media-driven food scares. The higher proportion of organic buyers found by Dent (1988) and the Henley Centre (1989) did coincide with periods of media-driven food scares. It would appear that although public interest in sensible eating sustains the perception of organics as a healthy option, the presence of food scares may be necessary to inject sufficient public concern about conventional foods to actively motivate people to switch to organics.

3 Individuals who have claimed to purchase organics through concern for the environment may fall into two categories. The first comprises committed, altruistic individuals who are genuinely concerned for the environment and who value organics highly enough to purchase the produce even when their disposable income is low or when organics are not

widely perceived to be fashionable. The second category comprises those individuals whose desire for organics was fuelled by the general trend for "green" products during the mid- to late-80s. Such individuals are motivated by the perception of fashion or novelty rather than through genuine concern for the environment and, when disposable income is low and organics are not perceived to be fashionable, they cease to purchase even though they still believe that organics are environment-friendly. Such a categorisation of buyers may explain why in this study organics were widely perceived to be environment-friendly, yet only a minority of the general public were actively motivated to buy organics for this reason.

4 In terms of distinguishing organic buyers from the public, this study found evidence which both supported and contradicted the results of previous studies. Organic buyers were significantly more likely to undertake every day, activities which showed their concern for the environment. Organic buyers also had a slight tendency towards professional or clerical occupations. However, they could not be distinguished from the rest of the public neither by their age, gender, socio-economic category nor by their active interest in the ethical and health issues associated with food purchasing. As a result, in the current economic and social climate, the organic buyers which exist today may be most easily identified by their strong commitment to organics: the recession and absence of food scares may have caused the less committed organic buyers of particular demographic groups to cease purchasing.

5 According to Lavidge and Steiner (1961, cited in Kotler 1984), an individual must go through the stages of product awareness, knowledge and liking before the decision to purchase takes place. Results showed that basic public awareness and ability to define the term organic was widespread, and that the positive benefits of organics were widely appreciated (the only exception being the 9% of the general public who displayed open scepticism towards organics). The most common public definition of organics also reflected the message of supermarket promotional campaigns. However, the most comprehensive understanding of organics was possessed exclusively by organic buyers. Furthermore, results supported an important premise of marketing theory, in that organic buyers were found to have longer sources of awareness of the term organic, and were also found to have personal (friend or family) sources of awareness. So it appears that media exposure of health or environmental issues, together with the organic promotions of supermarkets, have increased public awareness and basic knowledge of organics. However, awareness and basic knowledge alone are insufficient to motivate purchase and retailers need to impart a more comprehensive knowledge about organic's benefits to achieve a greater number of purchases in their stores.

6 Results showed that "*high price*" was the most widely perceived barrier to organic purchase by retailers, buyers and non-buyers. "*Lack of availability*" was moderately viewed, and "*appearance*" was considered to be important by only a small minority of respondents. Results also indicated "*lack of perceived value*" in organics was an underrated factor, as it was found to be the second most commonly cited barrier to purchase. Although it appears that there are several organic non-buying reasons, these may be divided into two types: *lack of value* and *lack of knowledge* in organics. Individuals who cite "*high price*" and "*lack of availability*" would fall into the former category because the value they place on organics is outweighed by the financial or physical sacrifices they must undergo to purchase organics. Individuals who cite "*appearance*" would more correctly fall into the category *lack of knowledge* because if organic methods are understood, appearance will be accepted. In this study, it was not surprising to find appearance rated low as a non-buying factor because basic organic knowledge among the general public was found to be high. The renaming of non-buying reasons into *lack of value* and *lack of knowledge* has important implications for retailers, as will be shown later.

7 In general, organic retailers were optimistic about the future of the market, which contradicts the hypothesis that differences in their respective operations would lead to vastly different perceptions of the market. There were however subtle differences in the perception of the barriers to the expansion of the market. Supermarkets and greengrocers tended to pick the more "obvious" problems of high price and lack of availability, while wholefood shops and farm shops picked reasons which demonstrated an understanding of the mechanics involved: lack of cooperatives and lack of government support are deep-rooted problems while high price and lack of availability are two symptoms of a market which is experiencing difficulties. It is possible that the retailers' level of commitment towards and financial involvement in the organic market (relative to total business) is reflected in the barriers they perceive.

8 There were no significant differences between the availability and price of organics in retail outlets located in different parts of Great Britain, despite regional variances in the level of organic agriculture undertaken in the country (Murphy 1992). Thus, high price and lack of availability of organics are national problems not merely confined to particular areas of Great Britain.

11 There were significant differences between the operations of supermarkets and wholefood shops. Supermarkets incurred significantly higher amounts of organic wastage than did wholefood shops, and their prices were frequently higher in comparison to wholefood shops (although the difference was not significant). These results support the claims of Woodham (1991) and Erlichman (1992) who accuse supermarkets of wasteful, and occasionally expensive stocking policies. However, supermarkets believe that many of their customers are uninformed about organics and that a wide and consistent range of produce is necessary to attract these customers. In terms of the organic market therefore, the impact of supermarkets has been double-edged: on one hand their stocking policies are wasteful and contrary to the organic ethos, yet on the other they have created awareness and demand for organics across a new section of the general public as a result of their wider customer base.

12 The results have confirmed that the customer bases and operation levels of supermarkets and wholefood shops are quite different. Supermarkets have a broad-based clientele which consists of a large proportion of customers not committed to or knowledgeable about organics, whereas wholefood shop customers, in general, are favourably disposed towards organics. In addition, supermarkets have the buying power to ensure maximum consistent availability of organics in their stores, while wholefood shops experience more difficulty in the area of logistics. These differences lead to quite different marketing problems. For supermarkets, who can ensure consistent availability of produce, the main difficulty is in creating the motivation to purchase among largely uncommitted customers. In contrast, wholefood shops, whose customers are already well motivated to buy, experience their greatest difficulty in ensuring that adequate produce reaches the shelves. The following section considers the implications of the different customer bases of wholefood shops and supermarkets.

6.2 Implications of Findings for Organic Retailers

Two different types of retailer have been identified by this research according to customer base: retailers with wide customer bases (supermarkets, greengrocers) and those with more specialised clientele (wholefood shops, farm shops). These customer differences have important implications for predicting the effect of social and economic impacts on the demand for organics.

6.2.1 *Retailers with a wide customer base*

It has been concluded that in general, supermarket and greengrocer customers are less knowledgeable about and less committed to organics compared with the customers of wholefood shops and farm shops. These characteristics imply that supermarket and greengrocer customers are more susceptible to circumstantial impacts on organic demand such as recession, food scares and general interest in green issues than are the customers of specialist outlets. Therefore, the demand for organics in these outlets may be viewed as follows:

In the early 1980s, lack of mainstream interest in green issues and relatively few instances of food scares meant that food multiples (with the exception of Safeway) and non-specialist greengrocers perceived no advantage in stocking organics. Sales of organics outside specialist outlets were negligible.

During the mid-1980s, greater interest in green issues and concern for food safety coincided with increased awareness and value in the benefits of organics, while high disposable income kept the financial sacrifice involved in purchasing the produce to a minimum. Rapid organic sales growth was experienced in supermarkets and greengrocers. The food multiples themselves contributed to the growth in demand by stocking wide, attractive ranges of organic produce which combatted non-buying reasons such as appearance, while merchandising campaigns created greater awareness and knowledge among their wide customer base.

By 1992, the effects of the recession had increased the financial barrier, thus individuals were obliged to place a higher value on the benefits of organics to be motivated to purchase the produce. Yet a lack of food scares and a lull in the trend for green products removed two important bases of organic value, thus the demand for organics in supermarkets and greengrocers subsided. Although basic knowledge about organics remained widespread among non-buyers, organic benefits were not valued sufficiently thus the obstacles of limited availability and high price reduced the likelihood of converting non-buyers' behaviour.

In future, significant changes in the level of demand for organics in supermarkets and greengrocers will continue to depend on circumstantial factors. First, the presence of food scares and the level of active interest in green products will regulate the value customers place on organics. Secondly, the amount of disposable income individuals perceive themselves to have, and the inconvenience caused by lack of availability of organics will be weighed up against the perceived benefits of organics. The decision by supermarket and greengrocer customers to purchase or to avoid organics will be the result of a trade-off between the changing benefits and sacrifices they perceive in buying organic produce.

6.2.2 *Retailers with a Specialised Customer Base*

In general, the customers of wholefood shops and farm shops are particularly knowledgeable about organics: as such, the high price is more likely to be understood and inconsistencies in availability are more likely to be accepted in these outlets than in supermarkets and greengrocers. In addition, customers value the benefits of organics, which further minimises their perception of high cost and inconvenience as purchase barriers. As such, the demand for organics in specialist outlets may be interpreted in the following way:

In the early 1980s, the majority of organic sales went through specialist outlets, as food safety and environmental safeguarding had yet to become issues of general public concern. During the mid- to late-80s, organic sales growth was less dramatic in farms shops and wholefood shops than in supermarkets and greengrocers: as the majority of specialist customers already perceived health and environmental benefits in purchasing organics, a major conversion of attitudes, values and buying behaviour did not take place. However, supermarkets' involvement in the organic market at this time increased public interest which combined with high levels of disposable income to increase the volume of organics sold in specialist outlets.

By 1992, the absence of food scares and an overload of green products have not adversely affected the demand for organics in farm shops and wholefood shops to the same extent as that experienced in outlets with a wider customer base. In the former types of outlet, customer commitment to the health and environmental benefits of organics stems from long-term, personally-derived principles. The recession has had some effect in decreasing the volume of organics sold because despite valuing organic benefits highly, there is a price limit beyond which even wholefood shop and farm shop customers cannot go.

Future developments in the areas of food scares and general interest in green issues will not have a substantial effect on the demand for organics in wholefood shops and farm shops. Demand will remain steady, because customers value the benefits they perceive in organics. New custom in specialist outlets may be generated by a general increase in the level of knowledge about organics: if individuals value organics enough they will be prepared to change their shopping habits in order to buy it, which may involve frequenting specialist outlets.

6.3 Implications for the Strategies of Organic Supermarkets

In this section, attention is focused on supermarket organic strategies because of the buying power and wide customer base of these outlets. In the past, the strategy adopted by supermarkets to increase the demand for organics in their stores appears to have been two-pronged:

1. *The creation of awareness, knowledge and liking for organics with point of sale merchandising.* To date, supermarket merchandising campaigns for organics have centred on a description of the product as additive-free, and results from this study suggest that they have been successful in creating this level of knowledge and awareness among their broad-based clientele. However, the purpose of merchandising is also to create a preference for organics among customers, and in Chapter 1 it was noted that the underlying message of supermarket merchandising has been to imply that organics are environment-friendly. Yet current levels of willingness to act on concern for green issues were later shown to be quite low among the general public. Therefore, "green" merchandising, although useful in encouraging a label for organics, is perhaps not the most effective to cause a change in consumer buying patterns. Alternative promotional messages which supermarkets could employ include improved taste and health. However, results show that taste was perceived to be only a supplementary benefit of organics, and a host of problems present themselves in relation to the promotion of the health benefits of organics. For example, organic health benefits are not scientifically proven, thus supermarkets would be unable to promote these explicitly. In addition, the insistence that organic produce is healthy implies that conventionally grown produce is unhealthy, thereby undermining the credibility of the remainder of a supermarket's stock. Finally, it appears that however widespread the perception is of organics as a healthy option, mass health-motivated demand for organics will only occur during food scares. Given that the health benefits of organics are not scientifically proven and are related to fear, environmental benefits now less novel and fashionable, and that taste benefits are only supplementary, the effective promotion of organics is a difficult issue.

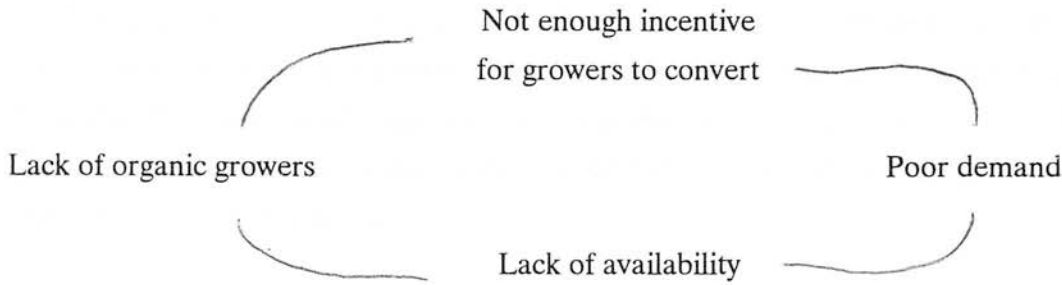
2. *Adjustments in the price and availability of organics in store.* Supermarkets, in view of their broad-based clientele, believe that they must supply a wide, consistent and visually attractive range of organics in order to encourage purchase. They also feel that if organic prices are kept to a minimum, purchase will be encouraged. Yet despite a wide variety of organic produce being displayed on shelves, sales of organics are not reaching predicted levels. These outcomes may be explained by Baker's concept of value (1986): thus, although adjustments in organic stock and pricing may increase the volume of organics purchased by those who already appreciate the benefits of organics, such tactics are less likely to convert the customers who perceive no value in organics at all. In order to convince the latter set of customers, value needs to be engendered. Yet the previous paragraph has concluded that non-buyers may not be attracted to the current "green" messages of supermarket organic campaigns. Thus it appears that many supermarket customers are unaffected by both tools which supermarkets employ as part of their strategy for organics.

The principal implication for retailers arising from this discussion is that although the promotional efforts of supermarkets may increase awareness and knowledge of organics, and the pricing and stocking tactics may increase the volume sold across existing organic buyers, the actual conversion of non-buyers is often initiated by extraneous factors: in the past, these have been media- or societally driven (food scares, the "green" revolution). It is these factors which inject the necessary urgency to turn preference and liking into purchase. Thus, while retailer-driven strategies may increase the **depth** of demand for organics among existing buyers, a significant **expansion** of the market base (ie conversion of non-buyers) requires a serendipitous occurrence. An obvious, but crucial footnote to this implication is that retailers have less control over extraneous factors than they have over their own strategic tools. For example, although some supermarkets contributed to the creation of the demand for green products, the series of food scares which took place in the late 80s was driven by factors outwith the control of supermarkets. This lack of control implies that mass demand for organics is something which supermarkets may be able to accommodate, but are not necessarily able to motivate.

6.4 Implications for the Future of the Organic Market

The discussion in this section has explored some of the societal and retailer-driven factors which have influenced organic demand. In the discussion of supermarkets above, it has been shown how some factors, such as public willingness to act upon concern for the environment and the presence of food scares, are outwith the control of the direct participants of the organic market. Often, it is these factors which create the motivation to purchase organics because they cause people to value organics. Other factors, such as the high price and lack of availability of

organics, can to some extent be controlled by the food multiples, but adjustments in these factors will only increase the sales of organics among those who already value the produce. The future impacts of these and other factors will be considered: first though, the current nature of the organic market should be explored. The survey results found that many organic retailers perceived the problems facing the organic market to be inter-related or cyclical. These may be illustrated as follows:



Based on the mechanics of supply and demand, this diagram represents a circle of problems. The basic lack of domestic organic growers leads to a lack of availability and, occasionally, high organic prices in retail outlets. People are dissuaded from purchasing the produce because prices are high and availability is inconsistent. In turn, conventional farmers do not perceive sufficient growth in demand to warrant conversion to organic methods, thus the number of organic growers remaining is small. In the past, societal and retailer-driven initiatives have threatened to break this circle of problems. For example, a series of food scares created sufficient demand for organics to motivate conventional farmers to convert. In addition, the commitment of supermarkets to a "green" ethos led some to stock organics on a wide basis, which gave non-organic growers an incentive to convert. Currently however, a lack of food scares and public unwillingness to act on concern for the environment (amongst other issues) maintain the circle. In future, they may break or reinforce the chain of problems. The following section explores in turn the supply and demand driven factors which may have a future impact on the market.

6.5 Supply Driven Factors

6.5.1 *Future Impact of the Government*

Currently, governmental attitudes towards the organic industry are ambivalent. Results from this study showed that many retailers believed that lack of government support is a major barrier to the expansion of the market. If organic growers were given a greater incentive to convert, they would increase in number leading to an increase in availability and lower organic

prices. As such, a change in governmental policy could break the circle of supply and demand, but whether it would ensure long-term growth of the market would depend on whether the benefits of organics continued to be perceived by the public.

A second future impact of the government could be in the area of legislation. For example, pre-testing of the retailer survey highlighted the fact that there is no current requirement for conventional growers to state the additives in their produce, and for retailers to display these on their shelves. If they were required to, demand for organics may increase because customers would have to confront the basis on which they choose between organic and conventional produce. The benefits of organics would become more obvious at point of sale, with the possibility that customers would come to value these more. As a result, growth in the organic market could be a possibility.

6.5.2 *Future Impact of Retailers*

The entrance of food multiples into the organic market has undoubtedly increased awareness, knowledge and sales of organics. However, this study has argued that although supermarkets have been instrumental in creating organic awareness and knowledge, organic purchases have come about as a result of extraneous factors. Nevertheless, the presence of organics in supermarkets has been clearly very important in increasing organic sales even if the motivation to buy has come from other sources. As such, any change in the organic-stocking policies of supermarkets will have a major impact on the future of the organic market. A decline in commitment from these retailers will not only reduce the likelihood of sustaining the current levels of organic awareness and knowledge, the inability of the public to find organics in supermarkets would reduce sales: clearly, supermarket customers would have to value organics very highly to seek the produce out in specialist outlets they would not otherwise visit. To conclude, the involvement of supermarkets may help to sustain organic demand by making it more easily available to a wider section of the public, but their presence in the market cannot ensure long term growth in demand because organic buyers' motivations to purchase are driven by other sources. These are considered next.

6.6 Demand Driven Factors

6.6.1 *Impact of Social Trends*

In the past, general public interest in healthy eating and the level of concern about the environment have been linked to the rise in demand for organic produce. The results from this study suggested that these factors have been important in creating a positive perception of organics among the public. Yet because the current rate of organic purchases proved to be minimal, the importance of these trends in actively stimulating demand for organics is in question. In future therefore, these "mega-trends" will possibly provide the cultural backdrop on which individual perceptions of organics will be based, though actual motivation to buy organics will come from more pointed and direct sources.

6.6 *Impact of the Media*

In the past, food scares and the fashion trend for green products have been cited as organic demand stimulating factors. However, the findings of this study have indicated that such factors create short-lived buying behaviour because the motivations behind the purchases are often based on negative or self-oriented motivations. Thus food scares created the motivation to buy organic through fear of alternatives, while the trend for green products stimulated the demand for organics for reasons of fashion. In future, either a rejuvenation in the trend for environment-friendly products or a new series of food scares could temporarily stimulate the demand for organics among the general public. However, given the abbreviated nature of such factors, long term growth of the organic market cannot be expected from either of these sources.

To conclude, the efforts of the organic industry may help to increase awareness and knowledge about organics, and the efforts of supermarkets in this area are particularly important in view of the wide customer bases they enjoy. Nevertheless, the motivation to purchase organic appears to come from sources outwith the control of the industry, and thus far, such sources have provided only short-term organic buying behaviour. It appears that neither the efforts of the organic industry nor the effects of the media alone are sufficient to sustain long-term organic demand. Governmental or legislative changes appear necessary to break the circle of poor supply and lack of demand. A financial boost to domestic growers may create greater organic availability and lower prices: thus the chain would be broken from the supply side of the market. Alternatively, a change in legislation for conventional produce may cause people to value the benefits of organics, causing the vicious circle to be broken from the demand side of the market.

6.7 For Further Research

This research has found that the current organic market has not reached the size confidently predicted by previous studies. Although in 1992 organics were widely perceived to be healthy and environment-friendly, results suggested that for many people, the motivation to buy organics has come as a result of fear or fashion. In addition, the reasons why people did not buy organic were concluded to be either through a lack of knowledge or a lack of value in organics. Finally, organic retailers, by virtue of their size and customer bases, were found to be facing quite different marketing problems. In view of this information, the final section of this study has explored the way in which industrial and extraneous factors may impact upon the organic market and organic retailers in the future. However, to gain a better understanding of how the future demand for organics will fluctuate, the following issues need to be addressed:

1 *What will be the future involvement of supermarkets in the organic market?* Already it appears that some chains are reducing their levels of commitment to the produce, and this will clearly have an impact on the availability of the produce and on the levels of public awareness and knowledge about organics.

2 *What will be the impact of low-input produce?* If this low-cost, less extreme alternative to organics is received positively, supermarkets and greengrocers are likely to stock it in preference to organics because less logistical problems would be involved and appearance would be more consistent: as a result, less wastage would be incurred. In addition, prices would be lower, although benefits similar to those of organics would be offered to the consumer. If low-input produce is taken up and supermarkets abandon their authentic organic lines, this may restrict organics to specialist outlets and so return the organic market to a state similar to that which existed before the mid-1980s.

3 *How do different types of organic grower impact on the growth of the market?* The operations of organic growers who have entered the market subsequent to its rapid growth may impact on demand. Before the organic market "boom" period of the mid-80s, growers were typified by their personal commitment to organic methods (Lampkin and Stopes 1989). When the huge potential demand for organics became recognised however, many farmers switched from conventional production primarily through the perception of a business opportunity rather than through a commitment to organic cultivation itself (Daw *et al* 1990, Boyle *et al* 1991). Therefore, the current population of British organic growers consists of a large number of essentially profit-driven farmers. It is possible that the involvement of profit-driven farmers in the organic market has increased the availability of organics in retail outlets because of the experience these farmers have in adopting a professional approach to marketing their produce.

However, with the recent stagnation in the growth of the organic market (Erlichman 1992), it is also possible that primarily business-oriented farmers are quicker to abandon their organic operations than those who are personally committed to the use of organic methods.

4 At what point does interest in organics become sufficient to motivate purchase? An important conclusion of this research is that consumers undergo a process from product awareness to knowledge to liking to purchase. From this, it would be desirable for retailers to know the point at which the decision to purchase organics is triggered. A second issue for investigation is that of the mental trade-off between the price and value of organics. At what point do the benefits of organics become sufficiently valuable to outweigh the financial sacrifice?

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THE EDINBURGH SCHOOL OF AGRICULTURE

ORGANIC PRODUCE MARKETING SURVEY

SUPERMARKET QUESTIONNAIRE : IN CONFIDENCE

For all questions, please tick appropriate box, or write in answer as indicated

CodeNo

1 Please indicate your job title:

- Store manager
 Produce manager
 Other (Specify)

For office use only

2 Do you yourself come into regular contact with the customers who shop in your store?

- Yes No

3 For how many years have you been stocking organic produce?

- 5 or more Less than 5 Less than 3

4 Can you please indicate the organic fruit & veg you normally stock in an average year?
 (If there is any item not listed here, please add it underneath):

- | | | | |
|----------|--------------------------|------------|--------------------------|
| Potatoes | <input type="checkbox"/> | Apples | <input type="checkbox"/> |
| Broccoli | <input type="checkbox"/> | Oranges | <input type="checkbox"/> |
| Onions | <input type="checkbox"/> | Lemons | <input type="checkbox"/> |
| Swedes | <input type="checkbox"/> | Grapefruit | <input type="checkbox"/> |
| Peppers | <input type="checkbox"/> | Leeks | <input type="checkbox"/> |
| Carrots | <input type="checkbox"/> | Cabbage | <input type="checkbox"/> |
| Garlic | <input type="checkbox"/> | Celery | <input type="checkbox"/> |
| Tomatoes | <input type="checkbox"/> | Lettuce | <input type="checkbox"/> |

5 For how long in the year do you stock organic fruit and vegetables?

- All Year
 Summer Only
 Other (Please estimate how long):

6 Please indicate if you stock any of the following produce in organic form:
 (If there is any item not listed here, please add it underneath):

- | | | | | | |
|---------|--------------------------|---------------|--------------------------|-----------------|--------------------------|
| Milk | <input type="checkbox"/> | Porridge Oats | <input type="checkbox"/> | Prepared Salads | <input type="checkbox"/> |
| Yoghurt | <input type="checkbox"/> | Muesli | <input type="checkbox"/> | Processed Meals | <input type="checkbox"/> |
| Cheese | <input type="checkbox"/> | Flour | <input type="checkbox"/> | Eggs | <input type="checkbox"/> |
| Butter | <input type="checkbox"/> | Bread | <input type="checkbox"/> | Meat | <input type="checkbox"/> |

7 Please indicate, in order of importance, the main reasons why your customers buy organics in your store (1=most important; 2=second most important...):

- Concern for own health
 Concern for family's health
 Taste
 Novelty (ie, buying to treat themselves)
 Concern for environment
 Other (Please specify)

8 Please indicate, in order of importance, the main reasons why people do NOT buy organic produce:

- Too expensive
- Put off by appearance of organic produce
- Lack of knowledge/interest in organics
- Others (Specify)

9 Please consider the following scale of importance:

- 1 Unimportant
- 2 Not very important
- 3 Neither important nor unimportant
- 4 Quite important
- 5 Extremely important

A How important would you rate the factor of price in the customer's decision whether or not to buy organic? (please circle appropriate number):

1 2 3 4 5

B How important would you rate the factor of product appearance in the customer's decision whether or not to buy organic?

1 2 3 4 5

10 Can you please estimate your average weekly turnover in organics? (Pounds Sterling)

- < 20 < 500 > 3000
- < 50 < 1000
- < 100 < 3000

11 In general, how much more do you have to pay for organic produce compared with what you would pay for conventional?

- 100% or more
- 50% or more
- Less than 50%
- No premium (Please go to Q13)

12 What, in your opinion, is the most important factor influencing the price you have to pay for organic produce?

- Organic process itself
- Lack of availability
- Lack of government support
- Other (specify):

13 In comparison with whole food shop prices for organics, do you believe your organic prices are...

- Less expensive?
- More expensive?
- About the same?
- Don't know?

14 Where do you purchase organic food?

- Distribution center (location?) _____
- Other (specify) _____
- _____

14 (a) Do you have any information where the produce comes from?

Great Britain %

Imported %

15 IF YOU HAVE STOCKED ORGANICS FOR 3 YEARS OR MORE:

This year, compared to 2-3 years ago, has your supply of organics...

Increased?

Decreased?

Stayed the same? (Please go to question 16)

15(a) What, in your opinion, is the main reason for increasing/decreasing supply?

Demand has been increasing/decreasing (delete)

Produce has become more/less expensive (delete)

Produce has become more/less available (delete)

Other (specify)

16 How does your company assure your produce is certified organic?

Trust supplier

Produce is marked organic (without symbol)

Produce has a recognised symbol

(Please specify symbol(s):

Other

17 On average, for every batch of fresh organic produce you stock, what % is wastage?

50% or more

25% or more

10% or more

Negligible wastage

18 What do you think are the main problems in selling two conflict products (eg organic and conventional carrots) at the same time?

19 How are your staff trained to explain the differences between organic and conventional produce to customer?

during the general training

special 'organic' training

no training

20 How do you display organic produce?

Fresh produce in 'organic' labeled shelves

Dairy and other organic produce in between the conventional food

All organic produce separate (Goto Q 22)

other (specify)

In Germany, one supermarket chain decided to introduce a 'Store in Store' for organic produce, other chains try to separate the organics in so called 'Bio Corners'.

21 Do you think separating organic produce would attract more buyers for organic produce in your store?

Yes No

Any comments?

22 Do you advertise organic produce?

For office use only

No Yes (if yes, where?)

The next set of questions relates to the whole market, including all customers, retailers and suppliers, unless specified.

23 In general, would you describe the market (in terms of consumer demand) for fresh organic produce as being...

In decline? Static? In a state of growth?

24 How would you describe how you feel about the market prospects for organics for the next 2-3 years? Are you

Optimistic?
Pessimistic?
Neither optimistic nor pessimistic?

25 What do you think is the GREATEST barrier to market expansion?

Lack of consumer knowledge about organics Price of organic produce
 Lack of government support for organic farms Lack of availability
 Lack of marketing co-operatives and wholesalers Other (Please specify):

26 Please read the following statements and say whether you agree or disagree with them according to the following scale:

- 1 Strongly agree
- 2 Agree
- 3 Neither agree nor disagree
- 4 Disagree
- 5 Strongly disagree

"The market for organic produce is a niche market - that is, organics can only appeal to a specialised section of the public"

1 2 3 4 5

"The majority of people buy organic to be green"

1 2 3 4 5

"Widespread media attention given to food safety has a direct influence on the demand for organics"

1 2 3 4 5

"The concern for artificial additives in food is as much as it was 2-3 years ago"

1 2 3 4 5

"In general, producers are using less artificial chemicals on conventional produce today"

1 2 3 4 5

Thank you very much for your time and cooperation - please feel free to make any additional comments on the organic market, or on your customer's perceptions. All comments will be treated in the strictest confidence.

Please return this questionnaire in the prepaid envelope provided.

THE EDINBURGH SCHOOL OF AGRICULTURE

ORGANIC PRODUCE MARKETING SURVEY

WHOLEFOOD SHOP QUESTIONNAIRE - IN CONFIDENCE

For all questions, please tick appropriate box.

CodeNo

1 Please indicate your job title:

- Shop owner
 Shop manager
 Other (Specify)

For office use only

2 Do you yourself come into regular contact with the customers who shop in your store?

- Yes No

3 For how many years have you been stocking organic produce?

- 5 or more Less than 5 Less than 3

4 Can you please indicate the organic fruit & veg you normally stock in an average year?
 (If there is any item not listed here, please add it underneath):

- | | | | |
|----------|--------------------------|------------|--------------------------|
| Potatoes | <input type="checkbox"/> | Apples | <input type="checkbox"/> |
| Broccoli | <input type="checkbox"/> | Oranges | <input type="checkbox"/> |
| Onions | <input type="checkbox"/> | Lemons | <input type="checkbox"/> |
| Swedes | <input type="checkbox"/> | Grapefruit | <input type="checkbox"/> |
| Peppers | <input type="checkbox"/> | Leeks | <input type="checkbox"/> |
| Carrots | <input type="checkbox"/> | Cabbage | <input type="checkbox"/> |
| Garlic | <input type="checkbox"/> | Celery | <input type="checkbox"/> |
| Tomatoes | <input type="checkbox"/> | Lettuce | <input type="checkbox"/> |

5 For how long in the year do you stock organic fruit and vegetables?

- All Year
 Summer Only
 Other (Please estimate how long):

6 Please indicate if you stock any of the following produce in organic form:
 (If there is any item not listed here, please add it underneath):

- | | | | | | |
|---------|--------------------------|---------------|--------------------------|-------|--------------------------|
| Milk | <input type="checkbox"/> | Porridge Oats | <input type="checkbox"/> | Bread | <input type="checkbox"/> |
| Yoghurt | <input type="checkbox"/> | Muesli | <input type="checkbox"/> | Meat | <input type="checkbox"/> |
| Cheese | <input type="checkbox"/> | Flour | <input type="checkbox"/> | Eggs | <input type="checkbox"/> |

7 Please indicate, in order of importance, the main reasons why your customers buy organics in your store (1=most important; 2=second most important...):

- Concern for own health
 Concern for family's health
 Taste
 Novelty (ie, buying to treat themselves)
 Concern for environment
 Other (Please specify)

8 Please indicate, in order of importance, the main reasons why people do NOT buy organic produce:

- Too expensive
- Put off by appearance of organic produce
- Lack of knowledge/interest in organics
- Others (Specify)

9 Can you please indicate if the following types of customer are frequent shoppers in your store:

- Students
- OAPs
- Housewives/mothers

10 Please consider the following scale of importance:

- 1 Unimportant
- 2 Not very important
- 3 Neither important nor unimportant
- 4 Quite important
- 5 Extremely important

A How important would you rate the factor of price in the customer's decision whether or not to buy organic? (please circle appropriate number):

1 2 3 4 5

B How important would you rate the factor of product appearance in the customer's decision whether or not to buy organic?

1 2 3 4 5

11 In general, how much more do you have to pay for organic produce compared with what you would pay for conventional?

- 100% or more
- 50% or more
- Less than 50%
- No premium (Please go to Q13)

12 What, in your opinion, is the most important factor influencing the price you have to pay for organic produce?

- Organic process itself
- Lack of availability
- Lack of government support for org. farms
- Other (specify):

13 In comparison with supermarket prices for organics, do you believe your organic prices are...

- Less expensive?
- More expensive?
- About the same?
- Don't know?

14 Can you please list the % of organic produce you get from each of your sources/suppliers?

	Fresh	Dairy	Dried	Bread	Meat/Eggs
Local farmers	%	%	%	%	%
OFF	%	%	%	%	%
OF&G	%	%	%	%	%
Geest	%	%	%	%	%
Don't know	%	%	%	%	%
Other (specify)	%	%	%	%	%

--	--	--	--	--

15 IF YOU HAVE STOCKED ORGANICS FOR 3 YEARS OR MORE:
This year, compared to 2-3 years ago, has your supply of organics...

- Increased?
- Decreased?
- Stayed the same? (Please go to question 16)

15(a) What, in your opinion, is the main reason for increasing/decreasing supply?

- Demand has been /decreasing (delete)
- Produce has become more/less expensive (delete)
- Produce has become more/less available (delete)
- Other (specify)

16 How do you assure your produce is certified organic?

- Trust supplier
- Produce is marked organic (without symbol)
- Produce has a recognised symbol (Please specify symbol(s)):
- Other

The next set of questions relates to the whole market, including all customers, retailers and suppliers, unless specified.

17 On average, for every batch of fresh organic produce you stock, what % is wastage?

- 50% or more
- 25% or more
- Less than 25%
- Negligible wastage

18 In general, would you describe the market (in terms of consumer demand) for fresh organic produce as being...

- In decline? Static? In a state of growth?

19 How would you describe how you feel about the market prospects for organics for the next 2-3 years? Are you

- Optimistic?
- Pessimistic?
- Neither optimistic nor pessimistic?

20 What do you think is the GREATEST barrier to market expansion?

- (34) Lack of consumer knowledge about organics
 (35) Lack of government support for organic farms
 (36) Lack of marketing cooperatives and wholesalers

- Price of organic produce
 Lack of availability
 Other (Please specify):

21 Please read the following statements and say whether you agree or disagree with them according to the following scale:

- 1 Strongly agree
 2 Agree
 3 Neither agree nor disagree
 4 Disagree
 5 Strongly disagree

"The market for organic produce is a niche market - that is, organics can only appeal to a specialised section of the public"

1 2 3 4 5

"The majority of people buy organic to be green"

1 2 3 4 5

"Widespread media attention given to food safety has a direct influence on the demand for organics"

1 2 3 4 5

"The concern for artificial additives in food is as much as it was 2-3 years ago"

1 2 3 4 5

"In general, producers are using less artificial chemicals on conventional produce today"

1 2 3 4 5

Thank you very much for your time and cooperation - please feel free to make any additional comments on the organic market, or on your customer's perceptions in the space below. All comments will be treated in the strictest confidence.

Please return this questionnaire in the prepaid envelope provided.

THE EDINBURGH SCHOOL OF AGRICULTURE

ORGANIC PRODUCE MARKETING SURVEY

GROCER QUESTIONNAIRE : IN CONFIDENCE

For all questions, please tick appropriate box.

CodeNo

1 Please indicate your job title:

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- Shop owner
 Shop manager
 Other (Specify)

2 Do you yourself come into regular contact with the customers who shop in your store?

- Yes No

3 For how many years have you been stocking organic produce?

- 5 or more Less than 5 Less than 3

4 Can you please indicate the organic fruit & veg you normally stock in an average year?
 (If there is any item not listed here, please add it underneath):

- | | |
|-----------------------------------|-------------------------------------|
| Potatoes <input type="checkbox"/> | Apples <input type="checkbox"/> |
| Broccoli <input type="checkbox"/> | Oranges <input type="checkbox"/> |
| Onions <input type="checkbox"/> | Lemons <input type="checkbox"/> |
| Swedes <input type="checkbox"/> | Grapefruit <input type="checkbox"/> |
| Peppers <input type="checkbox"/> | Leeks <input type="checkbox"/> |
| Carrots <input type="checkbox"/> | Cabbage <input type="checkbox"/> |
| Garlic <input type="checkbox"/> | Celery <input type="checkbox"/> |
| Tomatoes <input type="checkbox"/> | Lettuce <input type="checkbox"/> |

5 When you stock organic produce, do you label it as organic on the shelf?

- Yes No

6 In an average year, for how many weeks do you stock organic produce?

- 4 or less 8 or less More than 8

7 When you stock organic produce, do you ever stock equivalent "conventional" produce alongside?

- Yes No

8 Please indicate, in order of importance, the main reasons why you think people would want to buy organic produce (1 = most important; 2 = second most important...):

- Concerned for own health
 Concerned for family's health
 Taste
 Novelty (ie, buying to treat themselves)
 Concern for environment
 Other (Please specify)

9 Please indicate, in order of importance, the main reasons why people do NOT buy organic produce:

- Organics are too expensive
- Off-putting appearance of organics
- Happy with "conventional" produce
- Other (Please Specify):

10 Can you please indicate if the following types of customer are frequent shoppers in your store:

- Students
- OAPs
- Housewives/mothers

11 Do customers ever ask you for organic produce when they do not see it on the shelves?

- Yes No (Please go to Q12)

11A Would you say these inquiries were...

- Very Frequent? (On a daily basis)
- Frequent? (A few inquiries per week)
- Occasional? (A few inquiries per month)

12 Please consider the following scale of importance:

- 1 Unimportant
- 2 Not very important
- 3 Neither important nor unimportant
- 4 Quite important
- 5 Extremely important

A How important would you rate the factor of price in the customer's decision whether or not to buy organic? (please circle appropriate number):

1 2 3 4 5

B How important would you rate the factor of product appearance in the customer's decision whether or not to buy organic? (please circle appropriate number):

1 2 3 4 5

13 In general, (not specifying any particular item of organic produce), how much more (in %) must you pay your supplier for organic produce compared with the equivalent conventional produce?

- 100% or more
- 50% or more
- 25% or more
- Less than 25%

14 In comparison to supermarket prices for organics, do you believe your organic prices are...

- Less expensive?
- More expensive?
- About the same price?

15 Can you please list the % of organic produce you get from each of your sources/suppliers?

- Local Farmers %
- OFF %
- OF&G %
- Conventional Market %
- Don't know %
- Other (Please specify)

--	--

16 IF YOU HAVE STOCKED ORGANICS FOR 3 YEARS OR MORE:
This year, compared to 2-3 years ago, has your supply of organics...

- Increased?
- Decreased?
- Stayed the same? (Please go to question 17)

16A What is the main reason for increasing/decreasing supply?

- Demand has been increasing/decreasing (delete)
- Produce has become more/less expensive (delete)
- Produce has become more/less available (delete)
- Other (specify)

17 How do you assure your produce is certified organic?

- Trust supplier
- Produce is marked organic (without symbol)
- Produce has an official symbol (Please specify symbol(s)):
- Other

18 On average, for every batch of fresh organic produce you stock, what % is wastage?

- 50% or more
- 25% or more
- Less than 25%
- Negligible wastage

19 Compared to conventional stock, is the wastage for organics...

- More? Less? About the same?

The next set of questions relates to the whole market, including all consumers, retailers and suppliers, unless specified.

20 In general, would you describe the market for fresh organic produce as being...

- In decline Static In a state of growth?

21 How would you describe how you feel about the market prospects for organics for the next 2-3 years? Are you...

- Optimistic
- Pessimistic
- Neither optimistic nor pessimistic

22 What do you think is the GREATEST barrier to market expansion?

- | | | | |
|--------------------------|--|--------------------------|--------------------------|
| <input type="checkbox"/> | Lack of consumer knowledge about organics | <input type="checkbox"/> | Price of organic produce |
| <input type="checkbox"/> | Lack of government support for organic farms | <input type="checkbox"/> | Lack of availability |
| <input type="checkbox"/> | Lack of marketing cooperatives and wholesalers | <input type="checkbox"/> | Other (Please specify): |

23 Please read the following statements and say whether you agree or disagree with them according to the following scale:

- 1 Strongly agree
- 2 Agree
- 3 Neither agree nor disagree
- 4 Disagree
- 5 Strongly disagree

"The market for organic produce is a niche market - that is, organics can only appeal to a specialised section of the public"

1 2 3 4 5

"The majority of people buy organic to be green"

1 2 3 4 5

"Widespread media attention given to food safety has a direct influence on the demand for organics"

1 2 3 4 5

"The concern for artificial additives in food is as much as it was 2-3 years ago"

1 2 3 4 5

"In general, producers are using less artificial chemicals on conventional produce today"

1 2 3 4 5

Thank you very much for your time and cooperation - please feel free to make any additional comments on the organic market, or on your customer's perceptions in the space below. All comments will be treated in the strictest confidence.
Please return this questionnaire in the prepaid envelope provided.

THE EDINBURGH SCHOOL OF AGRICULTURE

ORGANIC PRODUCE MARKETING SURVEY

FARM AND FARM SHOP QUESTIONNAIRE : IN CONFIDENCE

For all questions, please tick appropriate box, or write in answer as indicated

CodeNo

1 What is your job title?

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2 Do you yourself come into regular contact with customers?

Yes No

3 For how many years have you been farming and selling organic produce?

farming years selling years

4 Can you please indicate the organic fruit & veg you normally sell in an average year?
(If there is any item not listed here, please add it underneath):

Potatoes	<input type="checkbox"/>	Apples	<input type="checkbox"/>
Broccoli	<input type="checkbox"/>	Oranges	<input type="checkbox"/>
Onions	<input type="checkbox"/>	Lemons	<input type="checkbox"/>
Swedes	<input type="checkbox"/>	Grapefruit	<input type="checkbox"/>
Peppers	<input type="checkbox"/>	Leeks	<input type="checkbox"/>
Carrots	<input type="checkbox"/>	Cabbage	<input type="checkbox"/>
Garlic	<input type="checkbox"/>	Celery	<input type="checkbox"/>
Tomatoes	<input type="checkbox"/>	Lettuce	<input type="checkbox"/>

5 Please indicate if you sell any of the following produce in organic form:
(If there is any item not listed here, please add it underneath):

Milk	<input type="checkbox"/>	Porridge Oats	<input type="checkbox"/>	Bread	<input type="checkbox"/>
Yoghurt	<input type="checkbox"/>	Muesli	<input type="checkbox"/>	Meat	<input type="checkbox"/>
Cheese	<input type="checkbox"/>	Flour	<input type="checkbox"/>	Eggs	<input type="checkbox"/>
_____		Wheat	<input type="checkbox"/>	_____	
_____		Rye	<input type="checkbox"/>	_____	
_____		Oats	<input type="checkbox"/>	_____	

6 Are you a member of a marketing co-operative?

Yes No

6(a) For how long in the year do you stock organic fruit and vegetables?

All Year
 Summer Only
 Other (Please estimate how long):

7 In broad terms of sale value, what proportion of your organic produce is sold

in your farm shop	_____ %
through wholesale channels (eg Organic Farm Foods (OFF))	_____ %
to other retailers (eg local shops, supermarkets)	_____ %
Other (please specify)	

8 Do you purchase organic produce for sale from sources other than your farm?

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no (go to 9) yes (if yes, can you estimate how much, in % of your total shop sales?)

 %

8(a) Can you please list the % of organic produce you get from other sources/suppliers?

	Fresh	Dairy	Dried	Bread	Meat/Eggs
other local farms	%	%	%	%	%
OFF	%	%	%	%	%
other (please specify)	%	%	%	%	%

--	--	--	--

8(b) If you buy in produce: How do you assure your produce is certified organic?

Trust supplier
 Produce is marked organic (without symbol)
 Produce has a recognised symbol
 (Please specify symbol(s):

9 How much of the farm is managed to the standards of

	Hectares	% of total enterprise
The Soil Association	_____	_____
Organic Farmers and Growers Ltd (OFG)	_____	_____
Bio-Dynamic Ag. Assoc. (Demeter)	_____	_____
other (please specify)	_____	_____
no formal standards	_____	_____

10 IF YOU HAVE STOCKED ORGANICS FOR 3 YEARS OR MORE:

This year, compared to 2-3 years ago, has your supply of organics...

Increased?
 Decreased?
 Stayed the same? (Please go to question 11)

10(a) What is the main reason for increasing/decreasing supply?

Demand has been increasing/decreasing (delete)
 Produce has become more/less expensive (delete)
 Produce has become more/less available (delete)
 Own farm has produced more/less (delete)
 Other (specify)

11 On average, for every batch of fresh organic produce you stock, what % is wastage?

50% or more
 25% or more
 Less than 25%
 Negligible wastage

12 What are the main problems in selling organic produce?

13 In comparison with supermarket prices and wholefood shop prices for organics, do you believe your organic prices are...

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supermarket prices

wholefood shop prices

Less expensive?

More expensive?

About the same?

Don't know?

14 Please indicate, in order of importance, the main reasons why your customers buy organics in your shop (1=most important; 2=second most important...):

Concern for own health

Concern for family's health

Taste

Novelty (ie, buying to treat themselves)

Concern for environment

Other (Please specify)

15 Please indicate, in order of importance, the main reasons why people do NOT buy organic produce:

Too expensive

Put off by appearance of organic produce

Lack of knowledge/interest in organics

Others (Specify)

16 Can you please indicate if the following types of customer are frequent shoppers in your store:

Students

OAPs

Housewives/Mothers

Locals/Neighbours

17 Please consider the following scale of importance:

- 1 Unimportant
- 2 Not very important
- 3 Neither important nor unimportant
- 4 Quite important
- 5 Extremely important

A In general, how important would you rate the factor of price in the customer's decision whether or not to buy organic? (please circle appropriate number):

1 2 3 4 5

B In general, how important would you rate the factor of product appearance in the customer's decision whether or not to buy organic?

1 2 3 4 5

18 In general, would you describe the market (in terms of consumer demand) for fresh organic produce as being...

In decline? Static? In a state of growth?

19 How would you describe how you feel about the market prospects for organics for the next 2-3 years? Are you

Optimistic?
 Pessimistic?
 Neither optimistic nor pessimistic?

20 What do you think is the GREATEST barrier to market expansion?

Lack of consumer knowledge about organics Price of organic produce
 Lack of government support for organic farms Lack of availability
 Lack of marketing cooperatives and wholesalers Other (Please specify):

21 Please read the following statements and say whether you agree or disagree with them according to the following scale:

- 1 Strongly agree
- 2 Agree
- 3 Neither agree nor disagree
- 4 Disagree
- 5 Strongly disagree

"The market for organic produce is a niche market - that is, organics can only appeal to a specialised section of the public"

1 2 3 4 5

"The majority of people buy organic to be green"

1 2 3 4 5

"Widespread media attention given to food safety has a direct influence on the demand for organics"

1 2 3 4 5

"The concern for artificial additives in food is as much as it was 2-3 years ago"

1 2 3 4 5

"In general, producers are using less artificial chemicals on conventional produce today"

1 2 3 4 5

Thank you very much for your time and cooperation - please feel free to make any additional comments on the organic market, or on your customer's perceptions in the space overleaf. In addition, we would greatly appreciate receiving any information on your organic prices. For example, if you have a weekly/monthly price list, we would be very grateful if you could enclose a copy of this when you send back this questionnaire. All comments and information will be treated in the strictest confidence. Please return this questionnaire in the prepaid envelope provided.

THE EDINBURGH SCHOOL OF AGRICULTURE

ORGANIC BUYER QUESTIONNAIRE: IN CONFIDENCE

For all questions, please tick appropriate box, or write in answer as indicated

(i) Are you an Edinburgh resident? Yes No

CodeNo

(ii) Are you male or female? Male Female

Q1 How important to you are so-called "green" issues, such as conservation of the environment, reduction of pollution, etc?

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Very important
 Quite important
 Unimportant (Please go to Q2)

Q1A Do you actively do anything in your day to day life as a result of your concern for the environment?

No (Please go to Q2)
 Do not run a car
 Make "green" household purchases (washing
 powders, ozone friendly products, etc)
 Recycle/buy recycled goods
 Other (Please specify):

Q1B Which of the following would you say was most influential in making you do these things?

TV/radio coverage of green issues
 Result of press article
 Advice of family member/friend
 Other (Please specify):

Q2 Do you avoid certain types of food on ethical/moral grounds? (eg battery chickens/veal)

No (Please go to Q3) Yes (Please specify):

Q2A Who/what made you decide to avoid this type of food?

Issue dealt with on TV or radio
 Result of press article
 Family member/friend
 Other (Please specify):

Q3 Is there any type of food you NOW avoid buying because you consider it harmful to your health?
 (Which you may have bought freely in the past?)

No (Please go to Q4) Yes (Please specify):

Q3A Who/what was it that made you decide to avoid buying this type of food?

TV/Radio attention paid to issue
 Result of press article
 On advice of family member/friend
 Took medical advice
 Other (Please specify):

Q4 How often do you purchase fresh fruit and vegetables?

Frequently (several times per week)
 Occasionally (several times per month)
 Seldom
 Never (Please go to Q5)

(Please tick if you are vegetarian)

Angela Tregear

The Edinburgh School Of Agriculture, 42 South Oswald Road, Edinburgh

Q4A Where do you usually buy the majority of your fresh f&v?

Wholefood/healthfood shop
Supermarket

Greengrocer
Other (Please specify):

Q4B What advantages/disadvantages do you see in buying fruit & vegetables...

(i) From a supermarket?:

(ii) From a wholefood shop/grocer?:

Q5 For how long have you been aware of the term organic?

10 years or more 5 years or more Less than 5 years

Q5A Can you remember where you first heard the term organic?

TV, radio or press coverage
Supermarket/shop promotion
From family member or friend
Other (please specify):

Q6 How often do you purchase organics? (fresh,dairy or dried)

Frequently (several times per week)
Occasionally (several times per month)
Seldom
Other (Please specify):

Q7 Where do you usually buy the majority of your organic food?

Wholefood shop
Supermarket

Greengrocer
Other (Please specify):

Q8 Do you ever buy organics from another shop?

Never
Greengrocer
Other:

Wholefood shop
Supermarket

Q9 What would you say is the MAIN reason you buy organic? (Please mark "1")

For own health
Better taste
Other (Please specify):

For family's health
compatibility with environmental concerns

Q9A Besides this reason, what else is important? (Mark 2)

Q10 In your opinion, what would you say was the MAIN reason why people do not buy organics?

Don't see a need for it
Not widely available

Too expensive
Other:

Q10 Please explain what you understand by the term organic:

Q11 Do you recognise any organic standard symbols?

No Yes (Please specify which):

Finally, could you please indicate...

(i) Your age: <18 18-25 25-35 35-45 45-55 >55

(ii) Your occupation:

Thank you for your help in completing this questionnaire - if you have any questions concerning the nature of this research, please do not hesitate to contact me.

Angela Tregear

The Edinburgh School Of Agriculture, 42 South Oswald Road, Edinburgh

THE EDINBURGH SCHOOL OF AGRICULTURE

CONSUMER QUESTIONNAIRE : IN CONFIDENCE

i) Are you over 18? Yes No

(iii) Mark gender: M F

ii) Are you currently resident in the Edinburgh area? Y N

1 How important to you are so-called "green" issues?

- Extremely important
- Quite important
- Unimportant (go to Q2)

2A Do you actively do anything in your day to day life as a result of your concern for the environment?

- No (go to Q2)
- Use car less/Have catalytic converter/lead-free petrol
- Make "green" household purchases
- Recycle/buy recycled goods
- Other (specify):

3 Do you avoid any type of food on ethical or moral grounds?

- No
- Yes (specify):

4 Is there any type of food you now avoid buying because you consider it harmful to your health?

- No
- Yes (specify):

5 How often do you purchase fresh fruit and vegetables?

- Vegetarian
- Frequently (x/p/m)
- Occasionally (x/p/m)
- Seldom
- Never

6A Do you usually buy your fresh fruit and vegetables...

- From the supermarket
- From a greengrocer/wholefood shop/small outlet
- Other (specify)

7B Do you perceive any advantages in buying fruit and veg at..

supermarket greengrocer?:

8 How long have you been aware of the term "organic"?

- 10 years or more
- 5 years or more
- Less than 5 years

9A How did you first hear of the term "organic"?

- TV, radio or press coverage
- Supermarket/shop promotion
- From family member or friend
- Other (specify):

Angela Tregear

The Edinburgh School Of Agriculture, 42 South Oswald Road, Edinburgh

6 Please answer yes or no to the following question: Have you ever bought any organic food? (fruit & veg, dairy or dried)

Yes No (Please go to Q11A)

7 When was the last time you bought organic produce?

< One week (Q8) < One month (Q8) < One year (Q8A)

8 How often do you purchase?

Frequently (x/p/m)
 Occasionally (1/p/m)
 Seldom
 One off purchase (Q9A)

8A How often did you purchase?

Frequently (x/p/m)
 Occasionally (1/p/m)
 Seldom
 One off purchase only

9 Where do you generally buy organic produce?

Supermarket
 Greengrocer
 Wholefood shop
 Farm shop
 Other:

9A Why did you decide to buy organic?

Curiosity
 Recommended by family/friend
 Attracted by media attention
 Attracted by store promos
 Medical advice
 Other:

10 Have you ever bought organics from another outlet?

No
 Supermarket
 Greengrocer
 Wholefood shop
 Other:

10A Can you remember where you bought organic produce?

Supermarket
 Greengrocer
 Wholefood shop
 Farm shop
 Other:

11 What would you say is the MAIN reason you buy organic?

Better taste
 For own health
 For family's health
 Compatible with envtl obs
 Other:

11A What is the MAIN reason why you do NOT buy organic?
 Not satisfied with product
 Product not available
 Too expensive
 Other:

12 Besides this reason, what else is important? (Mark 2)

12A Besides this, what else is important? (Mark 2)

14 In your opinion, what is the main reason for the majority of people wanting to buy organic?

Concern for health
 Compatible with environmental concerns
 Following fashion
 Other:

15 If you had to buy something organic for a friend or family member, where would be the first place you'd try?

Safeway
 Greengrocer
 Wholefood shop
 Other:

16 Can you tell me what you understand by the term organic?

Finally, could you please tell me...

18 Your age? < 18 18-25 25-35 35-45 45-55 > 55

19 your occupation?

Appendix 2 A Geographical Representation of the Retailer Surveys

It has been shown that the sample selection and data collection methods for each retailer survey varied considerably. A geographical representation of the sample sizes for each survey may prove helpful in clarifying these differences. Figure 3.1 shows the geographical spread of respondents for each retailer survey (over). It can be seen from this chart that six regions were delineated: Scotland, the North, Wales, the Midlands, the South East and the South West. This geographical "frame" was important for two reasons. These were:

1 It provided a visual record of the geographical extent covered by the chosen samples of each retailer survey. The number of respondents from each retailer survey which were contacted for each region were as follows:

	Scotland	North	Wales	Midlands	South East	South West
Wholefood Shops	5	25	13	24	7	29
Farm Shops	2	16	15	19	0	14
Supermarkets	22	26	16	27	32	29
Greengrocers	12	-	-	-	-	7

This regional breakdown of retailer survey samples for the wholefood shop and farm shop surveys shows that the proportions of respondents situated within each region varied quite considerably. Such variation reveals information about the level of availability and supply of organics. However, the regional variations of wholefood shop and farm shop samples could also be construed as detrimental to the representativeness of information obtained from these samples.

Figure 3.1 The geographical distribution of the sizes of sample populations for the retailer surveys

"Northern"

Scotland

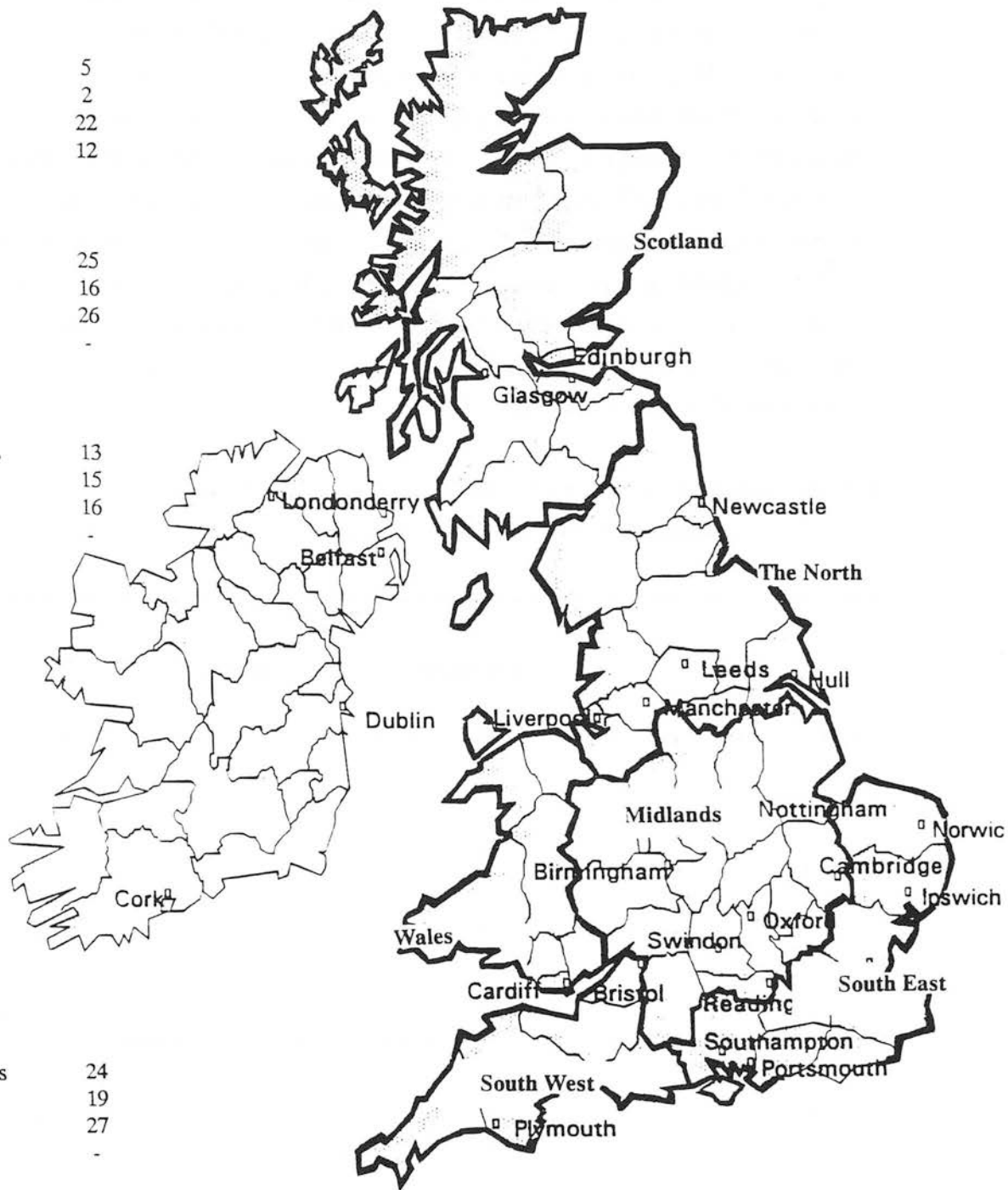
Wholefood Shops	5
Farm Shops	2
Supermarkets	22
Greengrocers	12

The North

Wholefood Shops	25
Farm Shops	16
Supermarkets	26
Greengrocers	-

Wales

Wholefood Shops	13
Farms Shops	15
Supermarkets	16
Greengrocers	-



"Southern"

Midlands

Wholefood Shops	24
Farm Shops	19
Supermarkets	27
Greengrocers	-

South East

Wholefood Shops	7
Farm Shops	0
Supermarkets	32
Greengrocers	5

South West

Wholefood Shop	29
Farm Shops	14
Supermarkets	29
Greengrocers	-

2 The actual regional boundaries delineated were related to an important hypothesis of this research. This theory proposed that the supply level and price of organics in some regions was different to that of other regions: in particular, that the supply of organics in northern regions is below that of southern regions. This belief was based on information concerning the distribution of organic farming in England and Wales (Murphy 1992), and Scotland (Daw *et al* 1991, Murphy 1992), which indicated that some regions have a greater number of organic farms and organic land than other regions. In particular, that areas falling within the boundaries of the North and Scotland have fewer organic farms and a smaller proportion of land under organic production than areas falling within the Midlands, South East and South West regions¹. The region of Wales, although boasting some areas of widespread organic farming, totals a comparable number of farms and proportion of organic land as Scotland and the North². It was proposed that such variations in distribution impact on the level of demand for organics in these areas, leaving the "*Northern*" regions (Scotland, the North and Wales) with less demand for organics than "*Southern*" regions (the Midlands, South East and South West).

After combining the six original regions into the areas "*Northern*" and "*Southern*", the proportion of retailer survey respondents falling within each region were as follows:

	"Northern"	"Southern"
Wholefood Shops	43	49
Farm Shops	33	33
Supermarkets:	64	88
Greengrocers:	12	5

Thus, it can be seen that after combining the original six regions into two northern and southern regions, the number of supermarket, wholefood shop and farm shop respondents situated within each region is less unequal.

1 Northern = 42 farms, 1060 hectares
 Scotland = 63 farms, 1900 hectares
 East/West/Midlands = 374 farms, 10420 hectares

2 Wales = 78 farms, 1200 hectares

Source: Murphy 1992 *Organic Farming as a Business in Great Britain*

Appendix 3

Retailer and Public Survey Response Rates

	Survey Total Respondents Contacted	Questionnaires Completed	Response Rate
Supermarkets	151	81	53%
Wholefood Shops	119	80	67%
Farm Shops	66	28	42%
Greengrocers	17	17	100%
General Public	242	152	63%
Organic Buyers	36	36	100%

Appendix 4

The measurement of the consensus of wholefood shops' and supermarkets' ratings of five organic buying motivations by the Kendall Coefficient of Concordance W

Measurement of Wholefood Shop Consensus

$$W = \frac{12 R^2 - 3k N(N+1)}{k^2 N(N-1) - k \sum Ti}$$

Where k = number of raters = 76

N = number of rankings = 5

R^2 = sum of rankings = 292807

$\sum Ti$ = sum of tied rankings = 252

$$\begin{aligned} W &= \frac{12(292807) - 3(76^2) 5(6)}{(76^2) 5(5^2-1) - 76(252)} \\ &= .58555 \end{aligned}$$

To test significance of W :

$$\begin{aligned} X^2 &= k(N-1)W \\ &= 76(4).58555 \\ &= 178 \text{ with 4 degrees of freedom, significant with } P > .001 \end{aligned}$$

Measurement of Supermarket Consensus

k = 80

N = 5

R^2 = 30900.5

$\sum Ti$ = 414

$$\begin{aligned} W &= \frac{12(30900.5) - 3(80^2) 5(6)}{(80^2) 5(5^2-1) - 80(414)} \\ &= .343 \end{aligned}$$

$$X^2 = 80(4).343 = 109.76, \text{ df}=4, \text{ significant with } P > .001$$

Measurement of Wholefood Shop and Supermarket Consensus

$$k = 156$$

$$N = 5$$

$$R^2 = 1155477$$

$$T_i = 666$$

$$W = \frac{12(1155477) - 3(156)^2 \cdot 5(5+1)}{(156)^2 \cdot 5(5^2-1) - 156(666)}$$
$$= .257$$

$$X^2 = 160.4, df=4, \text{ significant with } P > .001$$

It may be assumed that wholefood shops and supermarkets reached a significant degree of consensus in their ratings of five organic buying motivations.

Appendix 5

The measurement of general public respondents' length and source of organic awareness by computation of the Gamma statistic G

<u>Awareness</u>	<u>Source of Awareness</u>				<u>Total</u>
	<u>Personal</u>	<u>Job</u>	<u>Shop</u>	<u>Media</u>	
> 10 years	16	6	3	3	28
> 5 years	3	6	2	11	22
< 5 years	3	1	15	47	66
Total	22	13	20	61	166

$$G = \frac{\text{no of agreements} - \text{no of disagreements}}{\text{no of agreements} + \text{no of disagreements}}$$

$$\begin{aligned} \text{No of agreements} = \sum nijNij &= (16)(82) + (6)(75) + (3)(58) \\ &+ (3)(63) + (6)(62) + (2)(47) \\ &= 2591 \end{aligned}$$

$$\begin{aligned} \text{No of disagreements} + \sum nijNij &= (6)(6) + (3)(13) + (3)(30) \\ &+ (11)(19) + (2)(4) + (6)(3) \\ &= 400 \end{aligned}$$

$$G = \frac{2591 - 400}{2591 + 400}$$

$$= .73$$

To test significance of G :

$$\begin{aligned} z &= (G - y) \frac{\text{no of agreements} + \text{no of disagreements}}{N(1-G^2)} \\ &= (.73 - 0) \frac{(2591) + (400)}{(116) (1-.73^2)} \\ &= 5.424, \text{ significant with } P > .01 \end{aligned}$$