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*The influence of social values on consumer perceptions of food risks*

GIOVE, Samantha

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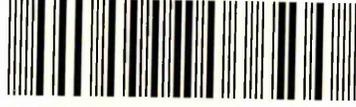
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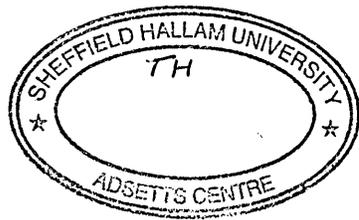
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# **The Influence of Social Values on Consumer Perceptions of Food Risks**

Samantha Giove

A thesis submitted in partial fulfilment of the requirements  
of Sheffield Hallam University for the degree of Doctor of  
Philosophy

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# ABSTRACT

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Consumers in the twenty-first century present many challenges for managers within the food industry. Consumers are everyday bombarded with choices, making decisions in respect of these involves an element of risk taking. Whilst the consequences of 'bad' choices infrequently prove to be life threatening, the values which collectively constitute a consumer's lifestyle, are potentially threatened by these day to day decisions. Consumers can both support and reinforce their lifestyle and values through selection and rejection of the products and services offered by the food industry.

This research recognises that consumers' lifestyles and values differ and investigates the implications of these differences for consumer perceptions of food risk and risk relieving / avoiding strategies for a homogeneous sample of 215 women. An eclectic approach was adopted using both quantitative and qualitative research methods.

Taylor Nelson's British based Social Value Groups as reported by MacNulty (1985) were selected as the most appropriate framework for value segmentation. A screening instrument was constructed and used to identify members of the Sustenance driven, Outer directed and Inner directed social value groups described by MacNulty (1985). The relationships between these identified social values and perceptions of food risk and risk relieving / avoiding strategies were investigated.

The findings support the view that consumers' food risk perceptions and risk avoiding strategies are influenced by their social values. Each of the three groups of consumers presented a specific portfolio of food risk perception and risk avoiding strategies. The perceptions of all three groups are important to understanding consumers' food choices. The Inner directed consumers do however present a set of values and perceptions predicted to increase. Furthermore the Inner directed values question the likely future success of traditional management and marketing strategies in the food industry.

This research is the first to provide an insight into how social values influence food risk perceptions and risk avoiding strategies. It provides a platform for beginning to develop strategies for the management of consumers' food risk perceptions. The findings identify the need for further research into Inner directed values, particularly in the context of their implications for the management of food risk perceptions in the future. Similarly findings in respect of risk avoiding strategies need to be explored further.

A significantly funded repeat of the research would be necessary to confirm the generalisability of the findings. However from a theoretical point of view it is likely that identified relationships and differences would be apparent in other sectors of the British population.

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## INTRODUCTION

---

The past fifteen years have presented many challenges for the British Food Industry. Understanding consumers' risk perceptions are amongst the most fundamental challenges of all.

The need to explain consumer risk perceptions has been recognised by many, including more recently the Institute of Food Research Reading, MAFF (1997), the Department of Health (1998) and the Food Standards Agency (2000) not least as a means of finding ways to alleviate the fears that consumers exhibit and which ultimately cause turbulence in food markets.

These most recent attempts at explaining food risk perceptions have several limitations. Firstly like those preceding them, they focus for the most part on food safety issues, as such they fail to demonstrate the diversity of consumer food risk perceptions. Secondly they fail to investigate the role that risk relieving strategies play in risk perception, furthermore a sequential ordering of risk perception and risk relief is assumed. Thirdly they are limited in their ability to address the different food risk perceptions of groups of consumers with different values and lifestyles.

The potential of these insights for exploring food risk perceptions can be seen in other and related academic fields. Within the fields of marketing and consumer behaviour Mitchell and Boustani (1992), Foxall and Goldsmith (1994) support the belief that consumers perceive a variety of risks associated with the purchasing and consuming of food. Consumers recognise that a risk may challenge not only their physical well being, but just as importantly their psychological, economic or spiritual well being.

Mitchell and McGoldrick (1996: 1), in the context of retailing, identify that the area of risk relieving strategies had been given "little attention" and describe it as a neglected area in need of further investigation.

From a background of Anthropology, Douglas teams up with Wildavsky (1982a, 1982b) suggesting that people do not focus on particular risks simply in order to protect health or safety. Fundamentally they suggest that consumers' choices also reflect beliefs and values. Douglas and Wildavsky (1982a) proposed that individuals choose what to fear and how much to fear it, in order to support and reinforce their way of life.

An examination of the literature highlights that despite its cost there is an increased enthusiasm within marketing and related fields for the use of value and lifestyle segmentation (Gunter and Furnham 1992). Recognising that no one strategy will serve all consumers, marketers acknowledge the diversity of consumers and the relationship between consumers personal characteristics and their perceptions and behaviour. The value and importance of value segmentation for investigating and increasing understanding of consumer perceptions and behaviour has few critics in marketing. Despite this, researchers of risk have not yet engaged in its use.

Where value and lifestyle segmentation has been used by researchers in a British context the tendency has been to use American value typologies to do so despite there being a British alternative in Taylor Nelson's Social Value Groups. Taylor Nelson's Social Value Group typologies offer an alternative that are based on a longitudinal empirical study of British consumers' values and lifestyles.

This piece of research proposes to address these gaps and limitations.

## **1.1 AIMS AND OBJECTIVES OF THE RESEARCH**

The overall aim of the research is to investigate and clarify how social values, as identified by Taylor Nelson and reported by MacNulty (1985), influence consumer perceptions of food risks and risk relieving strategies.

More specifically the research has the following objectives:-

1. to critically evaluate existing theoretical and empirical research, in the areas of perception of risk in general and more specifically food risk;
2. to identify members of Taylor Nelson's three Social Value Groups, 'Sustenance driven', 'Outer directed' and 'Inner directed';
3. to investigate the food risk perceptions of 'Sustenance driven', 'Outer directed' and 'Inner directed' consumers;
4. to investigate the risk relieving strategies of 'Sustenance driven', 'Outer directed' and 'Inner directed' consumers;
5. to make recommendations to the food industry, in light of the research findings.

This research aimed to be the first to use Taylor Nelson's Social Value Group typologies, as reported by MacNulty (1985), to investigate the relationship between and differences in consumers' social values and their food risk perception and food risk avoiding strategies.

## **1.2 STRUCTURE OF THESIS**

The thesis consists of seven chapters. Chapter One provides an introduction to the research. Chapter Two presents a critical review of existing theoretical and empirical research relating to consumers' social values and consumer perceptions of food risk. The review develops an integrated knowledge and understanding of the research area in question. Gaps in and limitations of the published literature are identified, a theoretical framework is set, boundaries are defined and fundamentally a frame of reference for identifying questions to be addressed in the proposed research is provided.

Chapter Three is in two parts. Part One is a methodological review focusing predominantly on those broad approaches, methods and techniques adopted in the research. Part Two details the research design and process for both the pilot and the main study (see Fig 1 for an overview of the Research Process). Chapters Four and Five present the results of the research. In Chapter Four, statistical analysis of consumers' responses to the survey questionnaire is used to test the relationships between respondent's social values, food risk perceptions and risk avoiding strategies and identifies differences between consumers with differing social value group membership. In Chapter Five analysis of the qualitative interviews provides an in-depth understanding of the findings of the quantitative results to include the motivational factors involved. Chapter Six presents an in-depth discussion of the findings in the context of the literature reviewed in Chapter Two. Limitations of the research are also reviewed in this chapter. Chapter Seven concludes the thesis by discussing the findings in the context of the objectives set in Chapter One and outlining a number of recommendations for further research.

# 1.3 RESEARCH PROCESS

(Fig 1)

<b>Pilot</b> The Screening Instrument	<b>Design, Construct and Administer</b> (pilot sample of 19). Social Value Group Screening Instrument, (based on the findings of Taylor Nelson's 'Monitor' as reported by MacNulty (1985)). <i>Latter forming Part Two of the main study questionnaire</i>	3*
	<b>Interview One</b> (sample same 19 as above) Qualitative interviews to validate the Screening Instrument and develop an in-depth understanding of the Social Value Groups.	3* 5**
<b>Pilot</b> Food Risk Perception and Risk Relieving Strategy Questionnaires	<b>Design, Construct and Administer</b> (sample as above)  Food Risk Questionnaire ( <i>Part Three of the Main Study Questionnaire</i> ). Food Risk Relieving Questionnaire ( <i>Part Four of the Main Study Questionnaire</i> ).  <i>Additional sections were piloted at this stage (but not taken forward into main study).</i>	3*
	<b>Interview Two</b> (sample comprised 9 from the pilot sample:- 3 Inner directed, 3 Outer directed, 3 Sustenance driven)  To review questionnaire responses with respect to the relationships between social values and food risk perceptions.	3* 5**
<b>Filter</b> To Obtain Sample for Main Study	<b>Administer whole questionnaire to all staff at Sheffield Hallam University.</b> 1216 returned and completed questionnaires (62%). Part One of the questionnaire was used to select members of an homogenous group. 215 respondents meet the criteria for the homogeneous sample. <i>Female, 25 - 45 years of age, in full time employment, household income &gt;£12,000pa, no dependent children</i>	3* 3*
<b>Main Study</b>  Undertaken on the Homogeneous Sample of 215 respondents	<b>Analysis of results of Part Two of the Questionnaire</b> Quantitative analysis of the screening instrument (Part Two of the questionnaire). The results of this analysis determined the categorisation of the respondents into Sustenance driven, Outer directed, Inner directed and non dominant. <i>The analysis also provided a test of the robustness of the screening instrument.</i>	4**
	<b>Analysis of results of Part Three of the Questionnaire</b> Quantitative analysis of the relationships and differences between the food risk perceptions of Sustenance driven, Outer directed and Inner directed respondents.	4**
	<b>Analysis of results of Part Four of the Questionnaire</b> Quantitative analysis of the relationships and differences between the risk relieving strategies of Sustenance driven, Outer directed and Inner directed respondents.	4**
	<b>Interview Three</b> (sample comprised 14 from homogeneous group, 6 Sustenance driven, 4 Inner directed, 4 Outer directed) Qualitative Interviews focused on Part Three and Part Four of the questionnaire.	5**
		* method ** results

## LITERATURE REVIEW

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The following chapter critically reviews both theoretical and empirical research relating to consumers' social values and consumers' perceptions of food risk. The review seeks to develop an integrated knowledge and understanding of the research area, and to generate a frame of reference for identifying the questions to be addressed in the proposed research.

Gaps and limitations in the research literature suggest that the influence of social values on the consumer perception of food risk is an area in need of further exploration, investigation and development. This is in the context of the following questions, what food risks are perceived, by whom and why, and finally how do consumers manage those risk perceptions.

The review focuses on the following key areas. Firstly the influence of social values on consumers' perceptions is examined, with an in-depth exploration of Taylor Nelson's Social Value Group typologies. The review continues with an examination of the concept of risk. Risk perceptions and risk relieving strategies are then explored as an integral part of consumer's decision making processes. This exploration is initially non specific before focusing on food.

### **2.1 SOCIAL VALUES, VARIABLES INFLUENCING CONSUMER PERCEPTIONS**

The disciplines, 'Consumer Behaviour' and 'Marketing,' express considerable interest in using the behavioural sciences, particularly social psychology and sociology, to understand consumers. Consumers' demographic, socio-economic, behavioural,

psychographic (values and lifestyles) and geographic profiles have been examined to ascertain how they may contribute to our understanding of consumer perceptions, behaviour and decision making processes.

The intangible subjectivity of social values and attitudes means that they are open to interpretation and are much more complex to use as independent variables in investigation and statistical analysis than more tangible data such as age and gender. Social values are however increasingly recognised as fundamental to understanding consumers.

Mitchell (1983: vii) believes that values and lifestyles help to explain practical and diverse questions such as, “why we support some issues and oppose others; why some people are strong leaders and others weak; why we trust some people and are suspicious of others and why some products attract us and others don’t”.

"By the term ‘values’ one mean’s the entire constellation of a person’s attitudes, beliefs, opinions, hopes, fears, prejudices, needs, desires and aspirations that, taken together govern how one behaves. One’s interior set of values - numerous, complex, overlapping, and contradictory though they are - finds holistic expression in a lifestyle" (Mitchell 1983: vii).

All definitions of value derive from the Latin word, 'valere', meaning ‘to be worth’ or ‘to be strong’. Social scientists' concept of value most closely allies itself with the worth conception, a principle, standard, course of action or quality considered useful or worthwhile. Values are central to people's lives in that they relate highly to what they prize, hold in esteem and nurture, because of this importance, “values also influence behaviour” (Kahle 1983: 14). Rokeach (1973: 79) has provided one of the most influential definitions by a social scientist, “value is an enduring belief that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence. A value system is an enduring organisation of beliefs concerning preferable modes of conduct or end - states of existence along a continuum of relative importance.”

Values are a type of social cognition. That is, values help us to know and understand our interpersonal worlds. "As primarily learned or acquired conceptions, a social cognition tells a great deal about the people that hold them" (Kahle 1983: 14).

Rokeach (1973: 76) defined values as, "desirable and enduring end states that influence both perceptions and behaviour. As desired ends, values transcend specific situations" this is supported by Kahle (1983). They provide a structural framework for existing knowledge, a basis for interpreting and incorporating new information and an abstract set of guiding principles.

There is a substantial body of theory that predicts that values shape perceptions and behaviours. The link between values and attitudes, and wants and needs has been recognised Rose et al (1994: 1504) recognised that, "social values influence the need for affiliation, which ultimately influences the relative importance attached to the display dimensions of clothing (e.g. style, brand name), versus the utilitarian properties of a garment (e.g. ease of care, durability)".

Consumers' values vary according to many factors, these include; their dominant cultural beliefs, personal experiences, integration into social organisations / institutions. Values are the result of a multitude of variables combining fundamental elements of the consumer's life. As a result they provide a base from which to develop an understanding of consumer perceptions. Any attempt to understand consumers without exploring their values would be to ignore a fundamental element of what motivates their decision making and their lifestyle.

## **2.2 SOCIAL VALUE SEGMENTATION**

Demographic and socio-economic descriptors have been commonly used in research as a way of categorising groups of consumers. This adoption is largely as a result of their presumed stability. They are also widely and easily understood, consequently they are administered and diagnosed with relative ease (this is often believed vital, particularly for

large scale consumer surveys). Despite this Bowles (1987) highlights that an increasing dissatisfaction with demographic classifications, as the sole way of describing target audiences, increasingly exists, and that their still dominant use is due to their commonality rather than their value.

Yankelovich (1964: 83); a respected author in the field of market segmentation, stated "differences in buyer attitudes, motivations, and values are more crucial to marketing objectives than demographics". Velzhoffer and Ascheberg (1999: 47) claimed that "in everyday life the same socio-economic life conditions evidently produce unequal worlds" questioning the reliability of socio-economic segmentation, this is supported by Brown (1993).

Psychographic segmentation, broadly defined as the study of values and lifestyles, is increasingly recognised as an important tool when attempting to understand, predict and even modify consumers perceptions and behaviour. Hatton (2000: 2) claims that "today, psychographic and lifestyle segmentation based approaches, are more likely to yield segments with a unique common need, which organisations can work towards satisfying". Psychographic variables are frequently used alongside more traditional segmentation variables such as demographics in attempts to adopt a multi-segmentation approach. Psychographic variables seek to describe the characteristics of consumers such as self concept, attitudes, interests, opinions, beliefs and values that may influence the manner in which consumers react to situations, products and even advertising / communication efforts (Perri 1990).

Much literature and research supports segmentation based on consumer values (Scott and Lamont 1970, Cunningham and Crissy 1972, Vinston et al 1977a, Vinston et al 1977b, Henry 1976, Munson 1979, Atlas 1984, Leach 1987, Goldsmith et al 1997, Bainbridge 1999, Kahle et al 1999, Dolliver 2000). Its use and application however still remains limited, this is despite its potential to offer much in the way of an explanation and understanding of consumer perceptions and decision making processes.

There have been several attempts to produce psychological typologies of values and lifestyles, which cover the entire active consumer population. "These systems are

purported to yield enduring psychological constructs which define the broadest consumer populations, but which also predict idiosyncratic behaviour" (Gunter and Furnham 1992: 26).

Theories, methods and typologies of values and lifestyles used in consumer research include Riesman's 'Theory on Social Character', 'The Value and Lifestyle Survey' (VALS) / Mitchell's 'The Nine American Lifestyles', The List of Values (LOV) developed in Michigan and Taylor Nelson's 'Social Value Groups'.

Riesman (1950) presents a theory of 'social character' which has had a great impact on value and lifestyle research. The theory asserts that, in general, human beings can be grouped into three major types of social character, 'Tradition-directed'; 'Inner-directed'; and Other-directed'.

Mitchell's 'The Nine American Lifestyles' (1983), developed at Stanford Research Institute, California was strongly influenced by Riesman's work. Mitchell used a survey to analyse and systematise the values and lifestyles (VALS) of Americans in such a way as to yield insights into why people believe and act as they do. VALS attempts to provide a way of looking at the dynamics of individual and societal change. The system is foremost a conceptual scheme based on the findings of developmental psychology, but, as established in field research, the approach has practical applicability. The VALS typology comprises four groups that are sub-divided into nine lifestyles. The four groups were labelled 'Need- Driven', 'Outer- Directed', 'Inner Directed' and 'Combined Outer and Inner Directed'. The nine lifestyles were given the labels; 'Survivor', 'Sustainer', 'Belonger', 'Emulator', 'Achiever', 'I Am Me', 'Experiential', 'Societally Conscious', 'Integrated'.

The List of Values (LOV) was developed by researchers at the University of Michigan Survey Research Centre (Kahle 1983; Veroff et al 1981). LOV was developed from the theoretical base of Feather's (1975), Maslow's (1970) and Rokeach's (1973) work on values in order to assess adaptation to various roles through value fulfilment and includes nine basic values of:- 'self respect', 'sense of accomplishment', 'being well respected', 'security', 'warm relationships with others', 'sense of belonging', 'fun and enjoyment in life', 'self fulfilment' and 'excitement'. When using this system Kahle (1983)

subdivided values into two dimensions: Internal and External. This division was theoretically based on the work of Rotter (1966).

With the exception of Taylor Nelson's Social Value Groups these typologies have all been designed and developed according to the values of American consumers living in the USA. In contrast Taylor Nelson Ltd, a British based company, used empirical research to identify Social Value Groups based on the contrasting values and attitudes of British consumers.

Taylor Nelson's Social Value Groups do however bear a strong resemblance to the 'Social Characters' described by Riesman in 'The Lonely Crowd' (1950), in so far as they comprise three Social Value Groups, 'Sustenance driven', 'Inner directed' and 'Outer directed'. The characteristics of Taylor Nelson's Social Value Groups are detailed in Table 2.1.

Fundamental to all of these value typologies is Motivation theory. Acknowledged in all of these typologies is Maslow's 'Hierarchy of Needs' (Maslow 1970). As a fundamental theory of motivation, Maslow's 'Hierarchy of needs' has been extensively cited and used as a frame of theoretical reference for value segmentation.

Maslow (1970) proposed that the individual has seven levels of need, he/she is motivated by these needs and must satisfy the more basic needs before he/she can give his/her attention to those higher in the hierarchy. According to Maslow, when struggling for bare survival the individual has a narrow perspective; his/her demands are for food and shelter. With industrial wealth guaranteeing economic well-being, the individual is motivated to satisfy their need for personal expression and personal freedom. At a more developed stage of the economy, the individual can afford the luxury of a social conscience; at this point altruistic concerns come to the surface.

Using Maslow's Hierarchy of Needs, MacNulty (1985) positions Taylor Nelson's three Social Value Groups, Sustenance driven, Outer directed and Inner Directed at ascending stages of the hierarchy. However, whilst Maslow's hierarchy implies that individuals only proceed to the next stage once they have satisfied needs at the lower level, Taylor Nelson's Social Value Groups often overlap thus generating groups with a combination

of values from more than one group. Despite this, Taylor Nelson's Social Value Groups clearly share Maslow's belief in the fundamental importance of motivation in understanding consumer decision making and behaviour.

MacNulty (1985: 335) reviewing Taylor Nelson's Social Value Groups stresses the importance of motivation. He suggests that consumers in different social value groups might behave in a similar 'fashion', for example "choosing to eat less", however, fundamentally their motivation is very different. The Sustenance driven consumer for example eats less because "food is so expensive", the Outer directed consumer in contrast eats less because they "want to look good" and the Inner directed consumer eats less "to feel better". This insight underlines the importance not only of exploring the perceptions of different groups but also of exploring the motivations that lie beneath them.

Taylor Nelson's typology of Social Value Groups has already been recognised as a useful conceptual tool in understanding consumer behaviour in the fields of leisure (Gratton and Taylor 1991) and Tourism (Dalen 1989). Other areas of application have included product innovation, purchasing, branding, advertising, food consumption (Nelson 1986, Skelly and Nelson 1966, Caulkin 1987, Laurence 1989), new product development (Nelson 1986), management strategy (Tame 1993), retailing (Powderly and MacNulty 1990) and organisational structures / dynamics (MacNulty 1985).

### **2.3 TAYLOR NELSON'S SOCIAL VALUE GROUPS**

By the beginning of the 1970's it was clear to Taylor Nelson Associates, a British based International Market Research Group, that their clients required additional information beyond traditional economic, technological and market research data. They needed to know how people behaved in the market place and work place, but also and perhaps most fundamentally what motivated them to make decisions and behave in the way they do. This information was increasingly recognised as fundamental to long term strategic planning for organisations.

In 1973, with an aim of meeting this need, Taylor Nelson Ltd started 'The Monitor', a longitudinal survey aimed at investigating the structure and dynamics of British society via 15,000 interviews. The programme was based on an annual survey of a national, stratified, random sample of the UK population. The survey contained questions relating to the choices and concerns of the respondents. Subsequent analysis of the data enabled the examination of attitudes and values of the population in terms of 36 trends derived from more than 160 variables which have been identified in British society (MacNulty 1985). One objective was that the Monitor system would help companies respond to changes in social values taking place across Britain at any given period of time.

The results of the monitor indicate that the British population holds values and attitudes which divide into seven groups. These groups were given the labels; 'Aimless'; 'Survivors'; 'Belongers'; 'Conspicuous Consumers'; 'Social Resisters', 'Experimentalists'; 'Self Explorer', these in turn were aggregated into three major classifications labelled as: 'Sustenance driven consumers'; 'Outer directed consumers' and 'Inner directed consumers' (MacNulty 1985). Fundamentally members of every socio-economic level were found within each Social Value Group. After examining the results of the Monitor, Laurence (1989: 123) observed that "there is almost no correlation between social value groups and the social class groups traditionally used in market research. The social value groups are equally represented in each of the A,B,C1,C2,D,E categories". MacNulty (1985) described each of the three Social Value Groups by highlighting their values and characteristic traits. These are detailed in Table 2.1.

**Table 2.1 Summary of Social Value Group Value's (Adapted from MacNulty(1985: 332-347))**

**Sustenance Driven**

- Clannish
- Motivated by the need for security
- Cling to an existing lifestyle, set in their ways, resistant to change
- Have a great respect for tradition
- Concerned to maintain the status quo, looking for tradition and stability
- Perceive change as a threat
- Lead fearful and constrained lives, risk averse
- Class conscious
- Relatively limited in the scope of their behaviour
- Tend to have somewhat narrow horizons both mentally and physically

**Outer Directed**

- Motivated by the search for esteem and status
- The criteria by which they measure their success are external to themselves
- They want to be seen to live in the *"right part of town"*, drive the *"right car"*, etc.
- Concerned about their appearance and position
- Materialistic
- Seek to improve their position in financial and social terms
- Motivated by acquisition, competition and getting ahead, being / having the best
- Traditional
- Pro-authority, support law and order
- Pushy
- Require social mobility to enjoy their lifestyles

**Inner Directed**

- Motivated by self – realisation / actualisation
- Individualistic
- Largely unconcerned about the opinion of them held by the world at large
- Their criteria for success and the standards of their behaviour are within themselves
- They usually have a broad horizon,
- A good understanding of the world's events
- Altruistic
- Concerned with social issues such as peace, ecology, social responsibility, and democratic processes which include everyone
- Likely to be concerned with spiritual values, but in a more or less orthodox way
- Caring (motives are fairness and a good quality of life at the societal level)
- Autonomous behaviour

MacNulty (1985) illustrated the contrasting values of the members of the Social Value Groups further by examining fundamental elements of their social life, these included the family, work, leisure and attitudes towards authority.

## 2.3.1 SOCIAL VALUE GROUP'S ELEMENTS OF SOCIAL LIFE

### 2.3.1.1 FAMILY

MacNulty (1985) identified *Sustenance driven* consumers as

“conservative, traditional, conventional, pragmatic and devoted to his family, which he places above other things and for which he makes substantial self sacrifice” (: 333).

“He tends to be against change and his interest in the future is to ensure his family’s security” (: 333).

MacNulty suggested that because

“horizons are constrained by orientation to the family, one also tends to be worried, pedantic and rule following” (: 333).

They believe the family unit supports their need for security and stability. Resistant to change he describes them as “clannish” (: 332). In contrast the *Outer directed* consumer’s priority is that the family be “a credit to them” (: 333).

“They are interested in their family’s appearance and behaviour....” (: 333).

MacNulty (1985) suggested that *Inner directed* consumers are

“highly individualistic”( : 334,342)

“autonomous behaviour will be a principal factor. Individual family members will tend to develop their own interests and friends outside the rather loosely defined family context. Friendship and common interests will be considered more important than (or certainly equally important as) blood relationships” (: 342)

“They reject traditional authority and established procedures, and are a powerful force for individual autonomy and the use of new relationships” (: 334)

### 2.3.1.2 WORK AND LEISURE

MacNulty (1985) suggested that *Sustenance driven* consumers

“are motivated by the need for security”( : 332)

they were frequently economically disadvantaged but even when this was not the case the Sustenance driven consumer would still remain thrifty. There is a suggestion that they perceive work as a necessity and leisure very much a luxury. MacNulty (1985) suggests that the Sustenance driven consumer will commonly,

“follow the Protestant work ethic and are deeply concerned about unemployment”( : 334)

"motive is to get along and their attitudes are those which we call 'working class values'"(: 332)

“They believe that society should provide employment”( : 336).

“They associate their employment with the notion of producing goods”( : 336).

*Outer directed* consumers are described by MacNulty as

“materialistic, pushy and motivated by seeking to improve their position in financial and social terms”( : 333).

This being the case, both work and leisure time would be fundamental to their self identity. In sharp contrast MacNulty (1987) suggested that the *Inner directed* consumers had a very different work/ leisure ethic, emphasising the attitudes of

“ caring, autonomous behaviour and self realisation(: 334)”

“individualistic, empathetic, tolerant and non-exploitative” (: 342)

Work perhaps a mechanism through which they can self express and self realise rather than just economic / material necessity or status.

“The economy will be designed to support a society which places value on.....work as a means of personal fulfilment (rather than for economic necessity), and the creative use of leisure time for individual growth” (: 341)

More emphasis is placed on the experience and less on status. Leisure emphasises self development and individual growth which may take the form of educational activities as well as leisure.

### 2.3.1.3 ATTITUDES TOWARDS AUTHORITY

MacNulty (1985) suggested that *Sustenance driven* consumers are

“conservative, traditional and conventional” (: 333)

MacNulty suggested that we might expect this group

“to be relatively limited in the scope of their behaviour” (: 333).

“Alternative courses of action and imaginative responses to new situations will be difficult” (: 333).

*Outer directed* consumers are described as respecting and trusting experts and authority but being motivated by

“status and acquisition” (: 333).

MacNulty (1985) indicates that *Inner directed* consumers exhibit autonomous behaviour.

They are further described as “less orthodox” (: 334), as having “little trust for traditional authority and importantly, very likely to be concerned with spiritual values”.

MacNulty (1985) described the Inner directed consumers as

"has broad horizons" (: 333).

“...likely to reject doctrinaire solutions in favour of the moral holistic view that change is an organic process” (: 334).

“broadest horizons, the highest tolerances and the largest propensity to solve problems on a global scale. They also have a tendency to hold spiritual values” (: 334).

MacNulty (1985) suggests that up until the 1970's the two classifications Sustenance driven and Outer directed represented a fair picture of British society. Believing that the major institutions in UK society are based on this kind of model, MacNulty (1985) presumes that there were members of the Inner directed group about, but that they were probably so few as to be statistically undetectable. That situation has now changed and the Inner directed group is regarded as being of significant importance. Taylor Nelson's findings revealed the increasing existence of 'Inner directed' consumers. In fact Inner directedness was identified as the set of social values set most likely to be dominant in the twenty first century.

The social values of the Inner directed group can also be identified in the work of Giddens (1991). Giddens (1991: 109) describes a 'universe of high modernity', in which many of the values described as 'Inner directed' by MacNulty (1985) are identified. The highly reflexive Inner directed consumer is evident in Giddens (1991) work, actively 'reskilling' i.e. reacquiring both knowledge and skills. For these individuals the 'reflexive project of the self' generates programmes of actualisation and mastery, typically aspirations of the Inner directed consumer.

## 2.4 CONSUMER PERCEPTIONS

As stated earlier in this review, Rose et al (1994) reports that there is a substantial body of theory that predicts that values shape perceptions. Consumers perceptions in turn are fundamental to understanding consumers' attitudes and behaviour.

However, despite this Foxall and Goldsmith (1994: 50) suggest that

“as with so many of the terms encountered in the social sciences, perception is used rather vaguely in everyday discourse, but must be understood more precisely if it is to be useful in explaining aspects of human behaviour”.

Harrell (1986: 7029) understands perception to mean “the process of recognising, selecting, organising, and interpreting stimuli, in order to make sense of the world around us”. “Perception of goods and services depend in part, on the stimuli to which consumers are exposed, and in part on the ways these stimuli are given meaning by consumers”. Foxall and Goldsmith (1994: 50) proposed that “Our different perceptions of products can account for different attitudes and behaviours towards products”.

Foxall and Goldsmith (1994: 51) suggest that

“two facets of perception are of special interest. First, people become aware of their environment through the five senses (see, hear, touch, taste, smell) and therefore sensation is the process with which perception begins. Equally important, and this is the second facet, is the process of interpretation which

depends on the socio-psychological meaning the individual attaches to the object perceived”

The perceptual process of food choice is complex, personal and highly selective. Foxall and Goldsmith (1994: 50) recognise this process as selective and suggest that “consumers pay attention to and interpret stimuli that reinforce and enhance their views of their world, of themselves and the goods and services that they buy”. This understanding of the way in which consumers construct and reinforce ‘world views’ through the selective perception of risk is discussed and explored further, later in this chapter.

## **2.5 RISK AND RISK PERCEPTION**

### **2.5.1 DEFINITIONS OF RISK**

A number of authors have highlighted the centrality of risk to modern life. Lupton (1999: 3) argues that “In contemporary western societies, where control over one’s life has become increasingly viewed as important, the concept of ‘risk’ is now widely used to explain deviations from the norm, misfortune and frightening events”

Giddens (1991: 3) proposed that risk is a fundamental element in modern society. “The concept of risk becomes fundamental to the way both lay actors and technical specialists organise their social world”. “To live in the universe of high modernity is to live in an environment of chance and risk”. Giddens (1991: 324) highlights a characteristic of high modernity as plurality of choice, he suggests that, “to act in and to engage with a world of plural choices is to opt for alternatives. This system inevitably presents an increased number of decisions to be made and consequently potential risks”.

Numerous attempts have been made to define risk. Beck (1992: 21) defines risk as “a systematic way of dealing with hazards and insecurities induced and introduced by modernisation itself”. Beck sees ‘risk society’ as a catastrophic society, he contends that

this factor has political potential since "averting and managing these can include a reorganisation of power and authority".

Other authors including Short (1984: 712) suggest that "risk is the probability of some future event" similarly Lowrance (1976: 7027) defined risk as, "the likelihood, or probability, of some adverse effect of a hazard". Interestingly Hohenemser *et al* (1983: 378) suggested that "hazards are a special kind of environmental event that pose threats to humans and to the things that humans value".

### **2.5.2 RISK, 'TYPES' AND CONTEXTS**

From the broadest of contexts, it is fair to suggest that when a consumer perceives that something they value is threatened they perceive risk. This is supported by Kates and Kasperson (1983: 7027) when they suggest that "hazards are threats to people and what they value and risks are measures of hazards". Risk is about perceived loss which may fall into any of the categories, "physical", 'psychological', 'social', 'finance' or 'performance'" (Kaplan. *et al* 1974: 289). Mitchell and Boustani (1992: 17) suggest that there are "several different types of risk which might affect consumers' purchasing habits. These include physical risk, financial risk, social risk, psychological risk and time risk". Foxall and Goldsmith (1994: 57) present 'performance /functional', 'financial', 'physical', 'psychological', 'social' and 'time' as types of perceived risk.

Consumer perception of risk has been investigated and reported extensively in the academic literature. Contributions to the understanding of risk perception have been informed by theoretical insights from one or more paradigms including, Sociology (Giddens 1990, 1991, Beck 1992, Lupton 1999); Anthropology (Douglas and Wildavsky 1982a 1982b); Psychology (Weinstein 1983, 1984, 1987, McKenna 1993, Hoorens and Bunk 1993, Langer 1975); Political Science (Wildavsky and Dake 1990, Dake 1991); Information and Decision Sciences (Slovic 1993, Curley 1992); Consumer Behaviour (Bauer 1967).

Areas of application have included:- nuclear power, industrial chemicals, natural disasters, medical and biological intervention and health (Slovic, et al 1979, Sparks et al 1992, Baxter 1990). Within this body of work there is a dominant interest in technological hazards and physical risk, on the whole these are analysed objectively with an aim to their quantification. By and large the 'victims' of such risks appear to be largely observed as an homogeneous 'public'. Such an approach for the most part ignores the fundamental need to recognise differences amongst the masses.

Decision theorists define 'risk' as the situation where a decision maker has a prior knowledge of both the consequences of alternatives and their probabilities of occurrence. The concept of perceived risk used by consumer researchers, however, bears a closer relationship to the concept of partial ignorance (where neither the consequences of alternatives nor their probabilities of occurrence are accurately known). In this view partial ignorance may lead to dread or/and hysteria (Slovic et al 1982, 1979) on one hand or optimistic bias (Weinstein et al 1988) on the other.

Bauer (1960: 389), proposed consumer behaviour as an, "instance of risk taking", he suggested that:

"consumer behaviour involves risk in the sense that, any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty, and some of which at least, are likely to be unpleasant"  
(Bauer 1960: 390).

Understanding perceived risk is at the heart of understanding consumers' behaviour, Bauer (1967), strongly emphasised that he, and consumer behaviour research, is concerned only with the subjective (perceived) risk and not 'real world' or 'objective risk'. This approach is particularly appropriate for the investigation of food risk perceptions, where an intimate and deeply personal relationship exists between the consumer and food choice. Mitchell (1998) suggests that perceived risk is not only present in the highly visible food scares, but also motivates and helps to explain consumers' daily and weekly food purchasing. Consumer perceptions of food risks influence consumer intention and behaviour, regardless of whether the risk is 'real' and

justified, or not. The importance of understanding why consumers perceive what they perceive cannot be understated.

### 2.5.3 RISK PERCEPTION CONSUMER SELECTION

Risk perception is increasingly recognised as an integral part of a consumer's social world. In this context Mary Douglas, a British anthropologist, and Aaron Wildavsky, an American political scientist (1982a, 1982b) examined the question: 'Why do people emphasise some risks while ignoring others?' They focused on technological risks such as the perils of nuclear waste and carcinogenic chemicals. Douglas and Wildavsky believe that societies selectively choose particular risks for attention. They suggest that societies have their own distinctive portfolio of risks, equally they suggest that each society institutionalises means for controlling / managing some risks and not others.

Douglas and Wildavsky (1982a, 1982b) claim that people do not focus on particular risks simply in order to protect health, safety or the environment. "Their choice also reflects their beliefs, values, social institutions, nature, and moral behaviour. Risks are exaggerated or minimised according to the social, cultural, and moral acceptability of the underlying activity" (Douglas and Wildavsky (1982b: 12). They believed that what societies chose to call 'risky' is largely determined by social and cultural factors, not nature.

Viewing individuals as the active organisers of their own perceptions, Wildavsky and Dake (1990, 1991), as other cultural theorists have, proposed that individuals choose what to fear and how much to fear it, in order to support their way of life. In this perspective,

"selective attention to risk, and preferences among different types of risk taking or avoiding, correspond to cultural biases, that is, to world views or ideologies entailing deeply held values and beliefs defending different patterns of social relations. Social relations are defined in their theory in terms of a small number of distinctive patterns of relationships:- 'hierarchical', 'hermit', 'fatalist', 'egalitarian', or 'individualist'" (Wildavsky and Dake 1990: 44,45)

Combinations of cultural biases and social relations are referred to in this theory as 'ways of life'. More specifically, then, 'hierarchical', 'hermit', 'fatalist', 'egalitarian', or 'individualist' forms of social relations, together with the cultural biases that justify them, are each hypothesised to engender distinctive representations of what constitutes a hazard and what does not. Among all possible risks, those selected for worry or dismissal are functional, in the sense that they strengthen one of these 'ways of life', and weaken the others. Wildavsky and Dake (1990: 44) suggest that "since cultural biases are forms of ideology, there should be high correlations between certain biases and corresponding ideologies".

Accordingly, from the perspective of cultural theory, risk is not an objective reality; instead, "the perception of risk is a social process" (Douglas and Wildavsky 1982a: 50, 1982b). Each culture, each set of shared values and supporting social institutions, is biased toward highlighting certain risks and downplaying others.

Douglas and Wildavsky focus largely on differences between societies and not on the differences between groups within those societies, Wildavsky and Dake (1990) however designed a questionnaire to focus on differences between groups within society and more specifically within American society. From a cultural theory perspective, and in relation to risks associated with, social deviance, nature and technology Wildavsky and Dake (1990) and Dake (1991) have successfully used this approach, as a basis for understanding risk perception within the United States of America. Crucially as part of this research Wildavsky and Dake (1990) tested five risk perception theories on their ability to predict and explain what kinds of people will perceive which sorts of hazards, and how dangerous they might be. The theories examined were: 'knowledge theory'; 'personality theory'; 'economic theory'; 'political theory' and 'cultural theory'. Their results confirmed that whilst there is value in all the five theories, cultural theory provides the best predictions of a broad range of perceived risk.

Wildavsky and Dake (1990) present enlightening and inspirational research. However, there are questions as to whether or not this approach can readily be transposed, to investigate consumer perceptions of food risks in a British society. These concerns are detailed later in section 2.82.

## 2.6 RISK RELIEVING STRATEGIES

Consumers are frequently presented with situations where they are required to make assessments, judgements and ultimately decisions. Giddens (1991) suggests that members of today's society will have an increasing number of decisions to make. Consumers will inevitably adopt strategies aimed at effectively managing their exposure to potential risks. Bauer (1960: 390) suggests that

"consumers characteristically develop decision strategies and ways of reducing risk, this enables them to act with relative confidence and ease in situations where their information is inadequate and the consequences of their actions are in some meaningful sense incalculable".

Knowledge of consumer's perceived risks and effective risk relieving strategy is particularly valuable in the food industry, where perceived risk can lead at worst to the failure of a product / service, and at best to the decline in sales or a damaged brand / company reputation.

"Buyers often face the dilemma of wanting to purchase a product, and yet they hesitate to buy, because it involves taking the risk of suffering some type of loss", (Roselius 1971: 56). When a buyer perceives risk in a purchase situation Roselius (1971) believes he / she will pursue one of four different strategies of risk resolution,

"reduce perceived risk by either decreasing the probability that the purchase will fail, or by reducing the severity of real or imagined loss suffered if the purchase does fail; shift from one type of loss to one for which he has tolerance; postpone the purchase, in which case he would be shifting from one general risk type to another; make the purchase and absorb the unresolved risk" (Roselius 1971: 56).

Mitchell and McGoldrick (1996: 1-3) as a result of an intensive review of the published research into consumers' risk reduction strategies, note that much research has focused on the concept of risk and its measurement. They suggest that both practitioners and academic researchers should show equal or greater interest in "how consumers 'handle'

risk and the strategies they employ to reduce it". They believe that this area has been given "little attention" and describe it as "neglected".

The orientation of published research into risk relieving strategies is on the whole one dimensional. As the words 'risk relieving / reducing strategy' suggest the assumption all too often being made in the literature is that a strategy is developed as the consequence of a risk being perceived. Furthermore, the literature on risk relieving strategies totally ignores the area of social value segmentation.

## **2.7 RISK AND TRUST**

Trust has been recognised by many authors as a fundamental issue when we are talking about risk and risk relief (O'Riordan 1982, 1983, Wildavsky 1979, Wildavsky and Dake 1990, Slovic 1993, Short 1984, Frewer et al 1995, Frewer 2000, Fife – Shaw 1995, Giddens 1991).

Giddens (1991: 3) believes that risk and trust are inextricably linked. He suggests that "in circumstances of uncertainty and multiple choice the notions of trust and risk have particular application". He suggests that "trust presumes a leap to commitment, a quality of 'faith' related to absence in time, space as well as ignorance".

Distrust can both result in or be the result of perceived risk. Understanding in whom and what consumers trust is vital if organisations are to be successful in the design, development and marketing of goods and services. Equally trust is fundamental to effective communication.

Barber (1983: 7) suggests that "trust has much to do with expectation". He selects three kinds of expectation that involve some of the fundamental meaning of trust. The most general is "expectation of the persistence and fulfilment of the natural and the moral social order. Second is expectation of technically competent role performance from those involved with us in social relationships and systems. And the third is expectation

that partners in interaction will carry out their duties in certain situations to place others interests before their own".

In its most general sense, trust means the expectations which all humans in society internalise, that the natural order both physical and biological and the moral social order will persist and be more or less realised.

Trust has been most vividly described by Luhman (1980: 4)

“Trust, in the broadest sense of confidence in one’s expectations, is a basic fact of social life. In many situations, of course, man can choose in certain respects whether or not to bestow trust. But a complete absence of trust would prevent him even from getting up in the morning. He would be prey to a vague sense of dread, to paralysing fears. He would not even be capable of formulating distrust and making that a basis for precautionary measures, since this would presuppose trust in other directions. Anything and everything would be possible. Such abrupt confrontation with the complexity of the world at its most extreme is beyond human endurance”.

Trust appears to be linked to perceptions of accuracy, knowledge and concern with public welfare. Distrust is associated with perception of deliberate distortion of information, bias and having been proven wrong in the past. Sources that are perceived to be over-accountable, or protecting a vested interest, are unlikely to be trusted.

Wildavsky and Dake (1990: 55) highlight the integral role of trust in risk perceptions. They propose that "it is not only that the facts cannot by themselves convince doubters, but that behind one set of facts are always others relating to whether business and government can be trusted".

Currently in the UK, trust in the government’s ability to manage risk appears to be at an all time low. The usefulness of value segmentation in developing a more in-depth understanding of this phenomenon needs to be explored in the broader context to include risk relieving strategies.

## **2.8 FOOD RISK, PERCEIVED FOOD RISK AND RISK RELIEVING STRATEGIES : - RESEARCH AND LIMITATIONS**

### **2.8.1 FOOD RISK RESEARCH**

Much of the research in the area of food risk perceptions has focused on public resistance to new technologies and / or the impact of food scares on food markets. The focus has been on 'real', highly visible and physical food risks such as Salmonella in eggs, Listeria in pate and certain soft cheeses, Bovine Spongiform Encephalopathy (BSE) in 'meat products', Escherichia coli (E.coli) in beef, Alar in apples, benzene in mineral water and other pathogens.

Consumer perceptions of risk in relation to food products and processes has had devastating effects on sales and marketing and on consumer confidence in the food industry in recent years. In the food products arena, BSE is the model exemplar of the impact of risk perception. At the time of the BSE outbreak evidence presented and communicated by the government denied any link between BSE and new variant CJD (Creutzfeldt Jakob Disease). Despite all of these claims, sales of beef slumped. On the 19th of December 1995 'The Guardian' newspaper reported that figures from the Meat and Livestock Commission suggested that sales of beef were down 15%. Bovril were forced to deny that its beef drink uses materials from British cows and more than 1,150 schools deleted beef from lunch menus (Arthur and Wilkie 1995). The handling of the BSE crisis resulted in low levels of consumer trust in both the Government and its agencies. This reaction forced the government to pay greater attention to the importance of risk communication strategies and over time the crisis has precipitated the creation of the Food Standards Agency.

Food Irradiation is a key example of a process which is also perceived as high risk. Extensive research prior to the legalisation of Food Irradiation, included three National

Surveys conducted by the Consumers Association (1987), the British Marketing Research Bureau (1986) and Marplan (1987). Research into the commercial feasibility of the process has also been undertaken. Findings of this research indicate that at best only 20 per cent of consumers in the UK would be willing to buy Irradiated food. Since Irradiation of food became lawful on the 1st January 1991, only one application has been made for an irradiation license. It was approved. Many manufactures and retailers of food, have recognised the negative consumer perception of irradiated food and consequently have avoided the use of the technology, despite its recognised advantages in the food safety arena.

Bord and O'Conner cited in and supported by Wildavsky and Dake (1990: 54) propose that "knowledge is inversely related to fear of technology: "having accurate knowledge about the food irradiation process translates to greater acceptance". They do add however, that fundamentally "it is not knowledge per se, but confidence in institutions and the credibility of the information that is the issue".

## **2.8.2 PERCEIVED FOOD RISK RESEARCH**

An investigation of consumer perceptions of food risk requires an acknowledgement of the broad scope and complexity of issues and consequent perspectives relating to food.

A diverse and comprehensive range of factors are acknowledged as influencing food preferences / choices. These include socio economic, educational, cultural, religious and regional, biological, physiological and psychological factors. Personal factors include familiarity, influence of other persons and meanings attached to foods. Intrinsic factors such as the organoleptic attributes of food and extrinsic factors to include advertising and merchandising. Authors such as Shepherd and Sparks (1994) acknowledge these factors as critical when attempting to develop an understanding of consumer food choices. Similarly marketers acknowledge such factors, though presented as demographic, socio-economic, geographic, behavioural and psychographic variables, all are acknowledged as potentially critical to understanding the food choices consumers

make. Similarly, and most importantly for this research, these factors influence the rejection of food by consumers.

Conner (1993: 28) recognises food choice as a complex human behaviour and suggests that "most attitudes towards food are derived from socially transmitted information". Similarly Wright (2001: 348) suggests that "taste in food reflects, in part, the consumers social and cultural origins and social ambitions".

Literature which examines the social significance of food is clearly longstanding.

Murcott (1983: 1) suggested however that "the social significance of food and eating has been left to social anthropologists, social historians, social nutritionists so-called, and other social commentators". Murcott (1983: 46) suggests that "detailed sociological investigation of popular belief systems in the face of the British 'scares' is lacking". Whilst it has been suggested that distrust of food is widespread Murcott (1983) identified that attention has tended to focus on the role of the mass media in heightening public anxiety (Beardsworth 1990; Gofton, 1990; Smith, 1991 cited in Murcott 1983). In a similar vein Murcott (1998) whilst examining the area of food choice, food scares and health, as previously, focuses on the role of the media.

Murcott (1983: 1) also points out that "sociologists, especially in Britain, have paid virtually no sustained attention" to the significance of food. Mennell (1992: 1) likewise recognised the seemingly limited attention "to food and eating as topics of serious intellectual interest". Whilst Murcott (1983, 1998), Mennell et al (1992) do go some way to address the gap, none of this is explicit to consumers perceptions of food risk and / or risk relieving strategies or consumers social values as a perspective for understanding such perceptions.

Mary Douglas, however, presents an exception, acknowledging food risk perceptions as reflections of a society's values and attitudes. A close examination of her perspective is developed in this chapter.

Whilst acknowledging the broad scope of perspectives, this literature review focuses on social values as a perspective for food risk perceptions and risk relieving strategies. A clear justification is made for this throughout this chapter.

Research into the consumer perceptions of food risks still remains limited in both scope and approach. As with research into consumer perception of risk in general, food risk research has all too often simply described different topical risks and then reported consumer views and reactions in relation to these. On the whole such research, in seeking to explain these views has failed to recognise the influence of values and lifestyles on consumer perception. This method of reporting fails to provide the food industry with the information needed to understand why consumers perceive food risks in the ways they do. If the food industry understands why some consumers perceive one food product/process as a risk and another not, strategies can be developed that aim to manage those perceptions effectively.

Research by Ford and Rennie (1987) is one example of research which simply investigates consumer views in an undifferentiated way. They investigated consumer understanding of food irradiation in 1987. The results of the survey suggested that consumers are concerned about the application of radiation to foodstuffs and in particular the potential adverse affects on health. Seventy per cent of the sample said they were not willing to purchase irradiated food, amounting to an outright rejection of the process by the vast majority of shoppers. As with the majority of this type of research, the results are expressed as the opinion of the population as a whole, thus failing to acknowledge the differences between the kind and severity of risk perceived by different groups of respondents. Ford and Rennie also make no attempt to recommend how the results of their survey may be used.

More ambitious food risk research maps a wide range of food risk perceptions using factor and cluster analysis. Mutsaers and Shepherd (1994) conducted a study using both qualitative and quantitative methodologies. They aimed to investigate which risk characteristics are important to consumers in judging food poisoning hazards in relation to other food hazards, and to investigate which consumer characteristics are crucial in risk perception of food poisoning. They concluded that

“the dimensions ‘knowledge’ and ‘concern’ were the most important risk characteristics, incorporating concerns about ‘seriousness’, ‘probability of occurrence’, ‘delayed effects’, ‘impact on future generations’, ‘dread’,

'voluntariness', 'controllability', 'clarity of benefits', 'familiarity'". (Mutsaers and Shepherd (1994: 362))

These findings mirrored those of Slovic et al (1987). Mutsaers and Shepherd recommended that knowledge and concern should be included in risk communication messages. The number of people under six years old in a household was the consumer characteristic that they believed to play a significant role in the perception of food poisoning risk. Whilst Mutsaers and Shepherd quantitatively illustrated the differences between food risks on the basis of the amount of knowledge and concern people held in relation to them, they did not differentiate between consumers, neither did they investigate why consumers have these perceptions.

There is very little food risk research that investigates how social values may influence consumer perception of food risks. British researchers Frewer et al (1994) did however modify Wildavsky and Dake's 'cultural biases questionnaire' to investigate how they may inform attitudes toward the use of biotechnology in the production of food. This research, administered by the Institute of Food Research Reading was conducted as part of a project funded by the Ministry of Agriculture, Fisheries and Food in the UK. This level of support is an illustration and an indication of the level of importance placed upon this area of research by both leading academics and industry.

In using the work of Wildavsky and Dake (1990, 1991) to inform their research, Frewer *et al* (1994) do highlight the value of using value segmentation. In investigating food risk their research is an example of the kind of research needed in this area, it is however subject to criticism. The research is limited in its scope, like a large majority of risk research the dominant interest is technological risk.

A criticism of using Wildavsky and Dake's 'cultural biases questionnaire' (1990) in the context of research into British consumers is firstly that it has its origins based on American society, to assume that the 'cultural biases' described, exist in similar form and context in Britain is to ignore the cultural differences between British and American societies. Secondly, Wildavsky and Dake concentrate on technological and environmental risks, however, many food risks do not fall into these two categories and

furthermore many food risks are intrinsically subjective as a consequence of the unique intimate relationship that exists between the consumer and his/her food. After careful consideration of the literature a third concern has emerged. It may be argued that the 'cultural biases' described by Wildavsky and Dake are a reflection of more fundamental and deeply rooted attitudes and values. These attitudes and values in turn may manifest themselves in ways other than 'cultural biases' and more specifically in ways that are much more appropriate to developing an understanding of British consumer perceptions of food risk. Finally and perhaps most important is the existence of Taylor Nelson's Social Value Groups as an alternative. Taylor Nelson's 'Monitor' presents empirical results which identify social value groups in Britain "The groups exist empirically, they are not invented by the researchers" (Laurence 1989: 123). In addition these groups have already been used successfully to investigate consumer behaviour in a number of areas to include food.

Furthermore Nelson (1986) whilst reporting the findings of 'The Monitor' has demonstrated the usefulness of using the social value groups identified as a framework for new food product development strategies. She goes on to suggest how social value group influences purchase criteria, specifically indicating the importance of branding and advertising in these processes.

Goldsmith et al (1997: 353) similarly recognise the impact of social values on food related attitudes albeit in the USA . They state that "social values represent desired end states of being or desired behaviours such as self respect, warm relations with others, or excitement. These abstract social cognitions help shape product attitudes and through them guide overt behaviour". They suggest that in the past empirical research has supported the theoretical structure of values - attitudes - behaviour, but only for a relatively few high involvement products. Their research concluded that social values were related to the consumption of snack foods independent of the effects of demographic variables, thus supporting the general thrust of Taylor Nelson's findings in the UK.

## 2.8.3 FOOD RISK RELIEVING STRATEGY RESEARCH

Mitchell and McGoldrick (1996) reviewed the literature in the area of 'Consumer risk reduction strategies. This valuable piece of work concluded that this area of research had been "neglected". Mitchell and McGoldrick (1996) identify two generic approaches to risk reduction. "One is to increase the certainty that the purchase will not fail, the other is to reduce the consequences of it failing". They suggest that by far the most common approach is to increase certainty. Mitchell and McGoldrick (1996) during their extensive review identified thirty seven risk relieving strategies from the literature. Many of these were not consumer orientated and therefore not within the scope of this research. Ten strategies were described as accounting for over 60 per cent of the strategies used in studies to date.

Table 2.2 details fifteen strategies identified by Mitchell and McGoldrick as pertinent for food retailing.

**Table 2.2 Mitchell and McGoldrick (1996) Risk Relieving Strategies**

Family and friends word of mouth	Price Information	Store Image (recognised as important when purchasing non food)
Well known brands	Packaging (information on)	Warranties/ money back guarantees
TV commercials	Trials and free samples	Shopping around
Print advertisements	Salesperson's advice	Brand loyalty
Consumer reports	Past experience	Retailer visits

(Adapted from Mitchell and McGoldrick (1996))

Roselius (1971) in a much cited piece of research, identified eleven methods for reducing / relieving different types of perceived risk, these mirrored those strategies identified and synthesised by Mitchell and McGoldrick (1996). Consumers' preferences for the eleven different methods of reducing the perceived risk were investigated via a quantitative questionnaire, the methods investigated included:- 'endorsements', 'brand loyalty', 'private

testing', 'store image', 'free sample', 'money back guarantee', 'government testing', 'shopping around', 'expensive model', 'word of mouth'. Derbaix (1983) later added sales person advice to this list. Brand and store loyalty have been the most thoroughly investigated of these strategies (Hisrich et al 1972, Cunningham 1964, Taylor and Rao 1982) and established as amongst the most effective strategies for relieving perceived risk. Word of mouth has also been recognised and investigated as a very effective risk relieving strategy (Arndt 1967, Perry & Hamm 1969).

Roselius (1971) suggests that the degree of relief anticipated from each of the relievers is influenced by the kind of loss involved and the type of consumer. He identified four types of loss as:- time, hazard, ego, money, and categorised consumers as:- high perceivers of risk, medium perceivers of risk or low perceivers of risk.

One interesting piece of research in the area of risk relieving / reducing strategy specific to food was undertaken by Mitchell and Boustani (1992). Mitchell and Boustani's research used both qualitative and quantitative methodologies. The results of their study suggested that there are five different types of risk; physical, financial, social, psychological time which affect consumers' purchasing habits. Using Roselius's risk relieving / reducing strategies, Mitchell and Boustani focused on breakfast cereals to illustrate that all products are potentially perceived to some degree as 'risky' and as a consequence consumers hunt out methods of relieving or reducing that perceived risk.

Although authors in this area of risk relieving / reducing strategies implicitly recognise that preferred risk relieving / reducing strategy is strongly influenced by the buyer's social values and attitudes, this has not been investigated explicitly or in any depth. This is an area that this research intends to explore in more depth.

## 2.9 SUMMARY

Consumer perception of food risk is now an area of research recognised by the Government and leading academics as important, but lacking both in terms of the quality and the quantity of research undertaken to date.

Many surveys have used demographic segmentation in their attempts to investigate consumer perceptions of food risk. Simply reporting generalised public perceptions, such surveys fail to analyse the reasons for these perceptions and as a result strategies aimed at managing consumer perceptions of food risk are all too often ineffective and inefficient.

Value and lifestyle variables are increasingly recognised as a valuable means by which to increase our understanding of consumers. Yet research in this area is limited in both scope and depth. To date only one attempt has been made in Britain to investigate how social values and related attitudes influence food risk perceptions. This research by Frewer et al (1994) used a modified version of Wildavsky and Dake's 'cultural biases questionnaire' (1990), (devised originally for use on American consumers) to investigate UK consumer perceptions of the risks associated with biotechnology.

In the UK, over a period of twenty five years Taylor Nelson Ltd, a British based market research company, have continuously monitored the social values and attitudes held by British consumers. Analysis of the information obtained from this twenty five year longitudinal survey, has revealed the existence in British society of seven distinct Social Value Groups, which were aggregated by Taylor Nelson into three major classifications: 'Sustenance driven consumers', 'Outer directed consumers' and 'Inner directed consumers'. Members of these Social Value Groups were found to hold distinctive sets of values, beliefs and motivations which underpin everything they do. These values and beliefs have been described in the literature.

This typology of Social Value Groups ('Sustenance driven', 'Outer directed' and 'Inner directed') has already been recognised as a useful conceptual tool in understanding

consumer behaviour in the fields of leisure (Gratton and Taylor 1991) and Tourism (Dalen 1989). However, it has only been alluded to briefly in the context of food (Nelson 1986, Dade 1988); as such this typology presents a novel and valuable opportunity to investigate the impact of social values on consumer perception of food risk in the UK. It is the stated intention of this research to do so.

It is recognised that the study of 'risk relieving strategies' is a neglected area. This research therefore also aims to investigate how Taylor Nelson's social values may influence these.

# RESEARCH METHODOLOGY AND DESIGN

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The following chapter is in two parts. Part One is a methodological review, *focusing predominantly on the broad approaches, methods and techniques used in this research*. Part Two provides detail of the research design and process for both the pilot and the main study. (Also see Fig 1 for details of the research process).

## 3.1 PART ONE. METHODOLOGICAL REVIEW

### 3.1.1 RESEARCH PARADIGMS

Risking distortion which is frequently borne of simplification, it is possible to identify two main research traditions within the social sciences. They have variously been labelled positivistic versus humanistic (Hughes 1976), positivistic versus interpretative (Giddens 1976), scientific versus humanistic (Marindale 1974) and naturalistic versus humanistic (Walker 1985) or more simply quantitative versus qualitative approaches.

Adoption of a paradigm is based on philosophical assumptions. Assumptions about Ontology, the nature of reality whether it be believed to be objective or subjective. Epistemology, the relationship of the researcher to the researched, whether they are independent or interactive. Axiological, whether there is an imposition of values, is the researcher value free and unbiased or value laden and biased. Rhetorical, what kind of language is used, spoken and written is it formal or informal. These philosophical assumptions provide the context for the methodology and the design process for the research.

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In theory, there is an assumption made that researchers should adopt the philosophy of one of the two paradigms. However increasingly it is accepted that a wealth of rich data can be obtained when a combination of the two paradigms is adopted.

### **3.1.2 THE QUALITATIVE PARADIGM**

#### **3.1.2.1 QUALITATIVE METHODOLOGY**

Bryman (1993: 131) describes the qualitative approach as, "the study of the social world which seeks to describe and analyse the culture and behaviour of humans from the point of view of those being studied". Such an approach requires the ability and preparedness of the researcher to empathise with the mind set of those being studied.

Similarly Hakim (1987: 27) describes qualitative research as:-

"being concerned with individuals own accounts of their attitudes, motivation and behaviour. It offers richly descriptive reports of individuals perceptions, attitudes, beliefs, views and feelings, the meanings and interpretations given to events and things, as well as their experiences and illuminates the motivations which connect attitudes and behaviour, the discontinuities or even contradictions between attitudes and behaviour, or how conflicting attitudes and motivations are resolved in particular choices made".

Qualitative research was described by the Research and Development Committee of the Market Research Society (1979) as, in its very essence, the discovery of basic information about the nature and elements of new or familiar or changing consumer markets that can only be provided by means of exploration and discovery.

Peterson (1994), cited in Veal (1997: 130), examined qualitative research from a marketing perspective. Peterson outlines nine purposes of qualitative research:-

- 1 to develop hypotheses concerning relevant behaviour and attitudes;
- 2 to identify the full range of issues, views and attitudes which should be pursued in large scale research;
- 3 to suggest methods for quantitative enquiry for example in terms of deciding who should be included in interview surveys;
- 4 to identify language used to address relevant issues;
- 5 to understand how a buying decision is made. Questionnaire surveys are not very good at exploring processes;
- 6 to develop new product, service or marketing strategy ideas;
- 7 to provide an initial screening of new product, service or strategy ideas;
- 8 to learn how communication received - what is understood and how processes e.g. buying decisions;
- 9 to develop a forum for brainstorming ideas, attitudes, opinions.

### **3.1.2.2 QUALITATIVE METHODS**

The three main qualitative methods available to researchers are often recognised as participant observation, (advocated by Malinowski soon after the turn of the century), individual in-depth interviews (which may be unstructured or semi-structured, in each case the interviewee is given a much freer rein than in the survey interview) and group discussions (where the group leader guides the conversation of a small group / focus group). In all cases the researcher provides minimal guidance and allows considerable latitude for interviewees.

#### **3.1.2.2.1 IN-DEPTH INTERVIEWS**

In the social sciences one of the most commonly used qualitative methods is the in-depth interview, which is unstructured, of very variable length and may be extended into repeat interviews at later dates. Although the interviewer guides the discussion, often with the help of a list of topics to ensure coverage of the area of interest, the in-depth interview

provides enough freedom for responses to steer the conversation, often highlighting issues that the interviewer may not have covered using a more structured method. The informant's world of meaning is encouraged.

The questioning should be as open ended as possible to encourage respondents to talk spontaneously about their behaviour and opinions, the questioning technique should also encourage respondents to communicate their underlying attitudes, beliefs and values.

Hoinville et al (1983: 9) suggested that "Frank discussion can be impeded in the following ways, by the respondent attempting to rationalise, a lack of awareness, fear of being shown up and over politeness". To break down these barriers the interviewer must be able to put respondents at ease and make them feel that all views and all types of behaviour, attitude, opinion are acceptable and interesting.

A relaxed and unselfconscious interviewer who is not obviously from any particular socio-economic group is most likely to succeed in establishing the necessary rapport. Interviewers must ensure they are neither condescending nor deferential, that they look at respondents often enough to convey interest without appearing dominating or intrusive, and that they are tactful in their attempts to get at the meaning of vague or evasive statements.

In-depth interviews like group discussions should be tape recorded and transcribed, so that direct quotations from the respondents can be referenced to later in results. When the focus is fairly specific in-depth interviews with 20 - 25 people would be used (Hakim 1987). The more diverse and diffused the subject the larger the number required to identify reliable clusters or patterns of attitudes and related behaviours.

### **3.1.2.3 STRENGTHS AND WEAKNESSES OF QUALITATIVE METHODS**

The great strength of qualitative research is the validity of the data obtained. Individuals are interviewed in sufficient detail for the results to be taken as true, correct, complete and believable reports of their views and experiences. In addition it provides a means of exploring the informant's world of meaning and motivation.

A weakness is that it is often expensive and as a consequence the small numbers of respondents investigated cannot be taken as representative, even if great care is taken to choose a fair cross section of the type of people who are the subject of the study.

Additionally because of the non - standardised way the data are collected, metrical analysis may be difficult or impossible. Dean et al (1967: 275) suggest that another major limitation is "the researchers use of impressionistic interpretation of the data. It contains the possibility of bias and prejudice".

### **3.1.3 QUANTITATIVE PARADIGM**

#### **3.1.3.1 QUANTITATIVE METHODOLOGY**

Quantitative methods are deeply embedded in the tradition of positivism viewing the study of society and human behaviour as scientific in the sense of the natural sciences. Positivism reveals itself in quantitative research through its particular emphasis on facts which are the products of observation, either direct or indirect. The stress on devising valid and reliable measurement procedures is especially redolent of positivism. The aim to generalise is also indicative of this approach.

Another fundamental belief shared by positivists is the view that the social and natural worlds conform to certain fixed and unalterable laws in an endless chain of causation. This view is shared by Labowitz and Hagedorn (1971). They believe that the major goal of scientific research is to establish causal laws that enable us to predict and explain

specific phenomena. To establish these laws a science must have reliable information or facts.

Mayntz et al (1976) suggest that the requirement to establish causal laws necessitates the formulation and empirical testing of explanatory theories which in turn 'tend towards a theory which is a deductively, indeed axiomatically structured system of empirically verified statements. Similarly positivism instils the requirement of reliable 'facts' leading in turn to an emphasis on rigour, objectivity and measurement.

### **3.1.3.2 QUANTITATIVE METHODS**

Typically quantitative methods are taken to be exemplified by the survey questionnaire and experimental investigation. However, others include the analysis of secondary data, structured observation and content analysis (de Vaus 1986).

#### **3.1.3.2.1 QUESTIONNAIRES**

In the social sciences the survey questionnaire is often thought of as the main method of data collection which embodies the features of quantitative research. Most survey questionnaires are based on the underlying research design of correlational or cross-sectional investigation. Bryman (1993) describes this design as meaning that the data is collected on a cross-section of people at a single point in time in order to discover the ways and degrees to which variables relate to each other.

The survey questionnaire seeks an understanding of what causes phenomenon by looking at variation in that variable across cases, and looking for other characteristics which are systematically linked with it. As such it aims to draw causal inference by a careful comparison of the various characteristics of cases (de Vaus 1986).

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Moser and Kalton (1979: 308) point out, questionnaire design is of critical importance.

“.....no matter how efficient the sample design or sophisticated the analysis, ambiguous questions will produce non - comparable answers, leading questions biased answers and vague questions vague answers.”

Moser and Kalton (1979: 308) suggest that question design "is a matter of art rather than a matter of science".

Considerations involved in formulating the questionnaire are its content, structure, format and sequence (Nachmias and Nachmias 1981).

Questionnaire design can be approached as a process which involves several steps these steps may be presented as follows:-

- 1                Specify what information will be sought
- 2                Determine type of questionnaire and method of administration

Belson (1959: 68) has shown "that prompt short, precise list questions produce a higher yield than open questions. However responses may be unusable, non-comparable or irrelevant to the study".

- 3                Determine content of individual questions
- 4                Determine form of responses to each question
- 5                Determining wording /form of each question

A question may be unreliable due to bad wording. For example a person may understand the question differently on different occasions, or different people may interpret the question differently. The language should be familiar without being ambiguous, with a glossary if appropriate. The questions should never lead the respondent. Negative questioning should be avoided as they can cause confusion. Similarly questions which are memory dependent should not be used. Prestige bias in the question can be a

problem. Because certain behaviours, characteristics and attitudes have a higher prestige value, people may distort their answers to impress the interviewer or fool themselves. The implications of an answer should never seem negative i.e. the respondent should never be made to sound or feel selfish, unethical, immoral, complacent as a result of their response. Both of these features may lead to inaccurate results. Decisions must be made with regard to whether the questions should be direct or indirect, personal or impersonal, or in open or closed formats.

- 6 Determine sequence of questions
- 7 Determine physical characteristics of questionnaire
- 8 Re - examine steps 1 - 7 and revise if necessary
- 9 Pre - test questionnaire and revise if necessary

(Adapted) Source Churchill (1987), Moser and Kalton (1979), Belson, 1985

Questionnaire design is a cyclical process involving various levels of refinement at every stage.

### **3.1.3.2.2 RESPONSE FORMAT - FORCED CHOICE USING ATTITUDE SCALES**

Thurstone (1928) recognised the possibilities in measuring attitudes. Since then scales are commonplace in attitude questionnaires. At its simplest, the scale may have only two possible answers Yes/No or Agree/Disagree. More commonly, a point scale is used. This may take several forms, verbal scales, spatial or diagrammatic scales.

“The object should be to find the way that discriminates most effectively between respondents” (Hoinville et al 1983: 9).

Osgood's semantic differential scale combines verbal and diagrammatic techniques. It consists of choosing adjectives to represent the two extremes of a continuum and asking respondents to put a mark between the two extremes. e.g.

Bad 1.....2.....3.....4.....5.....6.....7 Good

An alternative to verbal and diagrammatic scales are numerical scales where respondents are asked to assign scores or marks to indicate the level of agreement, satisfaction or whatever is being measured.

Likert scales provide people with statements and ask them to indicate how strongly they agree or disagree. No uniform view has emerged on the best number of points to include in scales. For bipolar scales odd numbers have the advantage of offering a mid-point between two poles. Five point scales are probably the most frequently used however seven or nine can also be used on the grounds that they offer more scale positions and therefore offer greater discrimination (Hoinville 1983).

Likert scales lend themselves particularly well to correlation and to multivariate analysis such as factor analyses enabling the identification of patterns determining the broad dimensions underlying the particular attitudes expressed.

### **3.1.3.3 STRENGTHS AND WEAKNESSES OF QUANTITATIVE METHODS**

The advantage of using quantitative questionnaires is that it is relatively cheap and less time consuming than other methods, particularly when the population is large.

Fundamentally, the measurement of responses allows for a multitude of possible statistical analysis.

Questionnaires particularly in the form of a mail questionnaire are however notorious for low response rates when the sample is scattered. Non - response is of fundamental

importance as it may result in an unacceptable reduction in sample size and as a result introduce bias. These issues are most crucial when the aim is to achieve a sample that is representative of a wider population (de Vaus 1986).

When the aim is not to make generalisation about the population as a whole the issue of non-response is less crucial (de Vaus 1986), however every attempt should be made to reduce non-response. An initial sample can be drawn that is larger than is needed, attention should be made to the structure and wording of the questionnaire, and to the interviewer's approach. Common sense suggests that the longer and more complex a questionnaire the lower the rate of response and the greater the risk that respondents will be heavily biased towards those with spare time, mental stamina knowledge or interest in the subject being dealt with.

Bailey (1987) suggests that questionnaires that are clear (not ambiguous) and that have clear answer options are more likely to be successful in terms of minimising non response as well as generating valid and reliable responses.

### **3.1.4 QUANTITATIVE Vs QUALITATIVE PARADIGMS**

The discussions about the nature and relative virtues of quantitative and qualitative research reveal a mixture of philosophical issues and considerations of the methods of data collection with which each of these research traditions is associated.

In early textbooks there was a clear awareness of the differences between quantitative and qualitative research. However, all of these discussions operated almost exclusively at the level of the technical adequacy of the techniques. Bryman (1993: 3) suggests that in the 1970s broader philosophical issues emerged into discussions about methods of research. "The pivotal point for much of the controversy was the appropriateness of a natural science model to the social sciences". "Much of the argument against the orthodoxy of quantitative research derived from the growing awareness and influence of phenomenological ideas, which gained a considerable following in the 1960's". It was

argued that the application of a 'scientific approach' in the form of surveys and experiments fail to take account for the differences between people.

In general, it is believed that qualitative methods allow for a more probing study of personal values, attitudes and experiences which is much more difficult to achieve when using quantitative methods. "Individuals are interviewed in sufficient detail for the results to be taken as true, correct, complete and believable reports of their views and experiences" (Hakim 1987: 27).

Walker (1985) suggests that sometimes the information required is just too subtle and too complex to be tailored to structured, standardised techniques or too detailed to be elicited by quantitative means

Hirschi and Selvin (1967) in contrast to the authors previously mentioned expressed their preference for quantitative research. They took the view that because quantitative data can be analysed statistically it is possible to examine complicated theoretical problems far more precisely than with the verbal analysis of qualitative data.

Labowitz and Hagedorn (1971) similarly support quantitative research for it's ability to identify causal links between data and recognise the strengths of quantitative methods in an aim to generate valid and reliable results.

One might suggest that quantitative and qualitative research are different ways of conducting research and that the choice between them should be made in terms of their appropriateness in answering particular research questions (epistemological). Equally one might suggest that the choice between quantitative and qualitative research is a technical decision, a view presented by Bryman (1993).

Guba and Lincoln (1982: 240) refer to quantitative and qualitative research as "resting on divergent paradigms, and hence assumptions, about the proper study of social life".

### 3.1.5 TRIANGULATION

Bryman (1993) proposed that by and large researchers have viewed the main message of the idea of triangulation as entailing a need to employ more than one method of investigation and hence more than one type of data. Within this context, quantitative and qualitative research may be perceived as different ways of examining the same research problem. By combining the two, the researcher's claims for validity of his or her conclusions are enhanced if they can be shown to provide mutual confirmation.

This eclectic approach has been adopted by many authors and researchers to include (Newby (1977), Patrick (1973), Oakley (1979), Roberts et al (1977) cited in McNeil (1990)).

If "surveys offer the bird's eye view, qualitative research offers the worm's eye view". This quote by Hakim (1987: 27) suggests inadvertently that an eclectic use of both methodologies can be advantageous in that it would give the full picture rather than just one perspective.

Veal (1997) believed the two approaches qualitative and quantitative complement each other and quantitative research should always be based on initial qualitative work.

Denzin (1970: 310) treats triangulation as an approach in which "multi-observers, theoretical perspectives, sources of data and methodologies are combined". He argues that "empirical reality is a reality of competing definitions, attitudes and personal values" he concludes that "multiple methods and theoretical approaches must be used. Four types of triangulation are proposed ;

- 1 data with respect to time, place, person and level;
- 2 between multiple observers of the same phenomenon;
- 3 between multiple theoretical perspectives with respect to the same set of objects;
- 4 methodological triangulation."

The linking of qualitative and quantitative research methods is an increasingly common one, the results of the two linked studies sometimes being presented in a single report. As mentioned in the previous section a qualitative study is often carried out before the survey, as an exploratory first step that paves the way as well as offering a greater depth of information to complement the quantitative surveys results. Alternatively or additionally the qualitative study may be carried out after the main survey, which can then provide a rich sampling frame for selecting particular types of respondent for depth interviews. These types of linkage greatly extend the survey's results, and it may be possible to set the qualitative results in a statistical context by directly linking the two sets of data.

Qualitative research can be used in combination with virtually all other types of study, it may however be a particularly fruitful element of a research programme when used to inform the interpretation of more impersonal statistical data. This approach may reduce the risk that invalid conclusions will be drawn from the researcher's untested assumptions about the motivation and processes underlying correlations in the quantitative data, the attitudinal factors underlying observed behavioural differences between sub - groups, or the range of factors that might affect change in behaviour over an interval of time.

Hakim (1987) suggested that it is already wide spread practice in policy research and market research to use triangulation. However, the idea is still treated as sufficiently novel in some academic circles.

The key argument for triangulation is that it can add qualification to research. "Different methods can also complement each other, as when a survey provides a context for qualitative work which in turn permits commentary on the findings of the survey" (Bebbington 1983: 16).

## 3.2 PART TWO. RESEARCH DESIGN AND PROCESS

A wide variety of research methods are available for collecting empirical data. It is important that one chooses the most appropriate for the research in question. The selection process for the proposed research involved consideration of:- the research objectives, the theoretical background to the research and the practical constraints imposed by external factors.

As detailed in Chapter One the overall aim of the research was to investigate and clarify how the social values, as identified by Taylor Nelson and reported by MacNulty (1985), influence consumers' perceptions of food related risk and preferred risk relieving strategies.

The research aims and objectives required that an eclectic approach be used i.e. a combination of both quantitative and qualitative techniques.

More specifically the methods chosen needed to facilitate the:-

1. Measurement of :-

Social Values	- Part Two of the main study questionnaire - The Screening Instrument
Food Risk Perceptions	- Part Three of the main study questionnaire
Risk Relieving Strategies	- Part Four of the main study questionnaire

(Part One of the questionnaire was a filter through which the main study sample was selected i.e. *women aged 25 - 45, with no dependent children, economically active, with a household income exceeding £12,000 p.a.*)

The questionnaire survey was piloted before being used in the main study.

2. Categorisation of the survey respondents into those who were predominantly:

Sustenance driven

Outer directed

Inner directed

No dominant group indicated

(Done on the basis of the social value data generated by the survey and using a set of decision rules devised for the purpose)

3. Quantitative analysis of the relationship between the social values, risk perceptions and preferred risk relieving strategies of all respondents in the main study using the data generated from the main survey (Pearson correlations and factor analysis). Data treated as interval.
4. Quantitative analysis of similarities / differences in food risk perception and preferred risk relieving strategies for the members of the three main Social Value Groups identified in 2. above (Analysis of Variance using survey data directly and using derived factor scores). Data treated as interval.
5. Qualitative interviews to establish that the rules for categorising respondents were working in practice (Interview One undertaken during the pilot stage).
6. Qualitative interviews to establish the motivations that lay behind the similarities / differences in food risk perception and risk relieving strategies for the three main Social Value Groups under investigation.  
(Interview Two on food risk perceptions only, undertaken during the pilot study)  
(Interview Three on food risk perceptions and risk relieving strategies, undertaken after the main survey)

The research process is detailed in Fig 1 Chapter One.

The remainder of this Chapter which is divided into three sections focuses on each stage of the research design / process as it happened i.e. chronologically. The first section details the design of the Social Value Group screening instrument and Interview One. The second section details the design of the Food Risk Perception and Risk Relieving Strategies parts of the questionnaire and Interview Two. The third section of this chapter provides details of the main study to include the sample and Interview Three.

### **3.2.1 SOCIAL VALUE GROUP (SVG) SCREENING INSTRUMENT (Part Two of the Questionnaire)**

#### **3.2.1.1 DESIGN OF THE SCREENING INSTRUMENT**

Part Two of the questionnaire (Appendix 1.1) was designed to measure the degree to which the respondent agreed with value statements that were inherently Inner directed, Outer directed and Sustenance driven, the ultimate aim was to categorise the respondents in relation to Taylor Nelson's three Social Value Groups.

The screening instrument was in the form of a structured, closed end questionnaire consisting of a number of value statements. The statements initially twelve in number i.e. four per Social Value Group then eighteen i.e. six per Social Value Group, highlighted the key traits of each of Taylor Nelson's Social Value Groups as identified by MacNulty (1985) (see Table 2.1 in the Literature Review)

Whilst MacNulty (1985) provided a clear description of the social values of the three Social Value Groups, it was felt there was a need to pilot the instrument to be confident of its reliability and validity, and to confirm its currency given that MacNulty's paper was published in 1985. As with Rokeach's (1960) research on dogmatism, a 'known group' of individuals was selected for the pilot. The group comprised nineteen colleagues whose social values and attitudes were broadly known by the researcher as a

consequence of workplace contact with them, to include individuals who were likely to fall into each of the three Social Value Groups.

During the pilot, the (SVG) screening instrument was refined on four occasions. This was achieved by using those respondents in the pilot who evidenced clear cut SVG orientations, as determined by the results of their initial responses to the screening instrument and the outcome of interview One, described later. This process essentially enabled the reliability of the instrument to be examined via a test and re-test method. A high degree of correspondence between respondent's answers on each occasion confirmed the reliability of the instrument.

### **3.2.1.2 USE OF THE SCREENING INSTRUMENT TO CATEGORISE RESPONDENTS INTO SOCIAL VALUE GROUPS**

When completing the screening instrument respondents were asked to indicate their responses to the statements using a five point Likert scale. In the final version of the instrument the respondents were given a score for their responses to all of the eighteen statements, receiving a score for each response as follows; Agree a lot = +2, Agree = +1, Neither Agree or Disagree = 0, Disagree = -1, Disagree a lot = -2.

The scores were summated allowing each respondent to be allocated a score for the degree to which they expressed Inner directed, Outer directed and Sustenance driven values. In the final version of the instrument the highest and lowest possible score was +/- 12 on each dimension. Respondents were then categorised into a Social Value Groups on the basis of these score profiles (See Chapter Four)

This system of awarding each respondent a score for each value dimension and categorising respondents accordingly was successfully used by Earl and Cvetkovich (1995) cited in Cvetkovich and Lofstedt (1999).

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Whilst the primary aim at this stage of the research was to design a screening instrument to identify members of Taylor Nelson's Social Value Groups, other exploratory work was undertaken during the pilot. This included an investigation into how the members of Taylor Nelson's Social Value Groups performed when responding to Rotter's Locus of Control questionnaire (Rotter 1966, 1971). The results of this work illustrated interestingly that Inner directed members of the pilot sample had an internal locus of control, whilst Sustenance driven and (though to a lesser extent) Outer directed members of the pilot group were externals.

In addition to the administration of Rotter's Locus of Control questionnaire the degree to which the respondents in the pilot perceived that they were personally at risk from related food risks compared with other members of society was explored, together with the degree to which they believed that they were personally responsible for protecting themselves against the risk they perceived they were exposed to.

Whilst these areas of further exploration were interesting and worthy of investigation they were not strictly within the scope of the research and as a result were not investigated any further in the main study.

### **3.2.2 INTERVIEW ONE**

In order to refine the screening instrument (Part Two of the questionnaire), to test the reliability of responses to it and increase its validity, in-depth interviews were undertaken with the nineteen respondents involved in the pilot. The interview took place one week after they had completed the screening instrument.

At the beginning of the interviews, interviewees were asked to comment on structure and content of the screening instrument questionnaire. They were also asked to highlight any potential areas of confusion, and suggest additional issues important to them that appeared to have been missed. This short period of time gave the interviewee time to relax a little before the interview became more focused and in - depth.

The interviewees were asked to talk in depth about their motivations, values and attitudes regarding fundamental elements of their life, to include the family, work, preferred organisational structures (working environment), leisure and attitudes towards authority. These were the areas covered by MacNulty (1985). In addition they were asked what they thought might improve their lifestyle and what made them feel good about themselves.

A relaxed informal atmosphere was created by meeting the interviewees on their own territory, a room was always used where interruptions would not occur. A conscious attempt was made to relax the interviewee, they were told there were no wrong answers and that all views, behaviour, attitudes and opinions were important and of interest. The aim of this approach was to ensure that the interviewee would feel able to speak openly and freely.

In an attempt to appear relaxed and unselfconscious the interviewer dressed smart / casual, and tried to be as approachable, agreeable, interesting, interested, enthusiastic and neutral in terms of political stance, social class and status as possible. The interviewer also tried to give support without introducing bias, and was careful about her verbal and non verbal language.

All of the interviews were recorded and latter transcribed. This meant that it was easy to go back and verify points, find quotations to support theories, and more generally to avoid biased reporting arising from too much reliance on first impressions and memory.

### 3.2.3 RESULTS OF PILOTING THE (SVG) SCREENING

#### INSTRUMENT (Part Two of the Questionnaire) AND INTERVIEW ONE

During the pilot the screening instrument successfully identified dominant members of each of the three Social Value Groups. All predictions with respect to the 'known group' members were confirmed.

Five members of the pilot sample exhibited a mixture of the values and attitudes of more than one of the three Social Value Groups. Four respondents clearly and unquestioningly exhibited motivation, values and attitudes exclusive and typical of the Sustenance consumer, five of the Inner directed consumer group and three of the Outer directed consumer group.

A high degree of correspondence between the motivations, attitudes and values demonstrated in the interviews and those detailed in MacNulty (1985) indicated the validity of the screening instrument as a mechanism for identifying Social Value Group members. Of the nineteen respondents in the pilot study sample two demonstrated contradictions between their questionnaire and interview responses. As mentioned previously three members of each Social Value Group (identified as a result of the pilot) completed refined and revised versions of Part Two of the questionnaire over a five month period. Their responses were cross checked with their previous responses. A high degree of correspondence between their answers on each occasion indicated the reliability of the instrument.

As a result of the pilot several modifications were made to the screening instrument. The sequence of the questions was changed so that the least controversial and simplest were at the beginning. Very negative words were replaced e.g. 'I am resistant' was changed to 'I am not keen'. An initial twelve statements ( four for each Social Value Group) were extended to eighteen (six for each Social Value Group), the aim of the additional statements was to repeat issues already presented but in a different context, to improve

the sensitivity of the instrument. Another important addition was the attachment of a glossary. During the interviews respondents' understanding of the words in the questionnaire were cross checked by asking them to discuss their responses. It became apparent that some words were being interpreted differently by different respondents. A glossary was therefore added to the end of the questionnaire with a note as a way of ensuring the consistent interpretation of potentially ambiguous words such as 'unconventional' and 'alternative' (see Appendix 1.1). The predicted problem of 'prestige bias' was confirmed with some of the Inner directed statements, the scoring criteria for the categorisation of respondents into Social Value Groups was designed to compensate for this (see Chapter Four).

The results of the pilot indicated that members of each Social Value Group could successfully be identified using the screening instrument alone.

An in - depth analysis of the results of the Screening Instrument and Interview One can be found in Chapters Four and Five respectively.

### **3.2.4 FOOD RISK PERCEPTION AND RISK RELIEVING STRATEGY QUESTIONNAIRES (Part Three and Part Four of the Questionnaire)**

Parts three and four of the questionnaire (Food Risk Perceptions and Risk Relieving Strategies) was piloted using the same nineteen respondents that were used when designing and piloting the screening instrument. Having developed a more in-depth understanding of these consumer's social values, the aim was now to investigate how their social values were influencing their responses to parts three and four of the questionnaire.

## **3.2.5 DESIGN OF FOOD RISK PERCEPTION**

### **QUESTIONNAIRE**

#### **(Part Three of the Questionnaire)**

Consumers are everyday confronted with purchase decisions. Research suggests that we perceive a variety of risks associated with the consumption and purchase of food. It has been recognised that different consumers perceived the same risks in varying degrees and often perceive very different risks all together. Douglas and Wildavsky (1982a) suggested that we choose what to fear in a way that reinforces our social values. What influences these differences is key as it is fundamental to consumer decision making.

When one examines previous research we observe that risk is often discussed in the context of perceived loss. Many authors have categorised loss, (Mitchell and Greatorex (1990), Kaplan et al (1974), Soby et al (1994), Toh and Heeren (1982)). Collectively these categories of loss are financial/money, time, physical/health, psychological/ego, social, performance, ethical. It is suggested that risks ultimately threaten the loss of one or more of these and consumers will fear these losses to a greater or lesser extent and perceive risks accordingly.

With the objective of having a broad perspective and being conscious of the dangers of setting narrow boundaries, a comprehensive list of potentially perceived risks was constructed. This carefully designed list included risks that potentially threatened the values and attitudes of all three of Taylor Nelson's Social Value Groups (important for sampling validity). All risks potentially having lesser or greater significance depending on the respondents and their value system / 'world view'. It was predicted for example that Sustenance driven respondents would, due to their need to feel secure, be highly concerned about financial risks. Similarly it was predicted that Outer directed respondents, aspiring to high social and financial status, may be concerned about the image and reputation of the shops they use and the brands they buy. In contrast Inner direct respondents would be concerned about what were labelled 'spiritual risks' due to their awareness of world / social events and ecological awareness.

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Part Three of the questionnaire included questions on the following potentially perceived food risk issues :- nutrition, additives, preservatives, labelling, technology, contaminants, environment, price, reputation and image, food poisoning, unfamiliarity, time and skill, stimulants, eating out, place of origin.

Forty eight variables in total were included. The respondents were asked to indicate on a nine point Likert scale the degree to which they were worried about the risks concerned. The spectrum of the scale was designed to give respondents the opportunity to clearly differentiate between their responses.

### **3.2.6 DESIGN OF RISK RELIEVING STRATEGY**

#### **QUESTIONNAIRE**

##### **(Part Four of the Questionnaire)**

It is human nature to attempt to reduce or relieve potential harm. Research detailed in the literature review suggests how consumers attempt to manage perceived risk by adopting different risk relieving strategies.

If one has knowledge of what the most effective risk reducing / relieving strategies are for particular target markets, this can be integrated into the design and marketing of the products concerned and into relevant communication strategies. The strategy most effective for one consumer group might be totally ineffective for another. Only a deep understanding of one's target market can enable the development of effective and efficient strategies. Part four of the questionnaire aimed to investigate what consumers might perceive as effective ways of reducing / relieving risk and how these strategies differed between Social Value Groups.

In designing and developing the risk relieving strategy questionnaire, the values and attitudes of the three Social Value Groups provided an initial framework. Strategies which might support and reinforce consumer's social values were included. Following on from previous research the perceived risk was the starting point. Scenarios and

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relationships were theorised, for example if a consumer perceived a financial loss as a key risk, it was hypothesised that shopping in a 'cheaper' supermarket might be an effective risk relieving strategy, whilst shopping in an 'expensive' supermarket clearly would not. In contrast if a consumer values social status, image and reputation and perceives the loss of these as a risk, shopping in an expensive supermarket may indeed be an effective risk reliever.

As the review of the literature highlighted, previous research into risk relieving strategies has identified the key methods adopted by consumers in attempts to reduce perceived risk, these are:- endorsement, branding, brand loyalty, shopping around, image (store and brand), reputation, private testing, free sample, money back guarantee, government testing, buying the expensive, word of mouth, seeking information (Roselius 1971) Derbaix (1983) added sales person advice. Other important features of risk relief raised in the literature were level of knowledge and information, source of information, degree of trust in that source, and familiarity with the risk. These were all incorporated into the questionnaire. It was important that there be risk relieving strategies for all Social Value Groups and that there be a risk relieving strategy for all potentially perceived risks.

Part four comprised a list of seventeen risk relieving strategies, the respondents were asked to indicate on a nine point Likert scale the degree to which the strategy might relieve or reduce any worry they might have about a food risk / food purchasing risk. As with Part three the nine point Likert scale gave a wide spectrum so that respondents could discriminate between the strategies.

### **3.2.7 INTERVIEW TWO**

The aim of Interview Two was to explore, clarify and verify the responses to Part Three of the questionnaire. Consumers food risk perceptions were thought, at the design phase, to be the primary focus of the research. As a result Interview Two focused on responses to part three of the questionnaire. As the research progressed it was recognised that risk relieving strategies should be focused on to the same degree as risk

perceptions. This was indeed the case in the Interview Three (which followed the main study), the findings of which can be found in Chapter Five.

From the original pilot sample, three of the four Sustenance driven respondents, three of the five Inner directed respondents and the three Outer directed respondents were selected to be interviewed with respect to their responses to Part Three of the questionnaire. All interviewees were told that the aim of the interview was to avoid inaccurate assumptions being made about their food risk perceptions. It was explained that they may be asked questions that may seem very obvious, but that there was a need to clarify and verify assumptions. The interviewees were allowed to 'ramble' to allow important issues to be raised that might otherwise have been missed.

The aim of the interview was to investigate why the respondents had indicated a high degree of worry about some of the risks whilst others did not worry them at all. The interviewees were asked, "why does this worry you", "why does this not worry you".

### **3.2.8 RESULTS OF PILOTING PART THREE AND PART FOUR OF THE QUESTIONNAIRE AND INTERVIEW TWO**

Respondents from the three different Social Value Groups indicated differing degrees of worry about different types of risks and about the types of risk relieving strategies that might relieve those risks. The outcomes of Interview Two (some of which are reported in Chapter Five) supported the results of the questionnaire and clarified why respondents answered the questionnaire in the way that they did.

The refined and redrafted Food Risk Questionnaire (Part Three) reduced the number of perceived risks from forty eight to twenty eight. Variables were omitted when the responses were the same for all respondents i.e. all respondents perceived that the risk was something to be worried about or alternatively all respondents perceived that the

risk was not a worry. Food poisoning fell into the former category and as such was removed from Part Three of the questionnaire.

Only very minor changes were made, mainly grammatical, to Part Four of the questionnaire.

### **3.2.9 MAIN STUDY**

#### **3.2.9.1 THE SAMPLE**

*Part One of the main study questionnaire was designed as a filter to obtain a suitable sample.*

Taylor Nelson identified members of each Social Value Group at every social and economic level and every socio economic and demographic variable within each of the Social Value Groups. It might therefore be assumed that a representative sample of the general population would serve the needs of the research. However it was judged that there were a number of biases that might obscure the possible relationships between social values and risk perceptions had a mixed sample been used in this way as follows:-

Firstly it was important that the responses made to the food risk and risk relieving elements of the questionnaire were informed and considered. It was therefore felt that the sample should consist of women rather than men. Women are on the whole more involved and more knowledgeable about food provisioning. In addition there was some concern that men may play down their responses to food risk to 'save face'.

Taylor Nelson's theory is strongly influenced by Maslow's hierarchy of needs, it therefore is appropriate to exclude what Maslow (1970) describes as 'one source of confusion' by following his lead and 'confining the sample to 'older' people' of twenty five years or more. Maslow (1970) believed that self actualisation, (a key trait of Inner directed consumers) does not occur in young people. With regard to Taylor Nelson's

research, younger respondents would not have the social values of Inner directed consumers and would therefore bias the sample.

It was believed that respondents whom worked full time and had no children living at home would have more independent values predominantly motivated by their own wants and needs rather than their consideration of those of others such as their children.

With a total household income of over £12,000 p.a. (11,855pa average household income (Source - 1992 family expenditure survey, Annual Abstract of Statistics 1995) it was believed respondents who did indicate that financial risk was an issue for them were doing so because of their social values rather than because they were in fact financially constrained.

For these reasons the sample was thus to consist of women aged 25 – 45, with no dependent children, economically active with an income above the national household average.

Given that the intended sample was not representative of the whole population and given that the research had no funding at all, it was decided to gather a convenience sample of this type of individual from the staff of Sheffield Hallam University. This was achieved by distributing the questionnaire across the entire full time staff (interested parties were excluded). Men were also surveyed, to provide data for a possible further analysis of this group at a later date.

The total number of individuals surveyed was 1957. Of those surveyed 62% responded. Of those, 215 respondents fell into the group of interest (the homogeneous sample). These individuals formed the sample. As the distribution of women across the whole University in the category of interest was not known, it is not possible to say what percentage of this group responded to the survey. However there is no reason to believe that the non-respondents differed from the respondents in ways that would have effected the results. The consequence of using a convenience sample are that the results of the research are suggestive rather than generalisable to a wider population.

The final question in this part of the questionnaire asked the respondent if they would be prepared to participate at a later date in a follow-up. This gave a pool of respondents from whom a sample could be later selected for follow up Interviews (Interview Three).

### **3.2.9.2 DISTRIBUTION OF THE QUESTIONNAIRE AND COVER LETTER**

A cover letter accompanied the questionnaire, it was written with the aim of overcoming any resistance or prejudice the respondent may have against completing the questionnaire.

The cover letter identified the researcher and the department conducting the study, explaining the purpose of the study, the importance of the study and what it aimed to achieve. Confidentiality and anonymity were assured.

An addressed return envelope was enclosed with an aim to increasing response rates. Internal post was used avoiding the cost of stamps.

The questionnaire was sent out in October 1996. October was chosen to avoid both summer and Christmas vacations. Posted on a Monday to arrive Tuesday with the hope that respondents might have time to complete it before the week end.

As the return date approached the questionnaire was followed up with a reminder via e-mail. After the closing date another e-mail was sent out thanking those who had returned their questionnaire. Stressing the importance of the questionnaire a third request was made asking respondents to still return completed questionnaires even though the return date had passed. A contact was given on each occasion encouraging people to contact the researcher with any problems or / and questions.

### 3.2.9.3 QUESTIONNAIRE RESPONSE RATE

As previously mentioned the response rates were as follows:-

Total Returned and Completed Questionnaires	<b>1216</b>
Men	515
Women	701
of which were Homogeneous group members	<b>215</b>

$$R = 1 - (n - r) / n$$

$$\text{Response Rate} = 1 \times (1957 - 1216) / 2000$$

$$\text{Response Rate} \quad \underline{\underline{62 \%}}$$

87% (1056) of the completed questionnaires were returned by the first deadline date.

The other 13% (160) followed after reminders had been sent to the sample.

18% (215) of the returned and completed questionnaires were from the homogeneous group of interest as previously described (the largest homogeneous group arising). The 215 responses were used for analysis.

### 3.2.9.4 RESULTS OF THE MAIN STUDY

Results of the quantitative analysis of parts, two three and four of the main study questionnaire can be found in Chapter Four together with a full discussion of the statistical techniques used in the analysis. Results of the qualitative analysis can be found in Chapter Five.

### 3.2.10 INTERVIEW THREE

Interview Three took place after the questionnaire responses had been analysed.

Interview Three provided a vehicle through which to explore motivations beneath perceived risks and preferred risk relieving strategies identified in the main study. So far assumptions about motivation had been inferred, so for example, when a respondent had indicated that endorsement via a family member was an effective way of feeling less worried about a food risk the researcher assumed that this was because that respondent valued the judgement of that family member. The interviews gave the opportunity to confirm these assumptions.

Six members of each Social Value Group were randomly selected for follow up interviews. Five Inner Directed consumers, six Sustenance Driven and four Outer Directed consumers agreed to take part in the follow up interviews.

At the beginning of the interview interviewees examined their responses to Parts One and Two of the questionnaire (which they had filled out the previous year). They were asked to indicate if any of their demographic or socio-economic circumstances had changed. They were also asked to comment on whether they still agreed with all their previous responses. They were given a pencil and instructed to make changes as they saw fit. Minor changes were made to Parts Two, Three and Four, thus one respondent indicated that she had recently had a baby, (however she was sure that she could recall her mind set from when she had completed the questionnaire). This was the only change to Part One. The interview then progressed concentrating firstly on responses to Part Three of the questionnaire, Interviewees were interviewed in the same fashion as described for Interview Two. Questions such as, "are these worries for you?", "why?", "is this not a worry to you?", "why?" were included. The interview then progressed to Part Four of the questionnaire. The Interviewees were again asked to discuss their previously given responses and comment on why some of the strategies were effective risk relievers for them whilst others were not.

The outcomes of the interviews provided verification of and added validity to the findings of the quantitative analysis of the main study data.

The analysis of the results of Interview Three can be found in Chapter Five.

## CHAPTER FOUR

# QUANTITATIVE ANALYSIS

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The following chapter details the statistical analysis of the questionnaire data. Analysis of the qualitative interviews follows in Chapter Five.

Exploratory analysis provided the opportunity to develop an initial insight and feel for the data and importantly generated the information needed to establish whether it was suitable for parametric or non - parametric analysis. The data was interpreted as interval, whilst it is possible to question this interpretation, it has been recognised as common practice to use parametric tests for social science data of the type used in this research (Kaplan 1974, Davis 1999, Goldsmith et al 1997). Parametric tests also assume scores to be normally distributed therefore during the initial exploratory phase a series of frequency distributions were generated to verify that the data was sufficiently normal to allow for parametric tests. The final investigation undertaken to corroborate the use of parametric tests was to test for homogeneity of variance, the results of these tests confirmed that the variability of the scores in each condition were indeed approximately the same. The use of parametric tests is discussed further in Chapter 6 (Discussion).

Following the exploratory analysis, the data set from each part of the questionnaire were firstly analysed independently before examining any possible interrelationships between them. A series of univariate and multivariate techniques were used in the analysis, these included correlation, factor analysis and analysis of variance.

## **4.1 TECHNIQUES OF ANALYSIS**

### **4.1.1 PEARSON CORRELATION**

Pearson correlation is a technique typically used to identify the strength of relationships among parametric data. Measuring the relationship between variables and the strength of the association, it is useful in showing the degree to which variables are linearly related. No claim is made that this necessarily indicates cause and effect. Correlation is useful in that it may give further confirmation of a relationship that theory suggests exists.

A series of correlation matrices allowed for both correlation within and between responses to Part Two, Part Three and Part Four of the questionnaire. Positive and negative correlation coefficients were equally important, allowing for the examination and identification of the direction of correlation. Non significant correlations were examined in depth along with significant correlations recognising their value in supporting or refuting emerging themes and patterns.

A correlation matrix was generated for the whole sample of 215 respondents and for the smaller sample of the 54 most dominant respondents. The results for the two samples were examined and compared. On the whole there was little difference between the two other than that the correlation coefficients for the sample of 54 were generally higher. The direction and the themes were on the whole congruent between the two samples.

### **4.1.2 ANALYSIS OF VARIANCE**

A One - way (unrelated) Analysis of Variance was used to measure the differences between the mean scores of the responses to each dependent variable in both Part Three and Part Four of the questionnaire for the three Social Value Groups (Independent variable). Comparing the results for three or more independent groups, Analysis of Variance tests the equality of the means of the populations concerned and calculates

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whether these are significantly different. Post hoc tests allow for the specific identification of the location of these differences.

### **4.1.3 SIGNIFICANCE LEVELS**

A key aim of statistical tests is to indicate the percentage probability that one's results are due to chance rather than due to the predicted effects of the independent variable. The significance level allows for the statistical measurement of the degree of chance and as a consequence supports or rejects the hypothesis at a pre-determined level.

The significance level is established by calculating from the scores in an experiment the proportions of total variance which are due to the independent variables, and the proportion due to all other variables (error variance).

For the purpose of this research it was decided that the level of significance should be set at  $< 0.05$ , a level of significance widely adopted in the social sciences (Greene and D'Oliveira 1995). Using this level there is a 0.05 probability that your results are due to chance, i.e. a 95% chance that the results are statistically significant.

### **4.1.4 FACTOR ANALYSIS**

Factor analysis is a statistical technique used to identify a relatively small number of factors that can be used to represent the relationships amongst sets of inter-related variables, thus generating a smaller number of variables to explain most of the variance in the data and thereby providing a clearer and more concise description of that data. Principal Component Analysis was used to generate factors and Varimax rotation was applied to aid interpretation of them.

An exploratory phase of factor analysis was used to examine eigenvalues and possible levels of suppression for factor loadings. Tucker et al (1969) cited in Hair (1995) suggest that the most commonly used technique for identifying factors i.e. to select only

those with an eigenvalue of more than 1 is not always the best solution. Despite this, only factors with eigenvalues greater than one were used in line with the results of the relevant scree plots and bearing in mind the view of Aaker (1971) cited in Hair (1995) and Nunnally (1967) that this approach is generally the most appropriate one. Similarly the level at which factor loadings should be suppressed is commonly regarded as 0.5, however this text book solution is not always the most valuable. Many of the factor loadings in this research were less than 0.5 and therefore the question arose to whether 0.5 was the best level at which to suppress them. The results of the factor analysis undertaken are therefore presented displaying the results at three levels of suppression i.e. 0.5, 0.4 and 0.3.

Factor analysis was used to analyse the data from Part 2, Part 3 and Part 4 of the questionnaire for the whole sample of all 215 respondents. The aim of the factor analysis to identify factors or dimensions that represented the data on risk perceptions and risk relieving strategies in terms of a set of simplified constructs.

## **4.2 ANALYSIS OF THE SCREENING INSTRUMENT**

(Part Two of the Questionnaire)

### **4.2.1 PEARSON CORRELATION RESULTS**

Pearson correlations were carried out to examine the relationships between the eighteen social value variables within the screening instrument. The eighteen variables ( six Sustainance driven ones, six Outer directed ones, and six Inner directed ones) were designed to represent the social values of the Social Value Groups. The Pearson correlations identified and confirmed the expected internal relationships between the social value statements and the robustness of the screening instrument when used in practice.

The following tables summarise the findings of the Pearson correlation matrix for Part Two of the questionnaire for the total homogeneous sample of 215 (Appendix 3.1).

Please refer to Appendix 1.1 for a copy of the questionnaire and Appendix 1.2 for variable codes / abbreviations.

Please refer to Appendix 3.1 for the correlation coefficients and significance levels for the total homogeneous sample of 215 and Appendix 2.1 for correlation coefficients and significance levels for the dominant sample of 54.

#### 4.2.1.1 SUSTENANCE DRIVEN SOCIAL VALUE VARIABLES

##### SIGNIFICANT CORRELATIONS (215 respondents)

The following set of tables (4.1 - 4.6) examine each Sustenance driven social value variable in turn ('Secure', 'No change', 'Setways', 'Tradition', 'Hold existing life', 'Making few contacts') and identify both positive and negative significant correlations (<0.5) between that variable and the other seventeen social value variables included in the screening instrument.

**Table 4.1** Sustenance driven value variable *"I am primarily motivated by a need to feel secure"*

Secure		s		s		s		s
		v		v		v		v
		g		g		g		g
+ve correlation	nochange	S	setways	S	trad	S	holdlife	S
-ve correlation	world	I	unconve	I				

4 out of a possible 5 +ve correlation

**Table 4.2** Sustenance driven value variable *"I am not keen to seek change"*

Nochange		s		s		s		s		s		
		v		v		v		v		v		
		g		g		g		g		g		
+ve correlation	secure	S	setways	S	trad	S	holdlife	S	appear	O	contacts	S
-ve correlation	unconve	I	winning	O	ahead	O	voiceops	I	status	O	alternat	I

5 out of a possible 5 +ve correlation

**Table 4.3** Sustenance driven value variable *"I tend to be set in my ways"*

<b>Setways</b>		s		s		s		s		s
		v		v		v		v		v
		g		g		g		g		g
+ve correlation	secure	S	nochange	S	trad	S	holdlife	S	appear	O
-ve correlation	alternat	I								

4 out of a possible 5 +ve correlation

**Table 4.4** Sustenance driven value variable *"I believe that the breakdown of tradition causes instability in society"*

<b>Trad</b>		s		s		s		s		s
		v		v		v		v		v
		g		g		g		g		g
+ve correlation	secure	S	best	O	nochange	S	setways	S	appear	O
-ve correlation	unconve	I	voiceops	I	alternat	I				

3 out of a possible 5 +ve correlation

**Table 4.5** Sustenance driven value variable *"I tend to hold onto my existing lifestyle"*

<b>Holdlife</b>		s		s		s
		v		v		v
		g		g		g
+ve correlation	secure	S	nochange	S	setways	S
-ve correlation						

3 out of a possible 5 +ve correlation

**Table 4.6** Sustenance driven value variable *"I invest relatively little time in making new contacts / friends"*

<b>Contacts</b>		s		s
		v		v
		g		g
+ve correlation	nochange	S		
-ve correlation	ahead	O	voiceops	I

1 out of a possible 5 +ve correlation

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## SUMMARY: SUSTENANCE DRIVEN VALUE VARIABLES

The tables identify that Sustenance driven variables significantly and positively correlate with other Sustenance driven variables. Importantly, whilst the tables above only detail those correlations which are significant, examination of Appendix 3.1 illustrates that all Sustenance driven value variables correlate positively with each other with no negative correlations amongst them.

There are significant positive correlations between the Outer directed variable; *"I take pride in keeping up appearances"* and the Sustenance driven variables *"I tend to be set in my ways"*, *"I believe that the breakdown of tradition causes instability in society"* and *"I am not keen to seek change"* and between the Outer directed variable *"I am motivated by the desire to have the best"* and the Sustenance driven variable *"I believe that the breakdown of tradition causes instability in society"* these are the only non-Sustenance driven variables that correlate positively with Sustenance driven variables. If one examines the variables that correlate significantly in a negative direction these are all Inner directed and Outer directed value variables. The variable *"I invest relatively little time in making new contacts / friends"* correlates significantly in a positive direction with only one other Sustenance driven variable, whilst all correlations with other Sustenance variables are positive they are not significant, this may be an indication that this variable is the least helpful in identifying Sustenance driven consumers.

### 4.2.1.2 OUTER DIRECTED SOCIAL VALUE VARIABLES

#### SIGNIFICANT CORRELATIONS

The following set of tables (4.7 - 4.12) examine each Outer directed social value variable in turn ('Best', 'Winning', 'Ahead', 'Status', 'Appearance', 'My success') and identify both positive and negative significant correlations ( $< 0.5$ ) between that variable and the other seventeen social value variables included in the screening instrument.

**Table 4.7** Outer directed value variable *"I am motivated by the desire to have the best"*

<b>Best</b>		s		s		s		s		s
		v		v		v		v		v
		g		g		g		g		g
+ve correlation	<b>winning</b>	<b>O</b>	<b>trad</b>	<b>S</b>	<b>ahead</b>	<b>O</b>	<b>appear</b>	<b>O</b>	<b>status</b>	<b>O</b>
-ve correlation										

4 out of a possible 5 +ve correlation

**Table 4.8** Outer directed value variable *"Winning is a priority for me"*

<b>Winning</b>		s		s		s		s		s		
		v		v		v		v		v		
		g		g		g		g		g		
+ve correlation	<b>best</b>	<b>O</b>	<b>ahead</b>	<b>O</b>	<b>voiceops</b>	<b>I</b>	<b>status</b>	<b>O</b>	<b>appear</b>	<b>O</b>	<b>mysucces</b>	<b>O</b>
-ve correlation	<b>nochange</b>	<b>S</b>										

5 out of a possible 5 +ve correlation

**Table 4.9** Outer directed value variable *"I am strongly motivated to get ahead of others"*

<b>Ahead</b>		s		s		s		s		s
		v		v		v		v		v
		g		g		g		g		g
+ve correlation	<b>best</b>	<b>O</b>	<b>winning</b>	<b>O</b>	<b>status</b>	<b>O</b>	<b>appear</b>	<b>O</b>	<b>mysucces</b>	<b>O</b>
-ve correlation	<b>nochange</b>	<b>S</b>	<b>contacts</b>	<b>S</b>						

5 out of a possible 5 +ve correlation

**Table 4.10** Outer directed value variable *"I'm motivated by a desire to improve my status"*

<b>Status</b>		s		s		s		s		s
		v		v		v		v		v
		g		g		g		g		g
+ve correlation	<b>best</b>	<b>O</b>	<b>winning</b>	<b>O</b>	<b>ahead</b>	<b>O</b>	<b>appear</b>	<b>O</b>	<b>mysucces</b>	<b>O</b>
-ve correlation	<b>nochange</b>	<b>S</b>								

5 out of a possible 5 +ve correlation

**Table 4.11** Outer directed value variable *"I take pride in keeping up appearances"*

Appear		s		s		s		s		s		s
		v		v		v		v		v		v
		g		g		g		g		g		g
+ve correlation	best	O	nochang	S	winning	O	setways	S	trad	S	ahead	O
-ve correlation	unconve	I	alternat	I								

Appear (cont.)		s		s
		v		v
		g		g
+ve correlation	status	O	mysucces	O
-ve correlation				

5 out of a possible 5 +ve correlation

**Table 4.12** Outer directed value variable *"I tend to make sure that other people know all about my successes"*

Mysucces		s		s		s		s		s		s
		v		v		v		v		v		v
		g		g		g		g		g		g
+ve correlation	discover	I	winning	O	ahead	O	status	O	appear	O	mysucces	O
-ve correlation												

5 out of a possible 5 +ve correlation

**SUMMARY: OUTER DIRECTED VALUE VARIABLES**

The tables identify a strong set of correlations, with comparatively high correlation coefficients (see Appendix 2.1). Outer directed variables significantly and positively correlate with all other Outer directed variables with only one exception i.e. the correlation between *"I tend to make sure that other people know all about my successes"* and *"I am motivated by the desire to have the best"*, is not significant.

There is a significant positive correlation between the Sustenance driven variable; *"I believe that the breakdown of tradition causes instability in society"* and the Outer directed variable *"I am motivated by the desire to have the best"*, and between

Sustenance driven variables "I am not keen to seek change", "I tend to be set in my ways", "I believe that the breakdown of tradition causes instability in society" and the Outer directed variable "I take pride in keeping up appearances" perhaps indicating that "I take pride in keeping up appearances" is not unique to Outer directed respondents.

A positive correlation exists between the Inner directed variable "I voice my opinions even if it means disagreeing with others or being unpopular" and the Outer directed variable "Winning is a priority for me" and between the Inner directed variable "I am primarily motivated by a need for self discovery" and the Outer directed variable "I tend to make sure that other people know all about my successes".

If one examines the variables that correlate significantly with Outer directed variables in a negative direction these are all Inner directed and Sustenance driven value variables.

#### 4.2.1.3 INNER DIRECTED SOCIAL VALUE VARIABLES SIGNIFICANT CORRELATIONS

The following set of tables (4.13 - 4.18) examines each Inner directed social value variable in turn ('Self discovery', 'World', 'Unconventional', 'Voice options', 'Fewrules', 'Alternative') and identifies both positive and negative significant correlations (<0.5) between that variable and the other seventeen social value variables included in the screening instrument.

**Table 4.13** Inner directed value variable "I am primarily motivated by a need for self discovery"

Discover		s		S		s		s
		v		v		v		v
		g		g		g		g
+ve correlation	unconve	I	voiceops	I	alternat	I	mysucces	O
-ve correlation								

3 out of a possible 5 +ve correlation

**Table 4.14** Inner directed value variable *"I am largely unconcerned about the opinion of me held by the world at large"*

World		s		s
		v		v
		g		g
+ve correlation	unconve	I	fewrules	I
-ve correlation	secure	S		

2 out of a possible 5 +ve correlation

**Table 4.15** Inner directed value variable *"I would describe myself as fairly unconventional"*

Unconve		s		s		s		s		s
		v		v		v		v		v
		g		g		g		g		g
+ve correlation	discover	I	world	I	voiceops	I	fewrules	I	alternat	I
-ve correlation	secure	S	nochange	S	trad	S	appear	O		

4 out of a possible 5 +ve correlation

**Table 4.16** Inner directed value variable *"I voice my opinions even if it means disagreeing with others or being unpopular"*

Voiceops		s		s		s		s
		v		v		v		v
		g		g		g		g
+ve correlation	discover	I	unconve	I	winning	O	alternat	I
-ve correlation	nochang	S	trad	S	contacts	S		

3 out of a possible 5 +ve correlation

**Table 4.17** Inner directed value variable *"I work most effectively where there are few rules and little structure"*

Fewrules		s		s		s
		v		v		v
		g		g		g
+ve correlation	world	I	unconven	I	alternat	I
-ve correlation						

3 out of a possible 5 +ve correlation

**Table 4.18** Inner directed value variable *"I believe groups with alternative values and lifestyles are a positive force in society"*

Alternat		S		S		S		S
		V		V		V		V
		G		G		G		G
+ve correlation	discover	I	unconven	I	voiceops	I	fewrules	I
-ve correlation	nochange	S	setways	S	trad	S	appear	O

4 out of a possible 5 +ve correlation

### SUMMARY: INNER DIRECTED VALUE VARIABLES

The tables identify that Inner directed variables significantly and positively correlate with the majority of other Inner directed value variables. There is significant positive correlation between the Inner directed variable *"I am primarily motivated by a need for self discovery"* and Outer directed variable *"I tend to make sure that other people know all about my successes"* and between the Inner directed variable *"I voice my opinions even if it means disagreeing with others or being unpopular"* and the Outer directed variable *"Winning is a priority for me"*. These are the only variables other than Inner directed ones that have a significant positive correlation with Inner directed variables. If one examines the variables that correlate significantly with Inner directed variables in a negative direction these are all Sustenance driven and Outer directed ones. Examination of Appendix 2.1 illustrates that whilst the majority of Inner directed variables correlate positively with each other there are two exceptions. The variables, *"I am largely unconcerned about the opinion of me held by the world at large"* and *"I am primarily motivated by a need for self discovery"* correlate negatively as do the variables *"I am largely unconcerned about the opinion of me held by the world at large"* and *"I believe groups with alternative values and lifestyles are a positive force in society"*. Whilst this correlation is not significant it suggests that the variable *"I am largely unconcerned about the opinion of me held by the world at large"* is not the best variable with which to identify Inner directed consumers.

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#### **4.2.1.4 SUMMARY OF ANALYSIS OF THE SCREENING INSTRUMENT**

There are no significant positive correlations between Sustenance driven and Inner directed value variables, indicating that there is no overlap between these two groups. There is however an indication of overlap between Inner directed and Outer directed value variables and Sustenance driven and Outer directed variables. Importantly these overlaps are very slight compared to the high degree of correlation between the variables within the Social Value Groups. This interestingly supports MacNulty's (1985) suggestion that the three social value groups can be positioned in the style of Maslow's hierarchy of needs with Sustenance driven at the bottom, Outer directed in the middle and Inner directed at the top.

The results of the analysis for the screening instrument do on the whole confirm its robustness as a tool to identify the values of the three social value groups Sustenance driven, Outer directed and Inner directed.

#### **4.2.2 GENERATION OF SOCIAL VALUE SCORE PROFILES FOR HOMOGENEOUS SAMPLE**

Confident that the screening instrument was operating as expected across a large number of respondents, the next stage was to score each respondent according to their responses to each of the Social Value group variables. This was done on the same basis as in the pilot (described in 3.2.4) and is reiterated below.

The responses of all 215 respondents in the homogeneous sample were examined, each response to each of the 18 social value variables (6 Inner directed value statements, 6 Outer directed value statements and 6 Sustenance driven value statements) being given a score of +2,+1,0,-1 or -2, this scoring system was used rather than 1 – 5 so to generate negative scores, these would be a clear indication that the respondent disagreed with the social value statement. The scores for each set of six social values were then added

together. In this way, three scores were generated for each set of values for each respondent, the first indicating the degree to which the respondent was Sustenance driven, a second indicating the degree to which the respondent was Outer directed and the third indicating the degree to which the respondent was Inner directed. Appendix 5 illustrates these score profiles for all 215 members of the homogeneous group.

If we examine the scores profiles (Appendix 5) one can clearly identify a number of respondents who have no dominant values for example respondents 8, 74 and 89. There are also respondents that exhibit two sets of values whilst disagreeing with the third, for example, respondent 139 exhibits both Inner directed and Outer directed social values. Importantly there are also respondents who demonstrate a dominant set of values.

The identification of respondents who clearly exhibited one dominant set of values was undertaken to investigate differences in consumer perceptions of food risk and risk relieving strategies for the three social value groups, Sustenance Driven, Outer Directed Inner directed (objective 3 and 4 Chapter One) and to measure the statistical significance of those differences through an analysis of variance. Similarly these groups would provide the sample for Interview Three to further investigate food risk perceptions and risk relieving strategies for Inner directed, Outer directed and Sustenance driven respondents (analysed in Chapter Five).

Once all the respondents had been given a score profile (Appendix 5) a mechanism needed to be devised which could be used to select an equal number <sup>1</sup> of dominantly Sustenance driven, Outer directed and Inner directed respondents. This was achieved by considering mean and standard deviation (SVG) scores for all 215 respondents (see Table 4.19). These formed the basis for deriving a set of rules (See section 4.2.2.1) for allocating respondents to the most appropriate Social Value Group. The members of the three dominant groups selected in this way are detailed in Table 4.20.

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<sup>1</sup> An equal number of respondents were needed in each group to improve reliability of the analysis of variance subsequently undertaken as described by Greene and D'Oliveira (1995)

**Table 4.19 Means and Standard Deviations for Social Value Group Profile  
Scores for Homogeneous Group of 215**

	Inner directed	Outer directed	Sustenance driven
<b>Mean</b>	+ 1.72	- .87	- 1.21
<b>Standard Deviation</b>	3.30	4.17	3.56
<b>68 % of scores were in the range of</b>	- 1.58 - +5.01	- 5.05 - +3.30	- 4.76 - +2.35

As can be seen in Table 4.19 above the Inner directed mean SVG score was the highest of the three perhaps due to a positive bias of responses to the Inner directed value statements. This bias was compensated for in the conditions used to select the 18 most dominant Sustenance driven, Outer directed and Inner directed respondents (see section 4.2.2.1).

#### **4.2.2.1 CONDITIONS FOR THE IDENTIFICATION OF DOMINANTLY SUSTENANCE DRIVEN, OUTER DIRECTED AND INNER DIRECTED RESPONDENTS**

To be labelled as dominantly Sustenance driven the respondent had to fulfil all of the following criteria :-

1. have a Sustenance driven score that is no less than 3
2. have an Outer directed score which is a minimum of 3 points lower than that of the Sustenance score
3. have an Inner directed score which is a minimum of 3 points lower than that of the Sustenance driven score
4. have no more than one -1 (disagree) response or 2 x 0 (neither agree or disagree) responses to any Sustenance driven social value.

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To be labelled as dominantly Outer directed the respondents had to fulfil all of the following criteria :-

1. have a Outer driven score that is no less than 3
2. have an Sustenance driven score which is a minimum of 3 points lower than that of the Outer directed score
3. have an Inner directed score which is a minimum of 3 points lower than that of the Outer directed score,
4. have no more than one -1 (disagree) response or 2 x 0 (neither agree or disagree) responses to any Outer directed social value.

To be labelled as dominantly Inner directed the respondents had to fulfil all of the following criteria :-

1. have an Inner directed score that is no less than 6
2. have an Sustenance driven score which is a minimum of 6 points lower than that of the Inner directed score
3. have an Outer directed score which is a minimum of 6 points lower than that of the Inner directed.
4. have no more than 1 x 0 (neither agree or disagree) response to any Inner directed social value.

To be labelled as a member of the non dominant group respondents had to :-

1. have a score profile that did not fit with any one of the other three categorises.

Thus the 18 most dominant Outer directed, Inner directed and Sustenance driven respondents were selected and coded as such, the rest of the 215 sample were coded as members of the non dominant group.

**Table 4.20 Social Value Score (SVG) Profiles for Dominant Groups**  
 (Sample of (54) 18 Sustenance driven, 18 Outer directed, 18 Inner directed)

Sustenance Driven				Outer Directed				Inner Directed			
ID	Sust S/c	Inner S/c	Outer S/c	ID	Sust S/c	Inner S/c	Outer S/c	ID	Sust S/c	Inner S/c	Outer S/c
150	5	-2	-5	1	-3	2	5	81	-7	10	-7
19	7	-1	0	3	0	1	4	153	-2	7	-6
164	5	-1	-1	75	-2	2	6	83	-7	7	-3
99	5	-3	-4	10	0	3	6	85	-5	5	-2
175	6	-4	2	154	4	-1	11	158	-4	7	-4
41	5	2	-1	95	1	0	7	162	-6	6	-4
43	8	-7	-5	25	2	-1	5	163	-4	9	-4
187	4	0	-2	28	1	1	6	166	-1	6	-9
197	5	-6	-4	184	1	-1	5	24	-4	6	0
54	7	3	-2	118	-2	3	7	170	-4	9	-5
201	5	1	-2	50	-6	2	8	35	-4	6	-6
202	6	2	1	62	-3	-3	6	46	-4	9	-4
203	5	-1	-1	134	-2	1	4	193	0	6	-2
206	4	0	-2	135	-2	1	6	198	-3	8	-6
209	7	3	-2	205	-6	0	9	200	-2	8	-7
138	4	-5	1	207	-3	2	5	129	-7	7	-7
212	7	-1	0	211	-4	1	7	63	-2	9	-7
58	4	-1	-2	144	-2	3	6	68	-5	6	-4

(Appendix 5 details the Score Profile for total homogeneous sample of 215)

Whilst the decision making process and the conditions for identification of the 54 respondents were, from a positivistic perspective rather crude, one was confident that the respondents chosen were indeed dominantly Sustenance driven, Outer directed or Inner directed. This broad approach was later supported by Earle and Cvetkovich (1999) who adopted a similar strategy for categorising respondents in their research and is discussed further in Chapter Six.

## 4.3 ANALYSIS OF FOOD RISK PERCEPTION

### QUESTIONNAIRE (Part Three of the Questionnaire)

Analysis of the results of Part Three of the questionnaire aimed to investigate how social values influenced food risk perceptions (research objective 3 Chapter One).

#### 4.3.1 EXAMINATION OF FOOD RISK PERCEPTION MEAN SCORES

Table 4.21 details the mean scores for the Food Risk Perception variables for the homogeneous sample of 215 respondents as a whole and for the dominant sample of 18 Sustenance driven, 18 Inner directed and 18 Outer directed respondents.

Importantly responses were expressed using a Likert scale of 1 – 9, 5 being the midpoint on the scale, 9 indicating the highest level of perceived risk. The means are presented in descending order those at the top of the table indicating the highest level of perceived risk, those at the bottom of the table the lowest perceived risk.

**Table 4.21 Food Risk Perception Variable Mean Scores**

Part 3	Mean Score for sample of 215	Part 3	Mean Score 18 Susten	Part 3	Mean Score 18 Inner	Part 3	Mean Score 18 Outer
pestfert	7.52	pestfert	8.06	pestfert	8.50	highfat	7.94
highfat	7.38	exppack	7.33	informis	8.06	informis	7.67
informis	7.31	informis	7.28	controv	7.94	pestfert	7.06
controv	6.83	highfat	7.22	highfat	7.39	highsalt	6.89
artipres	6.44	BSE	7.11	p3geneng	7.33	liminfo	6.61
liminfo	6.37	p3geneng	6.94	notrepac	7.33	artipres	6.44
BSE	6.29	artipres	6.67	exppack	7.18	p3geneng	6.39
p3geneng	6.15	liminfo	6.61	prepared	7.17	controv	6.33
artflav	6.12	highsalt	6.44	BSE	7.06	BSE	6.28

notrepac	5.97	controv	6.44	artipres	6.83	lowfibre	6.28
lowfibre	5.93	expsup	6.33	liminfo	6.72	artflav	6.11
artcolor	5.76	artflav	5.94	highsalt	6.61	notrepac	5.83
exppack	5.59	prepared	5.89	artcolor	6.28	artcolor	5.44
prepared	5.17	artcolor	5.56	artflav	6.22	throwbbd	4.94
throwbbd	5.08	cheapsup	5.33	throwbbd	5.83	imagesup	4.94
cheapsup	4.67	throwbbd	5.22	lowfibre	5.56	exppack	4.78
artsweet	4.50	artsweet	5.00	artsweet	5.18	cheapsup	4.61
nonorg	4.32	expbrand	4.89	expsup	5.06	cheapbra	4.59
imagesup	4.13	lowfibre	4.83	nonorg	4.89	difbrand	4.39
cheapbra	4.01	notrepac	4.72	expbrand	4.30	artsweet	4.28
expsup	3.80	difbrand	4.39	imagesup	3.88	prepared	4.06
difbrand	3.66	unfaming	3.72	cheapsup	3.78	nonorg	3.94
expbrand	3.50	nonorg	3.56	eatout	3.39	expbrand	3.67
highsalt	3.38	cheapbra	3.33	cheapbra	3.29	difsup	3.22
unfaming	3.06	imagesup	3.22	unfaming	3.00	unfaming	3.22
eatout	2.52	eatout	2.72	difbrand	2.94	expsup	2.56
difsup	2.51	ownlabel	2.33	ownlabel	2.29	eatout	2.11
ownlabel	2.33	difsup	2.06	difsup	2.22	ownlabel	2.06

If one examines the top five food risk perceptions for the 18 Sustenance Driven, 18 Inner Directed and 18 Outer Directed respondents, *'pesticides, fertilisers, veterinary drug residues in foods'*, *'Information on packaging that may be misleading'* and *'High fat diet'* are all present. Interestingly these are the top three food risk perceptions for the total homogeneous sample of 215 indicating that these are broad common food risk perceptions.

A more in-depth examination of these mean scores begins to identify differences between the Sustenance driven, Outer directed and Inner directed Social Value Groups. The Outer directed mean scores are on the whole lower than those for the Inner directed or Sustenance driven groups. Inner directed mean scores are on the whole the highest. *'High fat diet'* is the number one perceived risk for Outer directed respondents whilst, *'pesticides, fertilisers, veterinary drug residues in foods'* is number one perceived risk for the Inner directed and the Sustenance driven groups.

Differences between the Food Risk Perceptions of the Sustenance driven, Outer directed and Inner directed groups needed to be confirmed using Analysis of Variance. Similarly respondents motivations for their food risk perceptions needed to be investigated, for example, whilst the mean scores indicate that Inner directed and Sustenance driven respondents share a concern for *'pesticides, fertilisers, veterinary drug residues in foods'* the rationale for this should not be assumed to be the same, Interviews (Chapter Five) would be used to explore this further.

### 4.3.2 ONE WAY ANALYSIS OF VARIANCE (Independent Groups)

Analysis of Variance was used to further investigate the food risk perception mean scores for the 18 Sustenance driven, 18 Outer directed and 18 Inner directed respondents. It was believed that any differences in food risk perceptions could be attributed to differences in the social values identified by the screening instrument (Part Two).

The differences between mean scores (Table 4.21) were examined. An asterisk indicates significant differences at  $<0.05$  between the food risk perception mean scores of the three Social Value Groups. The standard Post Hoc significant test (LSD) was used along side Tukey's HSD (test a more conservative and stringent test) to identify where the significant differences lie.

**Table 4.22 Results of the Analysis of Variance for Food Risk Perception Questionnaire**

Food Risk Perception Variable	Mean Score			Sig dif using LSD			Sig dif using Tukey's HSD		
	Susten	Inner	Outer	I/O	I/S	S/O	I/O	I/S	S/O
p3geneng	6.94	7.33	6.39						
expbrand	4.89	4.29	3.67						
exppack	7.33	7.18	4.78	*		*	*		*

<b>BSE</b>	7.11	7.06	6.28						
<b>prepared</b>	5.89	7.17	4.0556	*		*	*		
<b>pestfert</b>	8.06	8.50	7.06	*			*		
<b>cheapsup</b>	5.33	3.78	4.61						
<b>highsalt</b>	6.44	6.6111	6.89						
<b>artipres</b>	6.67	6.83	6.44						
<b>highfat</b>	7.22	7.39	7.94						
<b>informis</b>	7.28	8.06	7.67						
<b>notrepac</b>	4.72	7.33	5.83		*			*	
<b>difbrand</b>	4.39	2.94	4.39	*	*				
<b>throwbbd</b>	5.22	5.83	4.94						
<b>artsweet</b>	5.00	5.18	4.28						
<b>imagesup</b>	3.22	3.88	4.94			*			
<b>artcolor</b>	5.56	6.28	5.44						
<b>ownlabel</b>	2.33	2.29	2.06						
<b>liminfo</b>	6.61	6.72	6.61						
<b>artflav</b>	5.94	6.22	6.11						
<b>catout</b>	2.72	3.39	2.11						
<b>cheapbra</b>	3.33	3.29	4.59						
<b>lowfibre</b>	4.83	5.56	6.28						
<b>difsup</b>	2.06	2.22	3.22						
<b>nonorg</b>	3.56	4.89	3.94						
<b>unfaming</b>	3.72	3.00	3.22						
<b>controv</b>	6.44	7.94	6.33	*	*		*		
<b>expsup</b>	6.33	5.06	2.56	*		*	*		*

Table 4.23 Summary Table

## Results of the Analysis of Variance for Food Risk Perception

Questionnaire. Significant Differences Only (Data extracted from Table 4.22)

	Mean Scores			Sd using LSD			Sd using Tukey's HSD		
	Susten	Inner	Outer	I/O	I/S	S/O	I/O	I/S	S/O
exppack	7.33	7.18	4.78	*		*	*		*
prepared	5.89	7.17	4.06	*		*	*		
pestfert	8.06	8.50	7.06	*			*		
notrepac	4.72	7.33	5.83		*			*	
difbrand	4.39	2.94	4.39	*	*				
imagesup	3.22	3.88	4.94			*			
controv	6.44	7.94	6.33	*	*		*		
expsup	6.33	5.06	2.56	*		*	*		*

Table 4.23 highlights significant differences between the food risk perceptions of the Sustenance driven, Outer directed and Inner directed groups. Significant differences were identified between the means of the Sustenance group and the Outer directed group and similarly between the Inner directed group and the Outer directed group for *'Pay more for expensively and attractively packaged food'*, *'paying more for pre prepared vegetables'* and *'using an expensive food supermarket'*. Whilst mean scores for the Sustenance driven group and the Inner directed group are higher than the Outer directed group it is impossible to be sure of the motivation for these perceptions. Interestingly significant differences were identified between the means of the Sustenance driven group and the Inner directed group for *'Food packaging which is not recyclable'* and between the means of the Inner directed group and Outer directed group for *'Pesticides, fertilisers, veterinary drug residues in foods'* in both cases the Inner score being the higher. In contrast the Inner directed mean score for *'having to buy a different or new brand because your usual brand is out of stock'* was significantly lower than that for the Outer directed and Sustenance driven groups. Mean scores for the variable *'foods grown or/and produced by a company or country that operate controversially'* were above the mid way point for all three Social Value Groups nevertheless significant differences

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*were identified between Inner directed and Outer directed and Inner directed and Sustenance driven groups.*

Results indicate that there are indeed differences between the Sustenance driven, Outer directed and Inner directed food risk perceptions.

The internal relationships between the food risk perception variables are explored via Factor Analysis and Pearson Correlations (Appendix 2.2 (54) and 3.2 (215)).

### **4.3.3 FACTOR ANALYSIS**

The correlation matrix for Part Three of the questionnaire was explored in great length (Full matrix in Appendix 3.2 for the sample of 215, Appendix 2.2 for the sample of 54). The matrix provided an invaluable insight into the relationships between the food risk perception variables. The factor analysis was used to simplify these with a view to identifying underlying themes.

Varimax rotation was applied to aid the interpretation of the principal components (factors). The analysis was conducted on the total homogeneous sample of 215, the number of respondents in the dominant sample (54) was far too small to carry out the analysis.

As suggested by Piggott and Sharman (1986) cited in Hair (1995) only those factors with an eigenvalue of greater than one were retained in the final solution. Factor loadings of less than 0.5 were initially suppressed and then at 0.4 and 0.3 with a view to exploring and optimising the interpretation of the results.

#### **4.3.3.1 RESULTS OF THE FACTOR ANALYSIS**

The Kaiser - Meyer - Olkin (KMO) measure of sampling adequacy was .74603 i.e. greater than the 0.5 regarded as satisfactory for factor analysis to proceed.

A Barlett test of Sphericity of 2061.7348 (significance of 0.00000), indicated that the correlation matrix was suitable for factor analysis.

The following table 4.24, shows the nine factors extracted and the loading of the original variables on those factors. The Table illustrates the results of the factor analysis when loadings were suppressed at the levels of 0.5, 0.4 and 0.3 respectively.

**Table 4.24 Nine Factor Solution for Food Risk Perception Variables**

1	2	3	4	5	6	7	8	9
Technology	High Cost	Nutrition / Labelling	Cheap	Ecology / Ethics	Unfamiliar	Unfamiliar	BSE	
Artflav .80864	Exppack .80179	Highfat .83993	Cheapsup .79978	Notrepac .67159	Unfamaming .69368	Difbrand .80150	BSE .88641	Throwbbd .78256
Artcolor .78926	Expbran .78320	Highsalt .75059	Cheapbra .76353	Pestfert .58247	Nonorg .59547			Lowfibre .54949
Artipres .70905	Expsup .74782	Informis .63119	Imagesup .71824	Controv .63011	Difsup .54038			
Artsweet .67987	Prepared .70194		Ownlabel .54146					
Geneng .62558	Eatout .51715							
Pestfert .44353		Lowfibre .49522		Prepared .40900		Ownlabel .42145		
Liminfo .41142		Artipres .40834						
Nonorg .34785		Liminfo .33937	Difsup .36658	Eatout .38213	Liminfo .33391	Geneng .38422		Liminfo .36254
Notrepac .31794						Difsup .36919		
Controv .30418						Infomis .30526		

Nine factors were identified which accounted for 67.8% of the variance in the overall data, these are identified and illustrated in table 4.24. The first factor was highly

associated with 'Technology', the second with 'High Cost', the third with 'Nutrition / Labelling', the fourth with 'Cheap', the fifth with 'Ecological / Ethical issues', the sixth and seventh with 'Unfamiliarity', the eighth with 'BSE'. The KMO measure of sampling adequacy for the variable BSE was, however low at 0.566, similarly the KMO measure of sampling adequacy for the variable 'throwbbd' was 0.556. Though the lowest of the KMO scores for all the variables included in the analysis these levels are acceptable (above 0.5) and as such were retained. Interestingly however, if these two variables are removed from the factor analysis 'low fibre' falls into factor 3 'nutrition'.

Labels were given to each of the factors after the composites had been examined.

**4.3.3.2 RESULTS OF THE ANALYSIS OF VARIANCE FOR FACTOR SCORES FOR THE DOMINANT SAMPLE OF 54 (18 SUSTENANCE DRIVEN, 18 OUTER DIRECTED AND 18 INNER DIRECTED)**

The differences between mean factor scores for the three were examined. An asterisk indicates the position of significant difference at <0.05 between the food risk perception mean factor scores of the three Social Value Groups. The standard Post Hoc significant test (LSD) was used along side Tukey's HSD test (a more conservative and stringent test) to identify where the significant differences lie.

Table 4.25

Factor	Mean Scores			Sd using LSD			Sd using Tukey's HSD		
	Susten	Inner	Outer	I/O	I/S	S/O	I/O	I/S	S/O
1 Artificial									
2 High Cost	.8400	.6638	-.3551	*		*	*		*
3 Nutrition									
4 Cheap									
5 Eco/Ethics	-.200	.6425	-.2876	*	*		*		
6 Unfamiliar									
7 Unfamiliar									

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Factor 2 'High Cost' and Factor 5 'Ecological / Ethics' are the only two factors where significant difference lie. Interestingly the three groups demonstrate quite different profiles. These results support those presented in Table 4.23.

#### **4.3.4 INVESTIGATION OF THE RELATIONSHIP BETWEEN SOCIAL VALUE VARIABLES AND FOOD RISK PERCEPTIONS VARIABLES**

The following results are based on the Pearson Correlations for the sample of 54 which express the relationships between the individual social value variables (screening instrument Part Two of the questionnaire) and the individual food risk perception variables (Part Three of the questionnaire) (Appendix 2.4 details the full correlation matrix).

Plus and minus signs illustrate positive and negative significant correlations ( $< 0.05$ ) between social value variables and food risk perception variables.

Tables 4.26 - 4.31 present the results of this analysis. Each table focusing on one of the 7 factors identified in Table 4.24, (factors 6 and 7 are combined and factor 9 is omitted).

A detailed examination of the relationships between the scores for the individual social value group variables (Part Two) and those for the individual food risk perception variables (Part Three) for the homogeneous sample of 215 respondents was also conducted. Appendix 6 presents the results of this analysis. Appendix 3.4 details the full correlation matrix for the homogeneous sample of 215. Importantly the results for both sets of analysis are comparable and supportive.

**Table 4.26** Factor 1 Technology (man made additions to foodstuffs) Risks

	Social Value Group	Genetic Engineering	Artificial Preservative	Artificial Sweeteners	Artificial colours	Artificial Flavours
Status	<b>Outer</b>	-			-	-
Mysuccess	<b>Outer</b>		-		-	
Discovery	<b>Inner</b>	+		+	+	+
Fewrules	<b>Inner</b>				+	
Alternat	<b>Inner</b>	+	+	+	+	+

Results indicate that Inner directed values positively correlate with concern over technological risks. In sharp contrast Outer directed values are negatively correlated suggesting that an increase in Outer directedness seems to be associated with decrease in concern about such risks.

**Table 4.27** Factor 2 High Cost as a Risk

	Social Value Group	Expensive Brand	Expensive Packaging	Paying more for Pre prepared food	Eating out	Expensive Store
Trad	<b>Susten</b>				-	
Secure	<b>Susten</b>	+				
Nochange	<b>Susten</b>		+			+
Setways	<b>Susten</b>					+
Holdlife	<b>Susten</b>	+	+			
Appear	<b>Outer</b>		-	-	-	
Status	<b>Outer</b>		-		-	-
Best	<b>Outer</b>		-			-
Winning	<b>Outer</b>	-	-	-		-
Mysuccess	<b>Outer</b>		-	-	-	
Ahead	<b>Outer</b>		-	-		-
Alternat	<b>Inner</b>		+	+		
World	<b>Inner</b>			+		
Unconven	<b>Inner</b>				+	

This set of results are consistent and strong. There is a positive correlation between Inner directed and Sustenance driven values and high cost as a perceived risk (interestingly, results of Interview Two indicated that whilst Sustenance driven

consumers associated high cost with financial risk, Inner directed consumers viewed high cost as unnecessary and wasteful). In sharp contrast to the Inner directed and Sustenance driven values, all six Outer directed value variables have a significantly negative correlation with one or more of the high cost variables.

**Table 4.28** Factor 3 Nutritional Risks

	Social Value Group	High Salt	High Fat	*Misleading Information
Contacts	<b>Susten</b>		-	-
Alternat	<b>Inner</b>	+		+
Voiceops	<b>Inner</b>			+
Mysuccess	<b>Outer</b>			
Best	<b>Outer</b>	+	+	
Status	<b>Outer</b>		+	

\* Results of the factor analysis indicate that there is an association between misleading information and nutrition, perhaps via the issue of nutritional labelling.

It appears that the values most associated with nutrition per se are the Outer directed ones. The results indicate that Inner directed concern is in the context of misleading information.

**Table 4.29** Factor 4 Cheap (Image Associated) Risks

	Social Value Group	Cheap Store	Image of Store	Own label	Cheap Brand
Secure	<b>Susten</b>			-	
Setways	<b>Susten</b>		-		
Trad	<b>Susten</b>	+			
Contacts	<b>Susten</b>		-		
Nochange	<b>Susten</b>	+	-		
Best	<b>Outer</b>		+		
Ahead	<b>Outer</b>		+		+
Winning	<b>Outer</b>				+
World	<b>Inner</b>	-			

Outer directed value variables correlated positively with the food risk 'cheap' variables. This relationship is not however as convincing as was expected. Similarly there is some

indication of a negative correlation between this dimension and the values of the Sustenance driven and Inner directed groups though again this is not as persuasive as might have been anticipated.

**Table 4.30** Factor 5 Ecological (conservationist / environmental) Risks

	Social Value Group	Pesticides / Fertilisers	Non recyclable Packaging	Controversial operations
Contacts	Susten		-	
Setways	Susten			
Nochange	Susten		-	
Winning	Outer	-		-
Status	Outer	-		
Ahead	Outer	-	+	
Mysuccess	Outer			
Alternat	Inner	+	+	+
Voiceops	Inner		+	
Fewrules	Inner			+
Discovery	Inner	+	+	+

A strong set of results indicating that the more a consumer exhibits Inner directed values the more likely it is that they will perceive ecological and environmental risks as a concern (Inner directed consumers have environmental issues embedded deep in their personal philosophy). In contrast the results suggest Outer directed and Sustenance directed values correlate negatively with environmental / ecological concern.

**Table 4.31** Factor 6/7 Unfamiliarity as Risk

	Social Value Group	Different Brand	Unfamiliar ingredients
Hold	Susten	+	
Trad	Susten	+	+
Secure	Susten		
Nochange	Susten		+
Appear	Outer	+	
World	Inner	-	
Fewrules	Inner	-	

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Whilst this set of results presents an unclear picture for the Outer directed set of variables there is some indication of a negative correlation for the Inner directed ones. There is a relatively clear indication that 'unfamiliarity' is an increasing concern the more the respondent exhibits Sustenance driven values. (Unfamiliarity is a big issue for Sustenance driven consumers, change and unfamiliarity threatens their stability and makes them feel insecure).

#### Factor 8 BSE Risk

Inconclusive results may have been the result of this research occurred at the height of the BSE hysteria and in the midst of much confusion over the scare.

This set of results is summarised in section 4.3.4.1

#### **4.3.4.1 INVESTIGATION OF THE RELATIONSHIP BETWEEN SOCIAL VALUE GROUP SCORES AND FOOD RISK PERCEPTIONS VARIABLES (215 respondents)**

The following table identifies the results of the Pearson correlation (using the sample of 215) between respondents' Sustenance driven score, Inner directed score, Outer directed score and their scores for each risk relieving strategy variable. All positive (+ve) and negative (-ve) correlations identified in Table 4.32 are significant (<0.05).

**Table 4.32 Results of Pearson Correlation for Social Value Group (SVG) Score and Food Risk Variable Score for sample of 215**

Sustenance Driven	F	Sustenance Driven	F	Outer Directed	F	Outer Directed	F	Inner Directed	F	Inner Directed	F
+ve correlation		-ve correlation		+ve correlation		-ve correlation		+ve correlation		-ve correlation	
Expensive Supermarket	2	Artificial Colouring	1	Cheap Supermarket	4	Expensive Packaging	2	Artificial Sweeteners	1		
Expensive Brand	2	Artificial Flavouring	1	Cheap Brand	4	Expensive Supermarket	2	Artificial Colouring	1		
Expensive Packaging	2	Artificial Preservatives	1	Image of Supermarket	4	Pre prepared	2	Artificial Flavouring	1		
Unfamiliar Ingredients	6 / 7	Non Recyclable Packaging	5	Different Brand	6 / 7	Eating Out	2	Expensive Packaging	2		
Different Brand	6 / 7	Controversial Operations	5			Non Recyclable Packaging	5	Pre prepared	2		
		Low Fibre	9			Pesticides and Fertilisers	5	Expensive Supermarket	2		
						Controversial Operations	5	Eating Out	2		
								Controversial Operations	5		
								Pesticides and Fertilisers	5		
								Non Recyclable Packaging	5		
								Non Organic	6		

*F = Factor illustrated in Table 4.24*

Table 4.32 identifies that the higher the Sustenance driven score the higher the concern for risk associated with 'high cost', and 'the unfamiliar' and the less concern there is for risks associated with 'technology' and 'ecology / ethics'. The higher the Outer directed score the more concern there is for risks associated with 'cheap/image' and the less concern there is for risks associated with 'high cost' and 'ecology / ethics'. Whilst the Sustenance driven and the Outer directed scores both negatively correlate with 'ecology / ethics' related risks, they correlate in opposite directions with 'high cost' and 'cheap/image' related risk. The higher the Inner directed score the more concern there is for 'technological', 'high cost' and 'ecological / ethics' related risks. Interestingly and importantly no food risk perception variables significantly correlated in a negative direction with the Inner directed score, implying that the more Inner directed the score the less likely it is that risks will not be perceived.

#### **4.4 ANALYSIS OF RISK RELIEVING STRATEGIES QUESTIONNAIRE (Part Four Of The Questionnaire)**

Analysis of the results of Part Four of the questionnaire aimed to investigate how social values influenced risk relieving strategies (research objective 4 Chapter One).

##### **4.4.1 EXAMINATION OF MEANS**

Table 4.33 details the mean scores for the Risk Relieving Strategy variables for the dominant sample of 18 Sustenance Driven, 18 Inner Directed and 18 Outer Directed respondents. These scores are presented next to the mean score for the total homogeneous sample of 215 respondents.

Importantly responses were expressed using a Likert scale of 1 – 9, 5 being the midpoint on the scale, 9 indicating the highest level at which the risk relieving strategy was effective. The means are presented in descending order those at the top of the table indicating that the strategy is highly effective at relieving risk and those at the bottom are least effective at relieving risk.

**Table 4.33 Risk Relieving Strategy Variable Mean Scores**

Part 4	Mean Score for sample of 215	Part 4	Mean Score 18 Susten	Part 4	Mean Score 18 Inner	Part 4	Mean Score 18 Outer
indeapro	6.34	fambrand	6.00	indeapro	6.61	indeapro	6.61
comlabel	5.85	indeapro	5.17	comlabel	6.50	brandrep	6.44
fambrand	5.37	brandrep	5.06	fambrand	4.82	fambrand	6.06
brandrep	5.20	comlabel	4.83	brandrep	4.22	comlabel	5.89
expert	4.65	freesamp	4.28	freesamp	3.89	expert	5.72
freesamp	4.14	expert	4.28	expert	3.78	supimage	5.11
supimage	3.80	supimage	4.28	supimage	3.33	govappro	4.94
moneybac	3.55	moneybac	4.22	moneybac	3.06	freesamp	4.83
similyou	3.35	similyou	4.06	similyou	3.00	expbra	4.83
govappro	3.27	family	3.89	cheapers	2.89	similyou	4.56
family	3.16	govappro	3.44	family	2.78	expsuper	4.56
expsuper	3.12	cheapers	3.11	expsuper	2.72	moneybac	4.39
expbra	3.07	cheaperb	2.94	cheaperb	2.72	family	4.00
p4advert	2.64	p4advert	2.72	expbra	2.61	p4advert	3.83
cheapers	2.37	celeb	2.56	govappro	2.06	cheapers	3.06
cheaperb	2.25	expsuper	2.33	p4advert	1.67	celeb	2.94
celeb	1.85	expbra	1.94	celeb	1.22	cheaperb	2.67

Interestingly the top four risk relieving strategies are shared by all three Social Value Groups and the total homogeneous sample of 215. These being *'The food ....has been approved by an independent / private testing company'*, *'Buy the brand that has a good reputation'*, *'Buy the brand that I have always bought and am familiar with'* and *'The food has clear and comprehensive labelling'* indicating that overall these are the most effective risk relieving strategies. Examining the Social Value Group risk relieving strategy profiles as a whole one can observe that mean scores are the highest for the Outer directed group and lowest for the Inner directed group.

Six Outer directed mean scores are above the midway point of 5, indicating these are perceived as effective strategies. In contrast, whilst the Inner directed scores for *'The food ....has been approved by an independent / private testing company'* and *'The food has clear and comprehensive labelling'* are convincingly above the midway point of a

mean score of 5 all other strategies are under the midway point indicating perhaps that these are the only two strategies which are effective risk relieving strategies for the Inner directed group. The Sustenance driven group identify *'Buy the brand that I have always bought and am familiar with'* as a clearly perceived effective strategy. *'The food ....has been approved by an independent / private testing company'* and *'Buy the brand that has a good reputation'* both follow at the midway point.

#### 4.4.2 ONE WAY ANALYSIS OF VARIANCE (Independent Groups)

Analysis of Variance was used to further investigate the risk relieving strategies mean scores, for the 18 Sustenance driven, 18 Outer directed and 18 Inner directed respondents. It was believed that any differences in perception of effective risk relieving strategies could be attributed to differences in the social values identified by the screening instrument (Part Two). The differences between these mean scores were examined. An asterisk indicates significant differences at  $<0.05$  between the risk relieving strategy mean scores of the Sustenance driven, Outer directed and Inner directed Social Value Groups. The standard Post Hoc significant test (LSD) was used along side Tukey's HSD test (a more conservative and stringent test) to identify where the significant differences lie.

**Table 4.34 Results of the Analysis of Variance for Food Risk Relieving Strategies**

	Mean Scores			Sig dif using LSD			Sig dif using Tukey's HSD		
	Susten	Inner	Outer	I/O	I/S	S/O	I/O	I/S	S/O
<b>p4advert</b>	2.72	1.67	3.83	*		*	*		
<b>similyou</b>	4.06	3.00	4.56	*					
<b>freesamp</b>	4.28	3.89	4.83						
<b>fambrand</b>	6.00	4.82	6.06						
<b>govappro</b>	3.44	2.06	4.94	*		*	*		
<b>expert</b>	4.28	3.78	5.72	*					
<b>brandrep</b>	5.06	4.22	6.44	*			*		

family	3.89	2.78	4.00						
cheapers	3.11	2.89	3.06						
expsuper	2.33	2.72	4.56	*		*	*		*
comlabel	4.83	6.50	5.89		*			*	
celeb	2.56	1.22	2.94	*	*		*		
moneybac	4.22	3.06	4.39						
supimage	4.28	3.33	5.11	*			*		
cheaperb	2.94	2.72	2.67						
expbra	1.94	2.61	4.83	*		*	*		*
indeapro	5.17	6.61	6.61		*	*			

**Table 4.35 Summary of Results of the Analysis of Variance for Food Risk Relieving Strategies (Significant differences only)**

	Mean Scores			Sig dif using LSD			Sig dif using Turkey's HSD		
	Susten	Inner	Outer	I/O	I/S	S/O	I/O	I/S	S/O
p4advert	2.72	1.67	3.83	*		*	*		
similyou	4.06	3.00	4.56	*					
govappro	3.44	2.06	4.94	*		*	*		
expert	4.28	3.78	5.72	*					
brandrep	5.06	4.22	6.44	*			*		
expsuper	2.33	2.72	4.56	*		*	*		*
comlabel	4.83	6.50	5.89		*			*	
celeb	2.56	1.22	2.94	*	*		*		
supimage	4.28	3.33	5.11	*			*		
expbra	1.94	2.61	4.83	*		*	*		*
indeapro	5.17	6.61	6.61		*	*			

A high proportion of the risk relieving variables (eleven of the seventeen) display significant differences between the three Social Value Group's mean scores. Many significant differences were identified between the Inner directed and the Outer directed groups. Interestingly far fewer significant differences were identified between Inner

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directed and Sustenance driven and Sustenance driven and Outer directed. These differences are presented and discussed further in Table 4.37.

### **4.4.3 FACTOR ANALYSIS**

The correlation matrix for the risk relieving strategies (Part Four of the questionnaire) was explored in great length (Full matrix in Appendix 3.3 for sample of 215, 2.3 for sample of 54). The matrix provided an invaluable insight into the relationships between the risk relieving strategies. Factor analysis was used to simplify these with a view to identifying underlying themes.

Varimax rotation was applied to aid the interpretation of the principal components (factors). The analysis was conducted on the total homogeneous sample of 215, the number of respondents in the dominant sample (54) was far too small to carry out the analysis.

As suggested by Piggott and Sharman (1986) cited in Hair (1995) only those factors with an eigenvalue greater than one were retained in the final solution. Factor loadings of less than 0.5 were initially suppressed and then at 0.4 and 0.3 with a view to exploring and optimising the interpretation of the results.

#### **4.4.3.1 RESULTS OF THE FACTOR ANALYSIS**

The Kaiser - Mayer - Olkin (KMO) measure of sampling adequacy was .78421 i.e. greater than 0.5 regarded as satisfactory for factor analysis to proceed.

A Barlett test of Sphericity of 1658.8794 (significance of 0.00000) indicated that the correlation matrix was suitable for factor analysis.

Table 4.36, shows the five factors extracted and the loadings of the original variables on those factors. The Table illustrates the results of the factor analysis when loadings are suppressed at levels of 0.5, 0.4 and 0.3 respectively.

**Table 4.36 Five Factor Solution for Food Risk Relieving Strategy Variables**

1 Societal Acceptance / Endorsement	2 Low Cost	3 Branding (Product Orientation)	4 High Cost/ Image	5 Authoritarian Reassurance
Advert .73495	Cheapers .85109	Comlabel .74397	Expsuper .82656	Expert .79993
Similyou .71014	Cheaperb .84605	Fambrand .60929	Expbra .88348	Indeapro .73165
Family .56154	Moneybac .61463	Brandrep .59314	Supimage .61936	Govapro .58688
Celeb .53960		Freesamp .58732		
Govapro .49482	Celeb .47736	Moneybac .42934		
	Family .42189	Indeapro .40115		
Freesamp .39489		Supimage .39856	Brandrep .30032	
Brandrep .38520				
Fambrand .33816				
Expert .33357				

Five factors were identified which accounted for 67.9% of the overall variance in the data. The first factor was highly associated with 'Societal Acceptance / Endorsement' the second with 'Low Cost', the third with 'Branding (product orientation)' the fourth with

'High Cost / Image' and the fifth with 'Authoritarian Reassurance'. Labels were given to each factor after the composites had been examined.

**4.4.3.2 RESULTS OF THE ANALYSIS OF VARIANCE FOR THE FACTOR SCORES FOR THE DOMINANT SAMPLE OF 54 (18 Sustenance Driven, 18 Outer Directed and 18 Inner Directed)**

The significant differences between the mean factor scores for the three groups were examined. An asterisk indicates the position of significant difference at  $<0.05$  between the risk relieving strategy mean factor scores of the three Social Value Groups. The standard Post Hoc significant test (LSD) was used along side Tukey's HSD test (a more conservative and stringent test) to identify where the significant differences lie.

**Table 4.37**

Factor	Mean Scores			Sd using LSD			Sd using Tukey's HSD		
	Susten	Inner	Outer	I/O	I/S	S/O	I/O	I/S	S/O
1 Societal	.5706	-.6731	.6130	*	*		*	*	
2 Low Cost									
3 Branding									
4 High Cost	-.4799	-.1846	.7284	*		*	*		*
5 Author Reassurance	-.4218	-.1136	.2800			*			*

These results mirror those presented in Table 4.35. Factor 1 'societal acceptance / endorsement' illustrates a significant difference between the Inner directed and Outer directed and between the Inner directed and the Sustenance driven groups. If one examines the Inner directed mean factor score it is clearly significantly lower than the Sustenance driven and Outer directed mean factor scores which are comparable. Factor 4 'High Cost' presents results which support the results of Part three of the questionnaire. Those groups which identified 'high cost' as a perceived risk (Sustenance driven and Inner directed) clearly reject it as a risk relieving strategy and those rejecting it as a perceived risk identify it as an effective risk relieving strategy. These results

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confirm the validity of the 'high cost' variables in Part Three and Part Four of the questionnaire. Factor 5 'Authoritarian reassurance' presents a significant difference between the Sustenance driven and the Outer directed. Table (4.35) also identified significant differences between Inner directed and Outer directed in this area. Table 4.37 highlights that the three Social Value Groups have quite different profiles. These results confirm those illustrated in Tables 4.34 and Table 4.35.

#### **4.4.4 INVESTIGATION OF THE RELATIONSHIPS BETWEEN SOCIAL VALUE VARIABLES AND RISK RELIEVING STRATEGY VARIABLES**

The following results based on Pearson Correlations express the relationships between the scores for the individual social value variables (screening instrument Part Two of the questionnaire) and those for the individual risk relieving strategy variables (Part Four of the questionnaire) for the sample of 54 respondents. (Appendix 2.5 details the full correlation matrix).

Plus and minus signs illustrate positive and negative significant correlations ( $< 0.05$ ) between social value variables and food risk perception variables.

Tables 4.38 - 4.42 present the results of this analysis. Each table focusing on one of the 5 factors identified in Chapter 4.

An identical analysis was undertaken for all 215 respondents, the results which are very similar to those for the 54 most dominant are presented in Appendix 7 (correlation matrix Appendix 3.5).

Tables 4.38 - 4.42 examine the aforementioned relationships. Each table focusing on one of the 5 factor solutions illustrated in table 4.36.

**Table 4.38** Factor 1 Societal Acceptance / Endorsement as a Risk Relieving Strategy

	Social Value Group	Advertised	Someone similar to you approves	Family approves	Celebrity approves
Contacts	Susten			+	
Trad	Susten	+			
Best	Outer	+			
Winning	Outer	+			
Status	Outer	+			+
Ahead	Outer	+	+		+
Mysuccess	Outer	+	+		
Appear	Outer				+
World	Inner	-			
Unconvent	Inner				-
Voiceops	Inner				-
Alternat	Inner	-	-		-

A significant positive correlation exists between Outer directed values and the effectiveness of 'Societal acceptance / endorsement' as a risk relieving strategy (to a lesser degree this relationship also holds for Sustenance driven values). Negative correlations are indicated for Inner directed values in respect of this strategy.

**Table 4.39** Factor 2 Low Cost as a Risk Relieving Strategy

	Social Value Group	Cheaper Store	Money back Guarantee	Cheaper Brand
Secure	Susten	+	+	
Best	Outer			+

The results are not convincing. There is some evidence of a positive correlation between low cost as an effective risk relieving strategy and Sustenance driven variables.

**Table 4.40** Factor 3 Branding (Product Orientation) as a Risk Relieving Strategy

	Social Value Group	Familiar brand	Brand reputation	*Comprehens ive labelling
Holdlife	Susten			-
Contacts	Susten			-
Nochange	Susten			-
Best	Outer		+	
Winning	Outer		+	
Ahead	Outer		+	
Status	Outer		+	
Alternat	Inner	-		
World	Inner		-	
Unconvent	Inner			+
Voiceops	Inner			+

\* Results of the factor analysis indicates that there is an association between comprehensive labelling and Branding.

Positive correlations exist between Outer directed variables and brand reputation as an effective risk relieving / reducing strategy. A positive correlation exists for Inner directed values and comprehensive labelling as an effective risk relieving strategy and in so far as this feature is associated with branded products / services, Inner directed consumers give their support to brands. In sharp contrast the more Sustenance driven values correlate negatively with comprehensive labelling a risk relieving strategy.

**Table 4.41** Factor 4 High Cost (Image) as a Risk Relieving Strategy

	Social Value Group	Expensive Store	Store Image	Expensive Brand
Nochange	Susten			-
Contacts	Susten	-		
Status	Outer	+	+	+
Ahead	Outer	+	+	+
Best	Outer	+	+	+
Appear	Outer		+	
Mysuccess	Outer		+	
Winning	Outer	+		+
World	Inner		-	
Alternat	Inner			-

With all Outer directed value variables positively correlating with a minimum of one high cost variable these results indicate that high cost is an extremely effective way of relieving perceived risk for Outer directed consumers. This strategy appears to be unique to Outer directed consumers with both Sustenance driven and Inner directed values presenting negative correlations.

**Table 4.42** Factor 5 Authoritarian Reassurance as a Risk Relieving Strategy

	Social Value Group	Government Approval	Independent Approval	Expert Approval
Holdlife	<b>Susten</b>		-	
Contacts	<b>Susten</b>		-	
Nochange	<b>Susten</b>		-	
Status	<b>Outer</b>	+		+
Best	<b>Outer</b>	+		+
Winning	<b>Outer</b>	+		
Ahead	<b>Outer</b>	+		+
Mysuccess	<b>Outer</b>	+		+
Discovery	<b>Inner</b>	-	+	
World	<b>Inner</b>			-
Alternat	<b>Inner</b>	-		-

Authoritarian reassurance presents interesting results. Outer directed values are positively correlated with the approval of the Government and experts as effective risk relieving strategies. In contrast Inner directed values negatively correlate with these strategies and are more likely to positively correlate with the approval of Independent agencies, whilst for Sustenance driven values the reverse is the case.

#### **4.4.4.1 INVESTIGATION OF THE RELATIONSHIP BETWEEN SOCIAL VALUE GROUP SCORES AND RISK RELIEVING STRATEGY VARIABLES (215 respondents)**

The following table identifies the results of the Pearson correlations (for total sample of 215) between respondents Sustenance driven scores, Inner directed scores, Outer directed scores and each risk relieving strategy variable. All positive (+ve) and

negative (-ve) correlations identified in Table 4.43 are significant (<0.05).

**Table 4.43 Results of Pearson Correlation for Social Value Group Score and Risk Relieving Strategy Variable Scores for Sample of 215**

Sustenance Driven	F	Sustenance Driven	F	Outer Directed	F	Outer Directed	F	Inner Directed	F	Inner Directed	F
+ve correlation		-ve correlation		+ve correlation		-ve correlation		+ve correlation		-ve correlation	
Advertised	1	Comprehensive Labelling	3	Advertised	1			Comprehensive Labelling	3	Advertised (-ve)	1
Similar to yourself	1	Independent Approval	5	Family	1					Familiar brand (-ve)	3
Family	1			Celebrity Endorsement	1					Brand Reputation (-ve)	3
Celebrity Endorsement	1			Money Back	2					Supermarket Image (-ve)	4
Familiar Brand	3			Familiar Brand	3					Government Approved (-ve)	5
				Brand Reputation	3						
				Free Sample	3						
				Supermarket Image	4						
				Expensive Brand	4						
				Expensive Supermarket	4						
				Government Approved	5						

*F = Factor illustrated in Table 4.36*

Table 4.43 identifies that the higher the Sustenance driven score the more effective risk relieving strategies associated with 'societal acceptance / endorsement' and 'familiar

brand'. 'Comprehensive labelling' negatively correlates with Sustenance score as does 'Independent approval'. Negative correlations suggesting that the more Sustenance driven the respondent the more likely it is that 'comprehensive labelling' and 'Independent approval' are ineffective risk relieving strategies. The Outer directed results are interesting and a number of significant positive correlations are observed. 'Societal acceptance / endorsement', 'branding (product orientation)' and 'high cost' are key risk relieving strategies. Outer directed results suggest that these are no significant negative correlations with any of the risk relieving strategies investigated. In contrast to the Outer directed results the Inner directed results present a different picture with only one significant positive correlation for 'comprehensive labelling'. A large number of strategies are negatively correlated with the Inner directed (SVG) score across the range of factors. Analysis of the sample of 54 generated comparative results.

These results support results presented in Tables 4.38 - 4.42.

## 4.5 SUMMARY

Analysis of the results of the Social Value Group screening instrument support its robustness when used in practice on a large number of respondents.

Factor analysis greatly simplified a complexity of variables associated with risk perception and risk relieving strategies.

Relationships between Social Values and Food Risk Perceptions and Risk Relieving Strategies were identified, as were significant differences between these for the three Social Value Groups investigated.

With respect to the Food Risk Perceptions of the entire sample of 215 respondents the analysis identified positive significant correlations between Sustenance driven values and 'high cost risks' and 'unfamiliarity risks'. Significant negative correlations were identified between this set of social values and the set of risks labelled as 'technology' (in the context of artificial) and the set of risks labelled as 'environmental / ecological' (in the

context of non-recyclable packaging and controversial operations not 'pesticides and fertilisers'). Interestingly Outer directed values positively correlate with the set of risks labelled as 'cheap' and with the risk labelled 'different brand'. Significant negative correlations were identified between Outer directed values and the set of risks labelled as 'high cost' and those labelled as 'environmental / ecological' (to include non-recyclable packaging, controversial operations and pesticides and fertilisers). Inner directed values positively correlated with the areas 'technology', 'high cost', 'environmental / ecological' and the risk variables 'non-organic' and 'misleading information', importantly Inner directed values did not correlate negatively with any food risk perception.

The analysis of variance identified significant differences between Inner directed and Outer directed groups and between Sustenance driven and Outer directed groups in the area of 'high cost' as a perceived risk. Similarly significant differences were identified between Inner directed and Outer directed groups and between Inner directed and Sustenance driven groups for 'environmental / ecology' as a perceived risk.

With respect to Risk Relieving / Avoiding Strategies the analysis identified positive significant correlations between Sustenance driven values and the set of risk relieving strategies labelled as 'societal acceptance / endorsement' and the strategy 'familiar brand'. The risk relieving strategies 'comprehensive labelling' and 'independent approval' correlated negatively with Sustenance drivenness. Interestingly whilst Outer directed values do not negatively correlate with any of the risk relieving strategies this set of values positively correlate with an extensive range of strategies including 'societal acceptance / endorsement', 'high cost', 'authoritarian reassurance' and 'branding'. In contrast Inner directed values positively correlated with only one relieving strategy, i.e. 'comprehensive labelling'.

The analysis of variance identified significant differences between Inner directed and Outer directed and between Inner directed and Sustenance driven in the area of 'societal acceptance / endorsement' as a risk relieving strategy. Similarly significant differences were identified between Inner directed and Outer directed and between Sustenance driven and 'Outer directed' for 'high cost' and between Sustenance driven and Outer directed for 'authoritarian reassurance' as risk relieving strategies.

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The results indicate that where few or no risk relieving strategies are perceived (i.e. in the case of the Inner directed respondents) a correspondingly high number of risks are perceived, the reverse being similarly true i.e. where many risk relieving strategies are perceived (as in the case of Outer directed respondents) few risks are perceived. This finding raises the issue to what comes first and which area is most critical for consumer research.

Qualitative interviews were used to confirm and clarify quantitative results whilst increasing the depth of understanding.

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## CHAPTER FIVE

### QUALITATIVE ANALYSIS

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The following chapter presents the qualitative results of the research.

The chapter is structured into sections focusing on the results of each of the three sets of Interviews undertaken as described in Chapter Three. Each section is subdivided to illustrate the responses of the members of each of the three Social Value Groups in turn. The structure also allows readers to refer back to the quantitative results described in Chapter Four.

The results of Interview One will firstly be presented and analysed. Interview One took place during the pilot study, its purpose to confirm the validity of the SVG screening instrument as a tool for identifying Social Value Group membership and to further explore the social values of those groups. All nineteen members of the pilot sample participated in Interview One. The analysis presented in this chapter focuses on the interviews of the three Inner directed, three Outer directed and the three Sustenance driven respondents draw from the pilot sample of nineteen.

The results of Interview two and three are then presented and analysed.

Interview three was designed to explore, clarify and verify responses to parts three and four of the main study Questionnaire (food risk perceptions) and (risk relieving strategies). The analysis is focused on interviews of fourteen respondents obtained from the main study sample (Interview 3) as well as a small number of food risk perception interviews undertaken during the pilot (Interview 2).

In all cases the individuals fell into the group of interest identified in Chapter Three i.e. women aged 25 - 45, with no dependent children, economically active with an income above the national household average.

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## 5.1 ANALYSIS OF QUALITATIVE INTERVIEWS

The richness of the data combined with a relatively small number of transcripts meant that it was feasible to manually analyse the transcripts. Whilst this was a lengthy process it allowed for a thorough, in-depth and rigorous examination of the responses.

The selection of quotes was both systematic and objective. The aim was that the criteria for selecting quotes should ensure that all interviewees were represented for all the areas to be investigated and that the quotes selected represented the views of those respondents accurately. Fundamentally in an attempt to produce valid interpretations every effort was made to avoid bias when selecting quotes; similarly contradictions were actively sought out.

Interviewees were presented with a structured framework of questions for Interview One and as such a set of responses for all of the areas, 'Family', 'Work and Leisure', 'Attitudes Towards Authority' and 'Organisational Structures' were obtained and are included in the following analysis. Some interviewees clearly responded in more detail than others and the number of quotes reflect this. Repetitions by the same interviewee are not included. A response in every question area by every respondent in Interview One is included with the exception of interviewee S1 who for personal reasons discussed the 'Family' in an way inappropriate for the analysis. Similarly interviewee O2 and interviewee O3 cut their interviews short due to work commitments and as such responses to 'what might improve their lifestyle' and ' what makes them feel good about themselves' were not obtained.

Unlike Interview One, Interview Two and Interview Three questions were determined by the Interviewee's questionnaire responses. The areas of questioning focused only on extreme responses, as such an Interviewee's transcript only reflected areas of risk that the interviewee was deeply concerned about or had very little concern about. Similarly only risk relieving strategies which were indicated as extremely effective or not at all effective were discussed.

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The organising framework for selecting quotes was fundamentally that of MacNulty's work on the differing beliefs, attitudes, dispositions and motivations of sustenance driven, outer directed and inner directed consumers (1985).

Thus, for example, in the analysis of Interview One (social values), the quotes selected for inclusion evidenced the differing values, attitudes and dispositions of the three groups (sustenance driven, outer directed and inner directed) in the areas of 'family', 'work and leisure', 'attitudes towards authority' and 'organisational structures' as outlined by MacNulty (1985). The aim of this approach was to validate the usefulness of the social value group screening instrument.

Quotes derived from interviews three (food risk perception) and four (risk relieving strategies) were organised into the areas generated by the factor analyses. The outcomes of the two factor analyses undertaken providing meaningful and useful initial frameworks for this purpose.

As with interview one, the quotes selected for inclusion were those that highlighted motivational differences between sustenance driven, outer directed and inner directed groups in each of the areas concerned and which could be made sense of by using MacNulty's insights as the organising principal. Thus, for example in the area of (technology related food risk perceptions" themes such as fear of the unknown (sustenance driven consumers), issues of personal control (inner directed consumers) and belief in the system (outer directed consumers) were identified as significant and quotes were included.

By consistently using MacNulty's framework as the overarching frame of reference for analysis of the qualitative material, it was possible to address the research question, i.e. whether or not and, if so, how the social values concerned influenced respondents food risk perceptions and risk relieving strategies.

The three sets of interviews provide a means of triangulation which aids in both the clarification of interviewee values, attitudes and perceptions and the validation of the

individual interviews. Fundamentally the Qualitative analysis supports the Quantitative findings.

Appendix 8 details the qualitative samples for each of the three Interview stages. Appendix 9 maps ownership of the quotes included in the analysis.

## **5.2 INTERVIEW ONE SOCIAL VALUES AND SOCIAL LIFE / LIFESTYLE**

Interview One, as previously discussed in Chapter Three aimed to explore respondents' motivations, values and attitudes with regard to fundamental elements of their social life / lifestyle, focusing on those areas explored by MacNulty (1985) to include the family, work and leisure, attitudes towards authority and organisational structure. Interviewees were also asked 'what might improve their lifestyle' and 'what made them feel good about themselves'.

Interview One was conducted one week after the respondents had completed the screening instrument questionnaire.

As previously mentioned the responses of three Outer directed consumers, three Inner directed consumers, three Sustenance driven consumers are included. These nine respondents were drawn from an initial pilot sample of nineteen.

### **5.2.1 FAMILY**

As previously examined in the Literature Review (Theoretical framework) MacNulty (1985: 333) identified Sustenance driven consumers as,

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“conservative, traditional, conventional, pragmatic and devoted to his family, which he places above other things and for which he makes substantial self sacrifice”.

“He tends to be against change and his interest in the future is to ensure his family’s security”

Sustenance driven respondents believe the family unit supports their need for security and stability. Resistant to change he describes them as “clannish”.

In contrast the Outer directed consumer’s priority is that the family be ‘a credit to them’,

“They are interested in their family’s appearance and behaviour....”

MacNulty (1985: 334, 342) suggested that Inner directed consumers are

“highly individualistic”

“They reject traditional authority, and are a powerful force for individual autonomy and the use of new relationships”.

The following quotes were extracted from Interview One transcripts.

#### **5.2.1.1 SUSTENANCE DRIVEN RESPONDENTS**

"The family is very important" (S3)

"Members of the family come first...." (S2)

"If we are in trouble there is always someone there we can call on" (S2)

"Always in touch" (S2)

"Really important for security for everyone that's in the family" (S2)

"Influence me definitely" (S2)

"(Family provides)..support, security...." (S2)

"(Family provides).....love, security, being wanted...." (S3)

“Family there to support everyone if they need it” (S2)

“I would always stick up for my family no matter what” (S3)

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"Its an important thing in my life to have a good friend but its just not the same as family, it's no where near as important as family, they come first" (S3)

## **SUMMARY**

These quotes strongly support MacNulty (1985). Sustenance driven respondents stressed that the family was fundamental to their day to day life. They do value friendship however the interviewees suggest that their family always comes first. As a whole Sustenance driven respondents appear proud, loyal and defensive of their family unit. Additionally they suggest that they were greatly influenced by their family particularly the nuclear family.

### **5.2.1.2 OUTER DIRECTED RESPONDENTS**

"A unit of stability, they give me support" (O1)

"(I rely on them) if I am down" (O1)

"(Influence me) no my family never have" (O2)

"I am very independent" (O1)

"I like people to think favourably about the family" (O3)

"People's opinions of my family influences my opinions of them to an extent"  
(O3)

"The family unit to me means stability" (O3)

"I would like people to think that I came from a middle - working class respectable family where I have had a very loving supportive childhood" (O1)

"If someone says something about someone in my family, against them I will find out what it is that has created that impression and do everything that I can to put things in a favourable light again. So yes it is very important." (O1)

"Family is a background concern of mine.... I don't really see my family at all....time commitments and other things don't allow me to" (O2)

"I have more contact with friends than I do family" (O2)

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## SUMMARY

Outer directed respondents stressed their independence. Rather than viewing the family as an integral part of their life, the Outer directed respondents appear to be more distant seeing the family as a cushion to fall back upon if the need arises. They saw the family as a source of stability rather than security. They appear quite adamant that their family do not influence them. Respondents believed that it was important that people outside the family unit thought favourably about their family. The interviewees suggest that friends are just as important as family.

### 5.2.1.3 INNER DIRECTED RESPONDENTS

"The way my family works is that every body is left to their own devices" (I1)

"Everybody gets on with their own thing and no body really interferes"(I1)

"It doesn't concern me what other people's opinions of us are, they probably think that we are strange anyway" (I1)

"Friends are important, I would say on the same level (as family)" (I1)

"I wouldn't necessarily let it (her family) influence me. I would decide depending on the situation" (I3)

"As an individual, I have no ambitions to be married or have a family, so in that respect it (the family) is not important to me at all" (I2)

"I do not have to see them a lot, I don't have to contact them a lot" (I3)

"It does not matter what other people think at all" (I3)

"Friends.... yes they are important, yes" (I3)

"Family is important to me..... but not necessarily as defined in the standard way (I3)

## SUMMARY

The Inner directed respondents gave a strong sense of independence. They appeared to respect the family unit and recognise it as valuable but not vital to their sense of security or self identity. Often suggesting that they have a non typical family structure. They

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don't feel their family influenced them. Friends are very important either on the same level or perhaps more so than the family.

Inner directed respondents described a complex system where the feeling and wishes of others were considered but the end decision would always be one made by one's self.

## **5.2.2 WORK AND LEISURE**

MacNulty (1985: 332) suggested that Sustenance driven consumers,

“are motivated by the need for security”

they were frequently economically disadvantaged but even when this was not the case the Sustenance driven consumer would still remain thrifty. There is a suggestion that they perceive work as a necessity and leisure very much a luxury. Outer directed consumers are described by MacNulty (1985: 333) as,

“materialistic, pushy and motivated by seeking to improve their position in financial and social terms”.

This being the case both work and leisure time would be fundamental to their self identity. In sharp contrast MacNulty (1985: 333, 334) suggested that the Inner directed consumers had a very different work/ leisure ethic, emphasising the attitudes of,

“caring, autonomous behaviour and self realisation”

Work perhaps being aiding their aim of self expression and self realisation rather than just economic / material necessity or power.

The following quotes were extracted from the interview transcripts.

### **5.2.2.1 SUSTENANCE DRIVEN RESPONDENTS**

"I would like a lot more (leisure)..... you have got to go to work and that is priority number one" (S1)

"I think they (work and leisure) are conflicting at the moment" (S2)

"Work is too important in my life I should enjoy life more" (S2)

"It's a separate part of my life and when I get home I forget about work and concentrate on my family, they are different time, parts of my life" (S3)

"I'm not bothered about going out to meet anybody else and mixing" (S3)

"I would rather be at home" (S3)

## SUMMARY

The Sustenance driven respondents consistently expressed that work and leisure are very much in conflict with each other, two very separate elements of their life. Work is seen as a necessity, a means to provide security for the family, this perhaps being the motivation. Their orientation towards the family and 'clannish' trait is emphasised further as the respondents suggest that their leisure time is spent either with family or very close to home.

### 5.2.2.2 OUTER DIRECTED RESPONDENTS

"I would say that they (work and leisure) conflict" (O1)

"They (work and leisure) do conflict with each other yes.... I don't have as much leisure time as I would like" (O3)

"I am trying to train myself to see them as two very separate things so that when I come home I can switch off. A lot of my leisure time used to be with people from work" (O1)

"My life is very hectic..... my working time and my leisure time interact and destroy each other in a way" (O2)

"I am a member of a club and I take that very seriously, you compete for the club and yourself at the end of the day yourself has to come first" (O3)

"I play badminton yes, I play competitively it would be boring otherwise, I like to be good at what I do or what's the point" (O1)

"I think my work cuts into my leisure time a lot" (O1)

"Your leisure time, you have got to try and make the most of it, it's got to be seen as valuable, important to your self and for your self" (O1)

"I am living to work" (O1)

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"I enjoy the competing.... and the winning and the experience of travelling around and meeting people" (O3)

## **SUMMARY**

Outer directed respondents suggested more contact with colleagues out of work hours than the other social value groups, often finding it difficult to distinguish between the two.

Outer directed consumers appear to be organised and carefully plan the use of their leisure time. One might further suggest that Outer directed consumers appear to view their leisure time as a commodity.

The competitive nature of the Outer directed consumer is very evident both in the context of their work and their leisure.

### **5.2.2.3 INNER DIRECTED RESPONDENTS**

"They (work and leisure) have always had a close relationship, because what I enjoy doing in my leisure time is what I like to do as my work" (I1)

"Hobbies and my work both go straight together" (I1)

"I don't see a boundary, leisure and work time, they are both living time, my aim is to make them mesh" (I2)

"I enjoy my home very much ..... I like to look to my life as a rounded whole where all my senses are used and enjoyed ..... I do a fair amount of socialising. I feel like a hotel at times" (I3)

"I don't see a boundary, there is a boundary obviously in terms of what you put your time into but in terms of the underlying values and principles that I hold they are equally applicable" (I2)

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## SUMMARY

Work and leisure time appears almost interchangeable for the Inner directed consumers, when this is not the case it does appear to be an aim. Inner directed respondents suggested that they actively seek out work that has parallels with their personal interests.

### 5.2.3 ATTITUDES TOWARDS AUTHORITY, EXPERTS AND CONVENTION EXPLORED THROUGH AN EXAMINATION OF HEALTH

MacNulty (1985: 333) suggested that Sustenance driven consumers are

“conservative, traditional and conventional”

MacNulty suggested that we might expect this group, “to be relatively limited in the scope of their behaviour. Alternative courses of action and imaginative responses to new situations will be difficult”. Outer directed consumers are described as respecting and trusting experts and authority but being motivated by wanting ‘the best’ (: 334).

MacNulty (1985) indicates that Inner directed consumers exhibit autonomous behaviour (: 334). They are further described as unorthodox, as having little trust for traditional authority and importantly, very likely to be concerned with spiritual values.

MacNulty described the Inner directed consumers as,

“...likely to reject doctrinaire solutions in favour of the moral holistic view that change is an organic process”

“broadest horizons, the highest tolerances and the largest propensity to solve problems on a global scale. They also have a tendency to hold spiritual values”

#### 5.2.3.1 SUSTENANCE DRIVEN RESPONDENTS

"I tend to leave things..... if after a couple of weeks I was still ill I would go to the doctor's" (S1)

"I feel that when you visit the doctor you are just a statistic" (S1)

"I feel like I have to convince the doctor that something is the matter" (S3)

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"I would try and do things....before I resorted to going to the doctor's" (S2)

"If I'm unwell I first try and treat it myself, if it persists I do go to the doctors"

(S3)

"I don't really agree that people with more money should get better health care"

(S1)

"I would only consider private health care, if the doctor wasn't helping me or I thought that there was something really serious" (S2)

"I might be tempted to try acupuncture" (S2)

"I've had a go at acupuncture" (S3)

"I trust what they (the doctor) say I would never go against what they said to me" (S3)

"I do tend to go along with what they (the doctor) say....." (S1)

## SUMMARY

Sustenance driven consumers appear to view their doctor as an authority figure. There is an indication that they trust their doctor (on the whole), that they believe in the National Health Service, and would only venture into the world of private health care in the last resort. They are sometimes a little reluctant to go to the doctors indicating that they feel they might be 'troubling' the doctor. There is some evidence of a willingness to try alternative approaches to conventional medicine.

### 5.2.3.2 OUTER DIRECTED RESPONDENTS

"If I thought it was something more serious than a cold or flu I would go (to the doctor) without hesitation" (O1)

"I generally think I'll be alright tomorrow so I'll leave it" (O2)

"as soon as anything is wrong yes I do seek medical advice" (O3)

"If they prescribe me something I wouldn't doubt or question it, I would trust them implicitly, on the whole I do trust them" (O1)

"I think its a great service (the doctors) when you need it" (O2)

"I have been in BUPA until last year but it was just costing me too much. In an ideal world I would go back to that. If you can afford it, in a funny kind of way

you are helping the NHS. It's a bit selfish but if you can afford it I think its much better service" (O3)

"I think it is worth it (private health care), rather than waiting around for the NHS. It's worth spending money on your health" (O2)

"If I thought I could benefit from (private health care) yes (I would use it)" (O1)

"I'm not sure how much I believe in all these aromatherapy and things, I would just stick to conventional medicine" (O1)

"If traditional medical practices don't achieve what you want I think it's justifiable to use alternatives" (O2)

"If there was a possibility of alternative medicine I would probably try it. I use herbs and vitamins and things instead of antibiotics" (O3)

## SUMMARY

Outer directed respondents appear to have confidence and trust in their doctor. They show little reluctance to visit their doctor compared to Sustenance driven respondents. Striving towards gaining the best possible service, Outer directed respondents indicate that if they are not happy with the 'service' that the NHS offers they will actively seek a 'better service' in the private sector. Additionally they are not averse to using alternative medicine.

### 5.2.3.3 INNER DIRECTED RESPONDENTS

"Doctors have got a habit of prescribing things that are not always in your best interest" (I1)

"I really don't like to feel I have to go (to the doctor's)" (I1)

"The doctor where I go is very impersonal" (I1)

"I would do something like Thai chi..... Or I would try a Chinese herbalist" (I1)

"I'll use the NHS every time ... private doctors are not any better than NHS doctors. It's being paid for we should be using it" (I1)

"Some but not a lot (of confidence in doctors), I like to try and find out about things I don't like to just go along with what they say" (I1)

"I don't have any sort of fears about going (to the doctors)" (I2)

"I think the closer to nature it is the better and if it doesn't work then I am not frightened to try something more conventional" (I2)

"Politically I am not happy about private health care at all" (I3)

"I am increasingly having an alternative approach to health care, I haven't used the NHS for ten - fifteen years, I go to a homeopath and various others" (I3)

"I like the holistic nature of alternative medicine" (I3)

"I do not trust the NHS for things which are not purely physical" (I3)

"In general I have very low confidence (in doctors)" (I2)

"I have thought that if the NHS would just move its attitude just a bit and start realising that the patient is part of the cure and actually give you some say in what happens" (I3)

## SUMMARY

The Inner directed responses indicate some scepticism of conventional doctors. They suggest that they are against private health care from a political and ethical stand point.

Of the three Social Value Groups, the Inner directed respondents indicated that they perceived that their health was something that they had a high degree of control over. They choose to adopt a more holistic approach, actively trying preventative and alternative medicines.

### 5.2.4 ORGANISATIONAL STRUCTURES (WORKING ENVIRONMENT)

MacNulty (1985: 333) suggests that Sustenance driven consumers tend to be worried, "pedantic", "rule-following" and generally against change. Outer directed consumers are described as being "traditional", "pro authority" and supporting order. Motivated by "acquisition", "status", "competition" and "getting ahead" MacNulty (1985: 333) suggests that they are concerned about "appearance" and position. He suggests that Inner directed consumers MacNulty (1985: 334) reject established procedures and are a powerful force for "individual autonomy" and the use of new organisational structures

and relationships. Importantly however they are further described as altruistic, unselfishly concerned about the welfare of other.

### 5.2.4.1 SUSTENANCE DRIVEN RESPONDENTS

- “I think it’s important that you work in a happy atmosphere” (S2)
- “It’s important that you all get along” (S3)
- “I think you need to feel secure” (S2)
- “ ..... that the company cares about their employees, you need to feel that what you do is important and valued” (S2)
- “If there wasn’t any rules..... that’s when problems occur” (S1)
- “It (structure) is definitely important” (S2)
- “Yes that (structure) is important” (S3)
- “There needs to be procedures in place” (S2)
- “I am motivated by responsibility, getting recognition and money” (S2)
- “Also working in a happy atmosphere where you get along with your colleges” (S3)
- “Motivated by – “a nice atmosphere, things running smoothly, know what you are doing” (S3)
- “It’s definitely important. I mean to have problems at work and not know that there are people in place to go and see, it must be really frustrating and demoralising. I don’t think you get the best out of people when they don’t know where to go or what to do about things” (S2)
- “I like to know what I’m doing and where I stand” (S3)

### SUMMARY

The responses suggest that Sustenance driven consumers respond positively to structure, rules and procedures. The responses also suggest that Sustenance driven consumers enjoy and feel most happy when they are working in a harmonious environment where there is little conflict or change.

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#### 5.2.4.2 OUTER DIRECTED RESPONDENTS

"I like to be the best in what I do. (O1)

"Some sort of structure. I like to be given some direction and know where I am going" (O1)

"I like an environment where there is lots of confidence and trust and you can go and get on with your job happily" (O1)

"There has got to be some structure, but it can slow things down. Rules are there for a reason but they are also there to be broken" (O2)

"I like an organisation to be structured so you know where you are" (O3)

"I like to work with different people, so I suppose an organisation where you get lots of contact with lots of people" (O3)

"I much rather do things myself" (O1)

"I don't like dictatorial management. I like to be given the responsibility to do things my way" (O1)

"I like the freedom to do things my way" (O3)

"I like to voice my opinions" (O3)

"I think in a strict ridged hierarchy it makes you very competitive, you might not do the job to your best because you spend so much time competing with the others to show the best results" (O1)

"good resources are vital" (O3)

"respect, challenge, commitment of those around me, status. I want to have a higher position a more senior position and yes a cracking salary. I prefer success and the recognition and achievement than the money, but at the end of the day I want to own a BMW" (O1)

"Ideally I look for rewards, pension schemes; bonuses, and things like that. I think they are very important" (O1)

"If I had the option I would like to work for myself or in a partnership with a few people, just so I get a better reward for the work I am putting in, more than if I am working for someone else" (O2)

"financial rewards are priority" (O2)

"People cannot be given too much information and I think everybody should be informed about decisions that have been made that affect them" (O1)

"I like respect" (O1)

"I like a challenge" (O1)

## SUMMARY

If we examine these quotes it would be fair to suggest that the Outer directed consumer might believe the 'right' organisational structure is the one that facilitates their personal progression and development. Motivated by self gain with material rewards as an essential expression of success. Structure and rules are viewed as important but only to the point that they support them and support their progress. Resources to facilitate their personal progress are crucial.

### 5.2.4.3 INNER DIRECTED RESPONDENTS

"The attitude of the people I am working with is very important" (I1)

"If you have a free thinking organisation you can get more done than if you are stuck within strict guidelines" (I1)

"I work best in a small team" (I2)

"Know how your work links in (to the organisation as a whole)" (I2)

"Take pride in what you are doing" (I2)

"Encouraged to stretch yourself" (I2)

"Flexible" (I1)

"You have to have guidelines but there has to be flexibility" (I2)

"Nice atmosphere - open rooms" (I1)

"You always need some sort of procedure but you can't have things engraved in stone because there's always a point where things are going to change and you have to be able to adapt" (I1)

"A learning organisation" (I3)

"Work together, where you and your contribution is valued" (I3)

"People orientated - its only when you value your people that change can happen and you can move on and up" (I3)

"Communication is the key element, once that breaks down you can forget it"  
(I2)

- “Where mistakes are allowed to happen because people are always learning” (I3)
- “A learning organisation, one that will grow one that will value the input of everybody” (I3)
- “They (managers) are there to steer and guide us to what their strategies and aims are” (I2)
- “Making a difference and being valued for doing so” (I3)
- “Having some level of power and being able to use that to empower others” (I3)
- “Money doesn’t motivate me, it is important but it’s a short term motivator other things are long term” (I3)
- “Being stretched intellectually” (I3)
- “If I think I can help someone that gives me a buzz” (I2)

**SUMMARY**

Inner directed consumers describe a complex environment. Fundamentally this environment is described as one that facilitates effective communication, learning and is open and flexible to change.

Fundamentally Sustenance driven consumers strive to feel secure. Outer directed consumers strive to be seen as successful and Inner directed consumers strive to develop and self actualise.

**5.2.5 WHAT MIGHT IMPROVE THEIR LIFESTYLE**

This question was added to the end of the interview essentially for two reasons firstly purely as a matter of interest and exploration and secondly to the end of the interview on a light note.

**5.2.5.1 SUSTENANCE DRIVEN RESPONDENT**

- “More financial security” (S3)
- “Better holidays, perhaps even a better car, more things for the house” (S1)

"My husband not spending as long at work as he does" (S3)

"If the opportunity came up to move and we would still be financially stable I might like to, but, I would be worried that we might not have the happiness that we have got now" (S3)

"I've got happiness here so why risk changing things and things going wrong."  
(S3)

"As long as the bills are paid and I have that piece of mind I am happy" (S1)

#### **5.2.5.2 OUTER DIRECTED RESPONDENTS**

(Time constraints for respondents O2 and O3 meant that only O1 completed this part of the interview)

"More money. I am very restricted in what I do in my leisure, there are things I want to do but just don't have the money to do them" (O1)

"I would like to own my own house" (O1)

#### **5.2.5.3 INNER DIRECTED RESPONDENTS**

"I quite like my lifestyle" (I2)

"To spend more time doing some things that I really want to do" (I2)

"Doing less" (I3)

"Less stress, less volume in relation to food" (I3)

"Stopping smoking" (I3)

"Being valued as well, self esteem is an issue" (I3)

"Having more time that would make me feel much better" (I3)

#### **5.2.6 WHAT MAKES THEM FEEL GOOD ABOUT THEMSELVES**

As with the previous question (5.2.5) this question was added to the end of the interview for two reasons firstly purely as a matter of interest and exploration and secondly to end the interview on a light note

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### 5.2.6.1 SUSTENANCE DRIVEN RESPONDENTS

"To enjoy my work and get along with the people around me" (S1)

"This course that I have just done. It's definitely been morale boosting" (S1)

"To lose weight" (S3)

### 5.2.6.2 OUTER DIRECTED RESPONDENTS

(as with the previous section, time constraints for respondents O2 and O3 meant that only O1 completed this part of the interview)

"I like to make people laugh" (O1)

"Achieving things and getting over things" (O1)

### 5.2.6.3 INNER DIRECTED RESPONDENTS

"I like to see myself grow" (I3)

"I like to watch people learn that is what makes me feel good really good" (I3)

"Helping someone else grow" (I2)

"Helping others" (I2)

"When you have things in common and you have good communication with people" (I1)

## SUMMARY

Responses to 5.2.5 and 5.2.6 supported the values expressed in response to other elements of Interview One.

## SUMMARY

Interview One was successful in validating Part Two of the questionnaire, i.e. the Interviews provided the researcher with the confidence that Part Two of the questionnaire was a valid tool by which consumers could be categorised accurately with

regard to Taylor Nelson's Social Value Groups. The sample of consumers exhibited many of the values and attitudes of Taylor Nelson's Social Value Groups as detailed by MacNulty (1985).

The Interviews did however provide much more than confirmation of the validity of Part Two of the Questionnaire. The Interviews provided a means to gain an in-depth understanding of the motivations of these consumers and an indication to how their attitudes and values might influence food risk perceptions and risk relieving strategies.

### **5.3 INTERVIEW RESPONSES TO FOOD RISK PERCEPTION QUESTIONNAIRE**

The following section aims to analyse the risk perceptions responses from Interviews two and three.

The following section headings correspond to the Factors derived during the quantitative analysis. This allows the reader to easily refer back to the quantitative analysis.

As with the previous section, each of the Social Value Groups responses to each of the risk categories will be presented and summarised.

The analysis focuses on the interviews of fourteen respondents obtained from the main survey (Interview three) as well as a small number of food risk perception interviews undertaken during the pilot (Interview two). In all cases the individuals fell into the homogeneous group previously discussed in chapter four.

### 5.3.1 TECHNOLOGY AS A PERCEIVED RISK

#### 5.3.1.1 SUSTENANCE DRIVEN RESPONDENTS

"I don't really know anything about it (genetically engineered food) but it doesn't sound too good" (S2)

"It is not certain what sort of long term effects they (artificial preservatives colours) might have on people" (S13)

"It just seems you are not told enough about them (technological things) or you are told conflicting things ....., I don't trust the research" (S10)

"It (genetically engineered food) probably would worry me more if I thought about it a lot" (S11)

"Where is it (genetic engineering) going to develop, presumably there have got to be strict controls and are they going to be in place and enforced or will the controls be ignored anyway?" (S15)

"Looking at things from a consumer's point of view I think if it (technology) makes food cheaper.....at the end of the day if they are making vegetables grow bigger or what ever getting a better product" (S14)

"I look for 'E' numbers" (S11)

"I think colouring unnecessary and to an extent flavourings are as well" (S14)

#### SUMMARY

Sustenance driven respondents demonstrated a lack of knowledge. Interestingly they confessed that their worry was largely fuelled by a lack of knowledge and rumours that there was a risk to be perceived. Their position could be interpreted as fear of the unknown. They were also concerned that rules / controls were being broken.

This group suggest that they are willing to bear the risk of technology if it facilitates a financial saving.

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### 5.3.1.2 OUTER DIRECTED RESPONDENTS

"No I don't see it (genetically engineered food) as particularly high risk there are other things that are much higher risk"(O1)

"I guess its largely because I know that things are monitored and done under controlled conditions." (O1)

"I also think that genes, well they're natural to start off with" (O1)

"Pesticides and fertilisers I assume that they have been tested much more than the genetically engineered, I would think they would be safer" (O11)

"Well the more I have heard about genetic engineering, sometimes it worries me that we might be getting into something that we can't get out of" (O11)

"With genetically engineered food I know so very little about the background and the science of it so I find that a bit disconcerting" (O13)

"I suppose it is a lack of knowledge that (worries me) not knowing where there artificial flavours and colours come from not knowing what they can do to you" (O13)

### SUMMARY

For the Outer directed respondents there is a stronger sense of trust and belief in the controlling bodies. They accept technology (as part of life) to a larger extent than the Sustenance driven respondents. However there is still some concern over lack of knowledge.

### 5.3.1.3 INNER DIRECTED RESPONDENTS

"My concern in this is because I feel that it is totally outside my control, most of our control, that it sometimes difficult to trust the information that is put out by the media" (I12)

"If you like, it is that I have no control over the production or the preparation of the food before I consume it" (I11)

"I don't think there is enough information about it (genetic engineering) really there's not enough labelling so that would concern me" (I10)

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"Genetic engineering, junk food, BSE, pesticides and fertilisers I feel the same about all these things" (I2)

"It seems that you can't trust producers to inform you as a consumer and I think that explains my worry in terms of genetic engineering and indeed BSE and pesticides" (I11)

"You don't know really whether to believe the research, that they come out with" (I11)

"It is to do with trust, but I am very cynical" (I11)

"It (genetically engineered food) doesn't worry me but I don't like it. It doesn't worry me in terms of the food risk it's maybe from an ethical point of view" (I3)

"As long as it is being controlled properly it (genetic engineering) doesn't worry me" (I13)

"All these healthy eating products but for all we know a lot of their products may be full of chemicals, there is a total hypocrisy" (I11)

"Chemically would worry me more than genetically" (I3)

"I wouldn't buy something that had a lot of e numbers" (I10)

"We don't know prefer natural to artificial" (I3)

"It's artificial to me" (I2)

## SUMMARY

These quotes demonstrate the high degree of concern Inner directed consumers exhibited and the complexity of their thinking.

Importantly a perceived lack of control fuelled concerns for Inner directed respondents. Inner directed respondents are also concerned about the availability and reliability of information, they often allude to concerns that information cannot be trusted. They seem to prefer the 'natural' to the 'artificial' and link 'ethics' to matters of technology.

Fundamentally low levels of trust appear to be leading to scepticism and cynicism.

## 5.3.2 HIGH COST AS A RISK

### 5.3.2.1 SUSTENANCE DRIVEN RESPONDENTS

"Good quality doesn't mean it is the most expensive thing" (S10)

"I wouldn't shop there (M&S) for things I could get cheaper elsewhere" (S2)

"I don't shop at the likes of M & S" (S11)

"At the end of the day you are not getting a better quality product you are just paying to improve marketing people's salaries, you throw it in the bin at the end of the day anyway and that just seems stupid to me" (S14)

"I certainly just don't buy pre packed vegetables.....they're more expensive I guess" (S15)

"I tend not to buy fresh fruit or vegetables from the supermarket, it tends to be far more expensive than you would buy in a local greengrocer or the market" (S12)

"I buy them from my local greengrocer, I buy them (potatoes) by the bag I think they come straight from the farm or wherever and they are unwashed. I am very conscious of cost, I budget working out an allowance it's one of my main priorities I have so much money each week to spend and I have to keep within those limits so I tend to go for good value" (S12)

"I wouldn't go to Marks and Spencer for food, I am not sold into that idea at all. You do have your routine of where you go. I am really not bothered about packaging and that is basically what it is for me. There is a certain snobbery about supermarket shopping, J Sainsbury and all that, at the end of the day I just want to get it all done as quick as possible as cheaply as possible" (S14)

"Well I don't, (shop at "expensive supermarkets) a classic example would be somewhere like M & S I never would dream of buying any fresh produce from there because I just don't think it is good value" (S12)

"I know that they put the same product into different packaging .... there are slight differences but for me that slight variation I won't pay for" (S14)

"I would think it (pre-prepared vegetables) too expensive" (S13)

## SUMMARY

Sustenance driven consumers point strongly to their belief, that high cost did not act as assurance of a 'better' product. In the interest of looking for 'good value', high cost was indicated as a very real worry. They appear to perceive that they would be paying for the intangible image of the product rather than its tangible characteristics. There was a common belief that their money would go further by purchasing food in 'cheaper' stores and/or purchasing 'cheaper' brands (which were perceived by the Sustenance respondents as 'of equal quality'.)

### 5.3.2.2 OUTER DIRECTED RESPONDENTS

"You are assured quality and that's value for money" (shopping at Marks and Spencer's) (O10)

"You know what you are getting and it will be as good as you can buy" (O10)

"I do shop there for some things especially if I fancy something nice, there are some things in there that do taste much nicer, it comes down to the quality factor but I wouldn't do my weekly shopping there" (O11)

"I don't think price puts me off because I think if you go to a more expensive supermarket they are more convenient and you get a better quality and choice" (O13)

"As long as I can get what I want, that it's convenient and that I am happy with the quality that's fine" (O12)

"Something to do with the level of quality and the content and the layout of the supermarket..... the aisles are bigger, wider it seems easier to do your shopping perhaps its because you are pampered more as a customer and everything is laid out better..." (O13)

## SUMMARY

A very strong assumption that price and quality are positively correlated and that high quality (and consequently high cost) minimises risk.

Outer directed respondents were casual when discussing this section. It was common sense to them that 'you get what you pay for'. They appear happy to pay more and appeared almost proud of the fact that they pay more and as a result perceive that get 'the best'. They perceived that this was an effective way of re assuring themselves that they would be purchasing the 'right' product for them.

### 5.3.2.3 INNER DIRECTED RESPONDENTS

"The price to me is not an indicator of the content at all, not at all" (I2)

"I would rather pay more for something that is more natural" (I12)

## SUMMARY

Unlike the Sustenance driven and Outer directed respondent who appear clear about price effecting their risk perceptions, the Inner directed consumers indicated quite assertively that on the whole they did not believe the cost of the product necessarily to be a good indicator of quality. The cost of the product did not appear to be a means by which they measure, judge and ultimately make a purchase decision. Responses did indicate however that they were not willing to pay for intangibles that they would only pay more for benefits that they valued i.e. natural food.

## 5.3.3 NUTRITION AS A RISK

### 5.3.3.1 SUSTENANCE DRIVEN RESPONDENTS

"I probably eat too many sweet things but I always try to eat plenty of fresh food fruit and veg" (S2)

"I tend to watch what I eat in the high fat (range) I use low calorie spreads skimmed milk" (S12)

"I have always used salt in cooking but I try to discourage it at the table" (S12)

"..salt I find it is a worry from the health problems that it can cause in later life" (S12)

"I have to be careful....I have high blood pressure .... cholesterol I am very aware" (S11)

"The latest thing at the moment is for the supermarkets to jump on this low fat band wagon and saying 'low fat' and then bumping up the price" (S14)

### 5.3.3.2 OUTER DIRECTED RESPONDENTS

"I do eat what I want but I have to exercise to keep it off, but I don't like to eat a lot of fat" (O11)

"I would look at the fat content if the more expensive one had more fat in it I would buy the cheaper one" (O11)

"I like to look after myself so nutrition (is important)" (O11)

"I have become aware of how important it is to eat the right things in the right quantities" (O12)

### 5.3.3.3 INNER DIRECTED RESPONDENTS

"I believe you are what you eat to a great extent " (I2)

"I am concerned about my diet as a whole" (I2)

"I eat to much" (I3)

"I do feel healthier when I eat less fat" (I13)

## SUMMARY

Nutrition was a worry shared by all interviewees. The interviews did not highlight any clear differentiation between the Social Value Groups risk perceptions regarding nutrition. A high fat diet was raised most frequently as a perceived risk. This risk perception was shared by all three Social Value Groups. Salt was also mentioned on several occasions by Sustenance driven respondents. There was a suggestion that Sustenance respondents felt that healthy foods were more expensive.

If one group were to be pulled out as expressing the most concerned albeit marginally it would be the Outer directed consumers. They also raised the issue of exercise more than any other Social Value Group.

### **5.3.4 MISLEADING INFORMATION**

Misleading information was pulled in with nutrition in the factor analysis probably because of a link in consumers' minds to nutritional labelling.

On reflection using the words 'misleading information' in the questionnaire leads the respondent. It is therefore not surprising the respondents perceived this as a risk and expressed their concern

#### **5.3.4.1 SUSTENANCE DRIVEN RESPONDENTS**

“I think it is new products that are sometimes misleading” (S12)

“Things like these energy drinks that have been in the news recently not telling the truth about how much sugar is actually in them” (S12)

“I suppose I don't always read the nutritional information on the back, but I do look at it. It does worry me though to think that there is something I should know about that isn't given or that things are misleading” (S2)

“Yes the healthy option isn't always the healthy option” (S14)

#### **5.3.4.2 OUTER DIRECTED RESPONDENTS**

“Sometimes you see packaging and they are very clever they give you this description of a food ... and say high fibre or something and its not until you get home that you realise that sugar is the biggest ingredient” (O13)

### 5.3.4.3 INNER DIRECTED RESPONDENTS

"I think it is a good idea that information be policed so that you know that the information you get is accurate" (I12)

"they try and make out that they (oven chips) are healthy" (I2)

"you can read the label but there is often not enough information there to make an informed choice" (I2)

"Some (supermarkets) use manipulative techniques when marketing food....."  
(I11)

"....you need information to make / be able to take responsibility for things" (I3)

"No I think things are misleading things like cereals being low in fat but they don't mention that it is high in sugar" (I10)

## SUMMARY

All interviewees stressed how important reliable and accurate information was. They suggested that the more information the better. The responses indicated that the Inner directed consumer perceived information to be fundamental to decision making.

### 5.3.5 CHEAP / POOR IMAGE AS A RISK

#### 5.3.5.1 SUSTENANCE DRIVEN RESPONDENTS

"I look for bargains but at the same time I wouldn't buy really cheap food because a lot of the time you get what you pay for. I have bought cheap food and regretted it" (S2)

"I don't like to spend over the odds for things, I like a bargain but I wouldn't buy rubbish because it was cheap" (S10)

"I live in Rotherham and I think that they (Asda/Aldi) are the best value for money supermarkets in my area. Asda do a lot of buy one get one free, and things like that" (S11)

"Yes it really doesn't bother me (shopping at Aldi, Netto, Kwiksave)" (S14)

"If something is cheap it doesn't mean it is not good quality" (S10)

"I tend to look for the best value for money, I get the bulk of my shopping at Asda and Aldi but if I wanted to buy something a little bit special I would perhaps go to somewhere more expensive and for that its good and I am not worried about that" (S11)

"I like good value but you get what you pay for at the end of the day" (S13)

"You can't beat Aldi for tinned stuff to be honest it's cheapest" (S11)

"The only thing I wouldn't buy is cheap meat" (S11)

"Yes I do use them (own label products) I am happy that if you go to a good supermarket their products will be good but you aren't paying for the name" (S12)

"I like Aldi for some things you can't buy everything from there but I think they are quite good" (S15)

"The financial saving and that it (Aldi) is as good as anywhere else for the products that I buy there" (S15)

## SUMMARY

Very financially orientated. Consciously looking for 'value for money', 'the best buy'

### 5.3.5.2 OUTER DIRECTED RESPONDENTS

"...the image of the product might make me buy or not buy it" (O1)

"Reputation is more important the image." (O1)

"Well, I wouldn't shop at Lo – cost or somewhere like that because I know they don't have a very good reputation, I can't imagine that they are very strict on hygiene or quality" (O1)

"I wouldn't go there (to Netto, Kwiksave) so I guess I don't like their image" (O13)

"If you go into Kwiksave or cheaper supermarkets there are less things on offer and it is less attractively packaged, so it doesn't spark your imagination and it's just not enjoyable if you go to Tesco and Safeway they give you menu suggestions things look nicer and you get inspiration" (O13)

“(shopping at Aldi or Netto)...the quality isn’t as good although I wouldn’t rule it out if I was in that economic range of buying. If I didn’t earn very much money then I would shop there I think, but I can afford to shop at a more reasonable level so I don’t need to go there” (O11)

“They are good if you haven’t got much money aren’t they” (O11)

“I don’t feel bothered or worried about using a cheaper supermarket brand I still feel that they are of quality” (O11)

“We use Morrisons, Asda, Sainsbury that sort of supermarket rather than your lower range supermarket” (O11)

## SUMMARY

Image and reputation are both worries for the Outer directed consumer. All respondents were overtly worried that both the food product (inclusive of brand) and the place of purchase have both the right ‘image’ and a good reputation. Outer directed respondents are concerned about cheap whether brand of product or supermarket (they appear very brand conscious).

### 5.3.5.3 INNER DIRECTED RESPONDENTS

“Heavily packaged food and generally messed about with food is generally cheaper.....the nutritional quality is probably lower.....”(I11)

"Cheap means those things to me (additives / highly processed food) (I12)

“I don’t worry about what it looks like, status doesn’t come into it at all” (I13)

“If it was full of additives yes a cheap product would worry me” (I10)

"I usually do yes (buy own label products)" (I10)

"no I tend to stick to Aldi and Sainsbury's every week" (I10)

## SUMMARY

Whilst Inner directed respondents perceive 'high cost' as no more or less of a risk to 'low cost', the word ‘cheap’ appears to generate a belief that the product in question will be

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nutritionally poor. This is interesting as in contrast to the Sustenance driven consumer whom appear to associate the word cheap with a financial saving.

### **5.3.6 ECOLOGICAL / ETHICAL RISKS**

#### **5.3.6.1 SUSTENANCE DRIVEN RESPONDENTS**

“I don’t mind the idea of recycling but it is the thought that someone is making a lot of money out of it and they are not doing it for the environment they are doing it to line their own pockets” (S14)

“I think when you see the stuff littered in the street that doesn’t disintegrate it’s not only an eye sore but it goes into the land fills” (S12)

“Yes we buy these things that you top up with the bag again and again”

“I am generally concerned I like to try and use bottle banks. I am not an activist or anything like that but in general terms I do care” (S10)

“It concerns me that it (recycled packaging) is often more expensive and I can be put off by that” (S12)

“I do try and recycle because my sister lives in an area where they actually collect so I take them to her but I don’t go to a supermarket and think I will buy that because of the packaging” (S15)

“No I don’t look for recyclable packaging” (S11)

“I’m not very good, I do try, I have good intentions, I am sure I could do much more (recycling)” (S13)

“They are things (controversial operations) that I don’t really take much notice of I don’t know about them I guess” (S11)

“The way the labour market is controlled they don’t get very good pay compared to the price it sells at and that worries me because they just aren’t benefiting by it” (S12)

“They do concern me a bit (pesticides and fertilisers)” (S12)

“Yes I think they are worrying (pesticides and fertilisers) I don’t think they are safe because I think a lot of people abuse the rules” (S14)

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"I don't eat beef I am concerned about BSE but what about the pesticides they use on vegetables that you have got to eat?" (S15)

## **SUMMARY**

Sustenance driven consumers responses do demonstrate a moral concern in this area. Sustenance driven consumers did, however, indicate that they found it very difficult to discuss this set of risks in any depth. They relate to them by referring back to previously discussed areas of concern notably to financial concerns, their fear of the unknown and their fear about rules being broken. Whilst they do indicate verbally that they have concerns, ecology and ethical issues don't appear a high priority.

### **5.3.6.2 OUTER DIRECTED RESPONDENTS**

"I think it is trees and wood and paper the actual disposal of it which is bad for the environment, apparently, so I try to do my part" (O11)

"We have a recycling bank near to where I live and I tend to go on a fortnightly basis and take bottles" (O12)

"I used to live in Cardiff and they have a really good recycling system ....I don't know of anything like that in Sheffield" (O13)

"I suppose I'm unethical, it's (controversial operations) just something I don't really think about" (O1)

"most of the pesticides and fertilisers I assume that they have been tested much more... I would think they would be safer" (O11)

"I don't know lots (about pesticides and fertilisers) but I know enough to be wary" (O13)

## **SUMMARY**

Outer directed respondents display significantly less concern compared to Sustenance driven and Inner directed consumers. These issues just don't really appear to be on the Outer directed consumers' agenda.

### 5.3.6.3 INNER DIRECTED RESPONDENTS

"There is far too much of it (food packaging)"(I11)

"All food packaging concerns me, People need to eat. I don't see the need to wrap it up and make it more attractive" (I11)

"(Packaging) is something I am always aware of and again I worry about. So I buy things that have packing which can be recycled." (I3)

"I do try to be eco friendly however the provision is awful I don't have a car, driving would pollute anyway so I don't know if I would really be helping or just contributing but I collect and collect" (I13)

"Yes it (pesticides and fertilisers) is an environmental concern I don't like the idea of it getting into the food chain which is a big problem I don't like waste either" (I3)

"Because of the lack of control (in respect to pesticides and hormones) it's often hard to know what exactly you can do to make a difference" (I3)

"(Recyclable packaging) I don't think it is as important as things like not using your car, I think it's crazy, like using your car to take bottles to a bottle bank, if you think about the amount of energy that is actually saved I don't think as an environmental issue on the scale of things that you make a difference" (I10)

"All three of these things (included pesticides) have very far reaching consequences for the environment and the quality of our future for pollution and the long term health of the species" (I12)

"Yes it does (worry me). I try to avoid them (companies that operate controversially) if I am aware and it is a big issue" (I10)

"It's not the country so much or even the politics, maybe it should be but for me it's the way they treat, conduct themselves. I haven't got a problem with eating meat I'm not a vegetarian I just feel strongly that we should not abuse animals for an ultimate pleasure" (I13)

"I do buy Cafe direct I do have these things (controversial) at the back of my mind" (I12)

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“It worries me a great deal how supermarkets operate and food manufacturers. Some use manipulative techniques when marketing food its crazy that people get away with it” (I2)

## **SUMMARY**

Inner directed respondents expressed concern about whether packaging is recyclable or not. There also appear to be concerned regarding over-packaging of goods. One respondent was concerned that they often felt they simply just couldn't avoid over packaging. Strong concern was expressed about pollution and the environmental dangers of by-products in the food chain. The long term effects of fertilisers and pesticides were a concern.

All Inners indicated that they were worried about origins of food products and/or the ethics of organisations. Likewise that they would be against organisations operating controversially. Inners expressed knowledge giving examples of organisations and / or countries that they believed to be unethical. (*derogatory references to organisations / company have not been used in this thesis*)

Inner directed respondents appear much more 'environmentally' aware. They appear to view issues more holistically e.g. it is not of any environmental benefit to take your empty bottles to a bottle bank if you have to drive to get them there.

### **5.3.7 UNFAMILIAR AS A RISK**

#### **5.3.7.1 SUSTENANCE DRIVEN RESPONDENTS**

"Yes I buy similar things all the time" (S12)

"I tend to stick to what I know, I just buy things that I know we like" (S11)

"I buy very similar things I am very stuck in my ways though I did try a broccoli quiche quite recently that was quite daring but that is a rarity" (S15)

"Yes but I tend to shop at the same places" (S12)

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"No we tend to use the same places" (S13)

"If somewhere new opened I would try it but I would put the same things in my trolley" (S15)

"No that isn't a problem for me, I'll try somewhere new" (S14)

## **SUMMARY**

The Sustenance driven respondents were on the whole creatures of habit and reassured by familiarity.

### **5.3.7.2 OUTER DIRECTED RESPONDENTS**

"Well yes (happy to try a new store), but that's not to say that I would" (O1)

"I do tend to buy the same things but if something new came out or I had heard that a different variety of product was good I would buy it. It's not a case of looking for something but if I see something I would try it" (O11)

"I am not totally set in my ways" (O12)

## **SUMMARY**

Though the Outer directed respondents appear to often stick with the same product / brand/ supermarket they suggested that they were very interested in anything 'new' perhaps that they are influenced by fashion and trends.

### **5.3.7.3 INNER DIRECTED RESPONDENTS**

".... it's fun as much as anything" (trying new things) (I3)

"I do all the time" (try new and different things) (I13)

"No I will try anywhere (new)" (I10)

"No I try them (new supermarket / ingredients) if I don't like them I won't have them again" (I11)

"I would quite happily buy a different product" (I12)

## SUMMARY

Very little fear was evident with regard to the unfamiliar. Trying different shops, foods and brands was typical behaviour for the Inner directed respondents.

### 5.3.8 NON ORGANIC

Through the factor analysis, non-organic, was grouped with risks in the "Unfamiliar" category. The reason for this is not entirely clear cut and therefore responses to this particular risk will be discussed separately.

#### 5.3.8.1 SUSTENANCE DRIVEN RESPONDENTS

"I think all fruit and veg should be organic but the price needs to come down"  
(S2)

"I don't buy it because of the cost" (S2)

"No it's not something I think about" (S11)

"Its not really a priority I suppose" (S13)

"If it got cheaper" (S13)

"I have a friend who buys from an organic green grocer and has it delivered I think it's good but it's too expensive" (S15)

"If I thought I could afford organic I would but to me cost is the priority" (S12)

"It (organic food) was (pause) tended to be expensive and some of it looks wilted because nobody else bought it" (S13)

## SUMMARY

For the Sustenance driven respondents the organic issue comes back to the matter of cost and financial worry. Sustenance driven respondents perceive organic produce to be too expensive. This appears to override any ethical desire to purchase 'organic'.

With an increasing number of retailers expanding their organic range at lower prices perhaps Sustenance driven consumers may be more willing to purchase organic produce

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in the future. Naturally larger ranges and wider availability will make it more familiar also.

### **5.3.8.2 OUTER DIRECTED RESPONDENTS**

“I would do, but I don’t (buy organic produce). If I sat back and had the time to think about it, but I think just because it is the way of life you go to the supermarket and you buy what's there” (O12)

“No it’s not something that bothers me (organic), if there was a difference in the taste and it was better I might do more than I do now, but at the moment what I eat doesn’t seem to have damaged me so why change it” (O11)

“It is easier to buy it (non-organic food) straight from the supermarket” (O13)

### **SUMMARY**

Outer directed consumers do not appear to include organic produce in their priorities. They seem to suggest that organic foods are not readily available and as a result don’t satisfy their need for ease and convenience.

Outer directed consumers may however, as a result of increased positive publicity about buying ‘organic’ ‘warm’ to the idea of being seen to be purchasing products associated with the “latest trend”.

### **5.3.8.3 INNER DIRECTED RESPONDENTS**

“People like myself who tend to go for the organic route tend to have a more ethical approach to things anyway” (I3)

“I go into Tesco’s usually at reduced price time admittedly to whip up all the organic stuff but it worries me because we have a huge inequality in the availability of good quality food” (I11)

“(Organic) I try to find them reduced or on offer. I guess the logic is that if they were produced on a bigger scale the prices would come down and made widely available. I would pay a bit extra, I accept that it is more labour intensive you

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need more land and you need to rest the land and other things and because of that I would be happy to pay say up to 20% more for that I think seems reasonable”

(I11)

"we have started to grow a lot of our own (organic food). I heard on Radio 4 about how supermarkets are thinking about going into this in a big way that would be great" (I12)

“I guess it (organic production) should be the way but our food system and the demand for cheap food (mean) it's not possible" (I13)

## **SUMMARY**

Whilst Inner directed respondents appear to be actively seeking to purchase organic produce they do stress concerns about over pricing. Several Inner directed respondents claimed that they purchased organic produce when it was on offer/reduced or grew their own.

Inner directed consumers are likely to welcome an increase in the availability and reduction in the prices of organic produce, however characteristically they may well deplore (ironically) the high amount of advertising, marketing and packaging that supermarkets may undertake to market their organic food ranges.

## **5.4 INTERVIEW RESPONSES TO FOOD RISK RELIEVING STRATEGIES QUESTIONNAIRE**

The following section aims to analyse the risk relieving strategy responses from Interview Three. Interview Three was designed to explore, clarify and verify the responses to Part Three and Four of the Survey Questionnaire. This part of the qualitative analysis chapter focuses on Risk Relieving Strategies (part four only). The interview responses are from the fourteen respondents obtained from the main survey sample.

As with the previous section the following section is structured so that the reader can refer back to the quantitative analysis with ease. The section headings follow the factor analysis labels previously detailed in Chapter Four.

## **5.4.1 SOCIETAL ACCEPTANCE / ENDORSEMENT**

### **5.4.1.1 SUSTENANCE DRIVEN RESPONDENTS**

“Its like anywhere if you go to a restaurant you go because someone has recommended it” (S12)

“If you have a recommendation about something you would try it anyway” (S12)

“I tend to trust my family’s judgement on things, yes I guess I would take their views on board” (S12)

“She (my mother) was really fussy about food so anything she said I would think it must be alright then” (S13)

“People that I am friendly with, and my family are, I suppose similar to me and I value them and trust them, particularly my sister who is a Home Economics teacher” (S15)

“I would trust my family’s opinions much more than I would an experts because I think, what exactly is an expert?” (S15)

“(Family) might encourage me to try something” (S13)

“Yes a family member or a friend if they said they had tried it and it was good” (S14)

“I had seen them advertised I thought I will try them” (S12)

## **SUMMARY**

Sustenance driven respondents appear willing to quite readily trust others. Responses suggest that they do feel less worried when a product is endorsed by others close to them. Evidence supports the view that the family is a great influence and comfort to the Sustenance driven respondents.

### 5.4.1.2 OUTER DIRECTED RESPONDENTS

“Yes, I would have thought that if they had tried and tested it and said it’s alright, it’s word of mouth again, if somebody tries it and passes it on, their opinion whether it is good or bad.....” (O11)

“A person similar to myself, it’s just if they are similar to me so I think that they have got the same taste as me like the same sorts of things” (O11)

“I think I trust other people’s opinions, I do trust friends' opinions” (O12)

“It depends on whether I thought they had any knowledge (friends)” (O13)

“I guess I am (influenced by advertising)” (O12)

“We never go somewhere “dodgy” we look in the local papers and magazines” (O10)

“Usually through reputation, what people have told us” (O13)

“(Advertising) well it does effect us whether we like it or not” (O13)

“Well you think I have seen it, the product name or the jingle or whatever is in your head and you think I will try it” (O13)

“I tend to go for more expensive brands because you tend to get brain washed in a way by advertising” (O12)

### SUMMARY

As with the Sustenance directed respondents societal endorsement appears to be an effective risk relieving mechanisms for the Outer directed respondents however, the focus appears to be more external to the individual and away from the family. They appear ready to turn to people similar to themselves and admit to being influenced and interested in information communicated via advertising.

### 5.4.1.3 INNER DIRECTED RESPONDENTS

“This is certainly not the case, some people that I know eat the most horrendous things and really badly. I make up my own mind” (I11)

“If it is someone (a peer) who I trusted and thought that they were quite knowledgeable” (I10)

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## **SUMMARY**

Evidence suggests that societal acceptance / endorsement is largely an ineffective strategy for relieving risk for the Inner directed respondents. Inner directed responses were generally very negative with regard to this area. The only positive response was in respect of a trusted and knowledgeable peer.

### **5.4.2 LOW COST**

#### **5.4.2.1 SUSTENANCE DRIVEN RESPONDENTS**

“Yes if it was cheaper, it would” (S14)

“I would be happy if they were cheaper... I'd rather save the money” (S10)

“If it was discounted I might look at it” (S13)

“I tend to look for the best value for money” (S11)

## **SUMMARY**

The previous section highlighted how low cost was not perceived as a risk for the Sustenance driven respondents. In line with this Sustenance driven respondents appear to perceive a reduction in cost as an effective strategy for relieving risk.

#### **5.4.2.2 OUTER DIRECTED RESPONDENTS**

Outer directed respondents responded negatively to the proposal that low cost would relieve risk perception. This is not surprising since this group previously indicated that they perceive low cost as a risk.

### 5.4.2.3 INNER DIRECTED RESPONDENTS

“Low economy brands tend to be full of additives and god knows what else”  
(I11)

### SUMMARY

As highlighted in the previous section Inner directed respondents indicate that cost, whether it be low or high is not as a reason to perceive risk per se. Similarly Inner directed respondents do not see ‘low cost’ as a effective risk relieving strategy. The only response here was that low cost was associated with foods which are nutritionally poor.

### 5.4.3 BRANDING (PRODUCT ORIENTATION)

#### 5.4.3.1 SUSTENANCE DRIVEN RESPONDENTS

“If I have used something before and been happy with it I tend to buy it again and again and go on buying it. It gives me consistency.....I think of Heinz as having consistency” (S10)

“You know what you are getting then (familiar brand)” (S11)

“I buy similar, the same things all the time you know the things you have tried and you like them so you buy them time and time again” (S12)

“I think it (free sample) helps in supermarkets that offer a taste of a new cheese it’s silly to buy a pound of cheese when it is so expensive these day” (S12)

“You get to trust it, you know that you like it, ..... if you are happy with it you stick to it” (S13)

“reputation I suppose it is the quality of the company trusting the company and the quality of the food.....” (S13)

“I do try sometimes to not be so boring but it’s me” (S15)

“I would look for a brand name that I knew, and where it was sold that’s a big one” (S13)

“I do like to know what is in things” (S10)

“I look at the portion the content size, additives as well” (S10)

“Something like genetically engineered food it doesn’t matter who’s selling it even if it was M & S I still wouldn’t feel happy to buy it” (S13)

“Maybe a brand that I was familiar with but I am not really bought into brands that much” (S14)

“I would want to know what is in it before I would try it” (S11)

“It’s a quality thing and familiarity as well” (S13)

## SUMMARY

Branding (product confidence), particularly familiar branding appears to be a fundamentally effective relieving strategy for the Sustenance driven respondents. Naturally they are inextricably linked, brands often being reassuring because they are familiar.

Interestingly however despite branding being a potential risk relieving strategy it does not appear to be powerful enough to override technological risk perception. Free samples were seen as a good way of reducing financial risks for this group.

### 5.4.3.2 OUTER DIRECTED RESPONDENTS

“You just know what (brands with a good reputation) you are getting” (O10)

“I think it is about the good reputation again you assume that they are doing a lot of research into the product before they put it on to the market and because of the name you are expecting good quality” (O11)

“You need to be able to read the label and know what you are getting” (O13)

“It wasn’t the usual brand we didn’t trust it so we threw it away without even opening it” (O13)

“As long as it (the label) has the essential information like what it is who the manufacturer is and what is in it I am happy” (O13)

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## **SUMMARY**

Brand reputation / image is fundamental strategy for Outer directed consumers and repeatedly mentioned as a key component in their food choices. They also read labels to reassure themselves about product quality.

### **5.4.3.3 INNER DIRECTED RESPONDENTS**

“You can make your own mind up if you have all the information that’s important” (I10)

“We assume that labelling is giving information and you can then make an informed choice” (I11)

“I don’t like to buy something unless I know what is in it, then you are equipped to know if you should be worried or not, it lets me make a decision” (I13)

## **SUMMARY**

Labelling appears to be fundamentally important for Inner directed consumers. They feel empowered by information and believe it to be their right to be informed. Information facilitates decision making. They appear to be autonomous when it comes to decision making.

### **5.4.4 HIGH COST/EXPENSIVE AND IMAGE ASSOCIATION**

#### **5.4.4.1 SUSTENANCE DRIVEN RESPONDENTS**

High cost was perceived as a risk for the Sustenance driven consumers and therefore was not perceived in anyway as a risk relieving strategy.

#### **5.4.4.2 OUTER DIRECTED RESPONDENTS**

“I do tend to go for more expensive brands because you tend to get brain washed by advertising” (O12)

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“The price relates to the quality” (O11)

“I do think you do get a better product” (O12)

“I don’t think I would buy meat from the cheaper supermarkets” (O12)

“They often taste better (more expensive products)” (O12)

“I would go for the best quality one I think” (O11)

“Its just that there is more choice and the way it is packaged in a more expensive supermarket, I just prefer it” (O13)

“You get what you pay for” (O10)

## **Summary**

Outer directed respondents clearly link price with quality. They appear to feel reassured by a high price as such it is perceived as an effective risk relieving strategy.

### **5.4.4.3 INNER DIRECTED RESPONDENTS**

There is no evidence to suggest that Inner directed respondents perceived 'high cost' as an effective risk relieving strategy. They only presented disbelief that it might even be suggested to be an effective risk relieving strategy.

## **5.4.5 AUTHORITARIAN REASSURANCE**

### **5.4.5.1 SUSTENANCE DRIVEN RESPONDENTS**

“All these scares over the years with eggs and beef and things you are told you should and shouldn’t eat I don’t think the government should be involved in that. I think there should be an independent unit, not politically motivated and then it should be allowed to go into places where food is produced and have a lot more say in what is happening and it should be regarded as the authority of that. A government should do that for the good of the country but it seems to me that they have no idea what is actually happening compared to the people who are working day in day out, so I think there should be an independent unit...” (S12)

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“I don’t know really, I think maybe the government has it’s own agenda” (S10)

“Experts as well they might be experts in certain fields but if they came together that would make me worry less if I thought there was a team of experts” (S12)

“something..... on the side of the consumer that are not afraid to speak out”  
(S13)

“What sort of expert is a government body. I’m not impressed at all. The last government tried to tell us that beef was safe. Probably now beef is safer than it has been for years. It’s the beef burger that I had in 1979 that I worry about, that has probably done it for me” (S15)

“I don’t entirely trust the government recommendations, they seem to fudge the issue most of the time they seem to be on the side of the industry” (S13)

“Yes but it would depend who the independent tester was” (S14)

## **SUMMARY**

Responses suggest that the Sustenance driven respondents were fearful, additionally there is a suggestion that they don’t totally trust the government, (that the government is out of touch). They suggest that they believe that the government was not really on the consumer’s side.

### **5.4.5.2 OUTER DIRECTED RESPONDENTS**

“It makes sense that independent approval should be trusted over government. After the BSE the government can’t be trusted”(O10)

“I think so, yes” (feel relieved by Government) (O12)

“I guess I would trust the Government or an expert more they are going to have more information” (O13)

“Sometimes experts say things just to take the worry off people when really they know what the truth is so you don’t know what their motive was” (O11)

“I don’t think I would (trust experts) as much now actually, with everything that has been coming out in the last years” (O12)

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“These sorts of independent survey are more to do with quality taste and price than food safety. I would probably think that the Government might have more know how, (if it’s a safety issue)” (O13)

## **SUMMARY**

Outer directed respondents responses suggested that they were inclined to be reassured by the Government / experts but were a little hesitant to admit this. They suggested that their reluctance was due to issues such as the BSE crisis which had led to a decrease in their levels of trust in recent years.

### **5.4.5.3 INNER DIRECTED RESPONDENTS**

“These people (experts) know. They are better equipped than anyone to make decisions” (I13)

“Yes, I think they (independent body) are more inclined to listen to the experts and tell people the way it is” (I13)

“It would have to be an independent research body it is difficult” (I10)

“I don’t think so (trust the government) particularly in light of the BSE, no” (I10)

“I would feel much more inclined to believe them if they were independent” (I10)

“It would have to be an independent research body” (I10)

“They are not independent (government). They have been in the pocket of the farmers for ages” (I11)

“I trust them (independent body) slightly more than the Government, I suppose I assume that everybody is in the pocket of somebody” (I11)

“No not at all (relieved by Government body). They tend to ignore and select information. They say what ever gets them the vote” (I13)

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## SUMMARY

Inner directed respondents are particularly aware of the 'potential ends' to which expert knowledge can be turned. They therefore distrust government bodies and are more likely to be reassured by an independent body.

## 5.5 QUALITATIVE ANALYSIS SUMMARY

The results of the qualitative analysis indicate clearly that within the themes discussed, whether they be those relating to food risk perception or those relating to risk relieving strategies, there are distinct differences between the views concerns and approaches of Sustenance driven, Outer directed and Inner directed respondents. These are supportive of the findings of the quantitative analysis in chapter four. The findings of both chapter four and five will be discussed in chapter six.

## DISCUSSION

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The discussion chapter will consider the overall findings of the research in the context of the literature discussed in Chapter Two. The Chapter is in four parts, the first presents a discussion of the research methodology highlighting its strengths and acknowledging its limitations. The second part discusses the key findings of the research focusing on both quantitative and qualitative methodologies. The third part discusses theoretical and philosophical issues which arise as a result of an examination of the findings in the context of the original literature reviewed. The final part of this chapter makes recommendations to the food industry in light of the research findings.

### 6.1 DISCUSSION OF THE RESEARCH METHODOLOGY

#### 6.1.1 USING QUANTITATIVE AND QUALITATIVE METHODS

For both the pilot and the main study strong parallels are evident between the results of the questionnaire survey and the results of the qualitative interviews, illustrating the value of using both quantitative and qualitative approaches.

The results of the qualitative research illustrate clearly how it would have been possible for inaccurate assumptions to have been made had quantitative methods been used alone. Fundamentally the qualitative interviews complemented the quantitative responses by highlighting consumer motivations. This was critical. Whilst a risk may be of equal concern to the members of two different Social Value Groups, the motivation for those perceptions may be fundamentally different. For example, the research clearly shows that both Inner directed and Sustenance driven consumers perceive risk in relation to the use of pesticides and fertilisers. However, whilst the degree of worry is comparable for

the two groups, the motivation for these is very different, a reflection of their dissimilar worldviews.

The qualitative responses illustrated that whilst the Sustenance driven consumers seem to fear the 'unknown', the Inner directed consumers feared the long term global effects that pesticides and fertilisers may have on the environment. Importantly the Inner directed consumers demonstrated that they were not concerned about the 'unknown', indeed they make it their business to know and are also highly innovative consumers. This example illustrates how the qualitative interviews are crucial to the valid interpretation of quantitative findings.

The qualitative research was also very important in validating the use of the Social Value Group Screening Instrument as an appropriate tool for categorising respondents into Sustenance driven, Outer directed and Inner directed (SVG) groups

## **6.1.2 METHODOLOGICAL LIMITATIONS**

### **6.1.2.1 A CONVENIENCE SAMPLE**

It was decided for reasons discussed in Chapter Three, that the sample for the main study would be women aged 25 - 45, with no dependent children, economically active and in an household with an income greater than £12,000 p.a. Furthermore the sample of women used in the main study was drawn from staff at Sheffield Hallam University. This being the case the results of the study cannot be generalised to a wider population. The results do, however, indicate that for the group investigated there is a clear relationship between social values and perceptions of food risk and preferred risk relieving strategies. It could be argued that, in hindsight, the approach to the selection of a sample for the main study was perhaps over cautious. Indeed the outcomes of the pilot study which was conducted on a mixed group of respondents perhaps add some weight to this view.

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### **6.1.2.2 LINGUISTIC AMBIGUITY**

There is some indication that the questionnaire presented a small number of linguistic limitations. The words 'cheap', 'image' and 'non – organic' appear to be ambiguous having a range of interpretations, these dependent on the Social Value Group to which the respondent was allocated. Qualitative Interviews gave the opportunity to clarify and increase understanding in these areas.

### **6.1.2.3 SELECTION OF PARAMETRIC TESTS FOR QUANTITATIVE ANALYSIS**

Parametric tests were selected when analysing the quantitative responses to the survey questionnaire. Greene and D'Oliveira (1995) highlight that this is often justifiable in research where psychological variables are being investigated using Likert scales. The assumption being made that the intervals in such scales are equal. Davis (1999), Goldsmith et al (1997) and others in the field provide examples of social value research which successfully adopt Likert scales and subsequently use parametric tests for analysis of the data generated.

Whilst a preliminary screening of the data obtained in this research also led to confidence in using parametric tests, it is possible to debate whether the criteria for using them were met fully. In particular it was felt that for the purposes of the one way analysis of variance undertaken it was appropriate to use equal numbers of respondents in each Social Value Group to guard against any problems associated with the requirement for homogeneity of variance between conditions not being fully met. In addition where possible, the results of equivalent non – parametric tests were examined in an attempt to highlight any question over the use of parametric ones. All results were comparable and consequently the results of parametric analysis are presented as they enabled the use of values rather than ranks, the latter being less enlightening.

#### **6.1.2.4 SOCIAL VALUE GROUP MEMBERSHIP**

The scoring system used to allocate respondents to Social Value Groups might be regarded as crude by the 'purist'. Aware of the weaknesses in terms of scientific credibility, members of each group were selected with extreme caution. Only those exhibiting dominant values of one of the Social Value Group were selected to be a member of that group.

Earle and Cvetkovich (1994) cited in Cvetkovich and Lofstedt (1999) use a comparable screening device for the allocation of respondents into cultural-value groups in their research. Respondents were similarly given a score for each value set, Earle and Cvetkovich (1994) then (unlike this piece of research) categorised all respondents into one of the cultural-value groups. Taking a rather more cautious approach this research took the view that Social Value Group membership is neither exclusive nor certain, with many respondents demonstrating a combination of values drawn from more than one Social Value Group. With an aim of obtaining clear cut results it was decided to select respondents demonstrating only one set of dominate values for those elements of this study that focused on differences in perceptions between the members of the three Social Value Groups. It would however be interesting to investigate whether this strategy was again perhaps over cautious.

#### **6.1.3 MARKET / CONSUMER SEGMENTATION**

As discussed in the literature review much of the food risk research undertaken in the UK tends to present gross generalisations of the risk perception of 'The British Public'. Research by the Food Standards Agency (2000) and by the Department of Health (1998) are unfortunately examples of such research, of which there are many.

Whilst it is valuable to explore general issues within a society, it is misguided to assume that actions based on the results of such research can be effective and efficient in the context of a whole population. For policy makers in particular this simplification of what

are complex and fundamental differences within the British population is an attractive and preferable approach due to its strategic manageability.

At the other extreme, in marketing research in particular, there is sometimes a tendency for research to generate segmentation categories that have little value beyond the narrow focus of the application being considered.

The Literature Review discussed which variables are 'best' for consumer segmentation. Traditional variables for segmentation such as demographic, socio-economic and geographic were examined and found to be wanting in many respects. Value segmentation was presented as a favourable alternative. The findings of this and other research strongly supports the usefulness of using social values to explore consumer perceptions. The results not only suggest that social values influence consumer perceptions but also that analysis of these social values over time can help to identify trends which in turn predict the future demands of consumers. For those whose aim it is to manage risk perceptions such data can be a tool for improving the effectiveness of risk perception management.

#### **6.1.3.1 SOCIAL VALUE GROUP SEGMENTATION**

The literature review draws particular attention to Taylor Nelson's Social Value Groups as reported by MacNulty (1985).

Nelson (1986: 198) describes the three Social Value Groups broadly and simplistically in the following way;

“.....inner directed, more concerned about the individual and creative aspects, the status-conscious outer – directed ones, and those whose primary concern is to keep their head above water the sustenance directed”.

The results of this research clearly confirms the relevance of these groups for segmentation in Britain today and indicate that members of each group have a dissimilar portfolio of risk relieving strategies and risk perceptions in relation to food.

## **6.2 SUMMARY OF SOCIAL VALUE GROUPS**

### **GENERAL WORLD VIEWS**

The following observations were made with regard to members of each of the Social Value Group's personal characteristics. This was as a result of both qualitative and quantitative responses.

#### **6.2.1 SUSTENANCE DRIVEN CONSUMERS**

Respondents categorised as Sustenance driven demonstrated the least confidence of the three groups, often seeming unsure and fearful. They often found questions difficult to answer, looking for prompts from the interviewer. Their responses indicate that they have limited knowledge particularly in the area of technology and ethics / ecology. Despite these issues they were the most willing to participate in the research, accommodating and generous with their time.

#### **6.2.2 OUTER DIRECTED CONSUMERS**

Respondents categorised as Outer directed demonstrated confidence. Rather chameleon like, and sometimes self-contradictory there is some evidence to indicate that this group of consumers wanted to be perceived favourably in the interview situation and that their responses may be somewhat biased on this account. In an attempt to avoid this, serious attempts were made to present an environment and atmosphere which would allow the interviewee to feel relaxed and, as such, free to give honest responses.

#### **6.2.3 INNER DIRECTED CONSUMERS**

Respondents categorised as Inner directed, demonstrated that whilst they see themselves as playing a relatively small part in the context of 'the whole', they believe that they have a contribution to make to 'the system'. Fundamentally they believe in both accountability and responsibility. They have a deeply embedded respect of 'the system'. They demonstrated a breadth and depth of knowledge in many areas. They appeared sincere

and were assertive, articulate and enthusiastic. Exhibiting complex value systems, there were times when they appeared frustrated particularly during Interview Three when risk relieving / avoiding strategies were discussed. Both holistic and analytical they often questioned themselves and others. The Inner directed presented the largest group of the main study sample, probably a higher proportion than would be found in the general population.

## **6.3 SOCIAL VALUES, AND THEIR CORRELATION WITH RISK RELIEVING STRATEGIES AND RISK PERCEPTIONS**

Fundamentally the results (detailed in Chapters Four and Five) illustrate the relationships between social values, risk perception and risk relieving strategies. The results support the view that a risk is perceived when values / lifestyles are threatened and that consumers select both risk and risk relieving strategies largely to support their 'worldview' as discussed below for each of the Social Value Groups in turn.

### **6.3.1 SUSTENANCE DRIVEN CONSUMERS**

Sustenance driven consumers clearly demonstrate a strong family orientation. Seeing work as a financial necessity as it provides security for the family. Disliking the unfamiliar, they appear on the whole to have a 'traditional' value system. The past both shapes and guides their future. This research suggests that the Sustenance driven consumer is most comfortable and most happy in a 'safe', harmonious environment that is secure and where 'things' rarely change. They appear to believe that traditional institutions and authority have a duty to care and protect.

This value system manifested itself clearly in both qualitative and quantitative responses. Sustenance driven consumers perceive risk when they are confronted with something unfamiliar and when the status quo is threatened. Appearing to have limited knowledge in the area of technology and ecology, the findings demonstrated that they appear to

adopt one of two strategies, they are either dismissive or fearful. They are ready to assume that they will be protected by an institution external to themselves. They feel relieved of their worry, on a somewhat superficial level, if a member of their family isn't worried, this demonstrating the high level of trust they have within the family unit. The results also suggest that Sustenance driven consumers fear financial risk. Financial risk was avoided by 'careful' selection of store and products. Equally, as one might expect a low price or a reduction in price was an effective risk relieving strategy for this group. Financial risk was repeatedly referred back to even when the discussion was in a very different area thus demonstrating the Sustenance driven consumers orientation to these concerns. Financial risk perception appears to be so strong that it overrides all other risks and risk relieving strategies. Security would appear to be the core value that these respondents seek to protect.

### **6.3.2 OUTER DIRECTED CONSUMERS**

Outer directed consumers value themselves according to how they believe others value and see them. They want to be the best and therefore aspire to have the best. Motivated by financial and social status, the results suggest that they are most concerned about image and reputation. Whilst acknowledging risks they appear to distance themselves from these and as a result express relatively few perceived risks. Interestingly they appear ready to accept many of the risk relieving strategies investigated particularly branding, high price, image and reputation, and perhaps as a result of this, of the three Social Value Groups they seem to have the lowest level of perceived risk across the range investigated the exceptions being risks associated with 'cheap / image and 'nutrition'.

This group has the highest confidence in the government of the three investigated

### **6.3.3 INNER DIRECTED CONSUMERS**

Inner directed consumers appear strong and independent. Perhaps the most complex group to analyse they are predicted by MacNulty (1985), as a consumer group to grow

in size. The results of the research points to a group of consumers who are deeply philosophical, analytical, reflexive and global/holistic in their approach. They appear to believe that their actions regardless of how small or seemingly insignificant will effect 'the whole'; as a result they adopt a moral and holistic philosophy in all aspects of their life. They appear to look to the future rather than the past when making decisions. The results identified that they share a number of risk perceptions with the Sustenance driven group, however the interviews indicate that the motivation for them is fundamentally different from that of Sustenance driven consumers. Whilst Sustenance driven consumers expect society's institutions to 'dutifully' protect them from risk, the Inner directed consumers reject this as an effective method of risk relief.

Inner directed responses indicate that they demand information to enable them to make informed decisions. Results suggest that Inner directed consumers do not automatically trust society's traditional institutions. Their cynicism and scepticism is repeatedly demonstrated and frequently focuses around the issue of the ways in which such institutions misrepresent information. They seek out knowledge preferably from independent sources to empower themselves, thus reducing the need to trust external / secondary sources with vested interests.

Perceiving many risks, particularly technology and ethical / ecology related risks, Inner directed consumers reject almost all of the risk relieving strategies investigated in the research. The only effective risk relieving strategy for this group appears to be information either factual or obtained from independent sources.

#### **6.3.4 SUMMARY**

Inners demonstrate the greatest degree and widest range of food related perceived risks with the Outer Directed consumers demonstrating the lowest levels and the smallest range of perceived risk. Interestingly for these groups, levels and range of risks perceived negatively correlate with the number of and degree to which risk relieving strategies are perceived as effective. We might interpret this another way. Inner directed consumers have few effective risk avoiding strategies in place (and those which

are effective require knowledge to be gained). As a consequence risk is perceived frequently and readily. In sharp contrast Outer directed respondents demonstrated a wide spectrum of risk relieving / avoiding strategies and as a consequence perceived much fewer risks. Sustenance driven consumers fall some way between these two extremes.

As the research developed the issue of consumers' management of their own risk perceptions was a major issue. Sustenance and Outer directed consumers seemed to be able to avoid perceiving risks by seeking reassurance from sources external to themselves. Inner directed consumers appear on the other hand to look to themselves i.e. they make up their own mind. Inner directed consumers it would appear are therefore motivated to acquire more knowledge than the other two groups with the possible outcome that they are much more aware of social and world-wide issues and are more confident in themselves.

#### **6.4 CONSUMER STRATEGIES FOR LIMITING EXPOSURE TO PERCEIVED RISK (RISK AVOIDING STRATEGIES)**

The view that risk relieving strategies instrumentally reduce levels of perceived risk is implicit in much of the literature. A rare example of an alternative approach is presented by Yeung (2001) who suggests that consumers attempt to limit their exposure to risk implying that the approach taken is preventative rather than reactive. Yeung's orientation is welcomed as it supports the findings of this piece of research.

This orientation is crucial both in terms of one's philosophical approach to understanding consumers risk perceptions and in terms of one's strategic approach to the management and intervention of them. The findings of this research raise a fundamental doubt in what appears to be, by and large, the accepted understanding that consumers firstly perceive risks and only then attempt to relieve or reduce them afterwards. This approach may be a result of much research focusing on either perceived risk or risk relief with a general

lack of recognition of the inseparability of the two areas. Likewise researchers aiming to manage perceived risks often look for quick remedies for management applications rather than carefully considering the processes involved.

The findings of this research strongly suggest that consumers have strategies which aid their decision making processes. These mechanisms may be subconscious but fundamentally they support and reinforce the consumer's social values, world view and lifestyle. Whilst capable of development and change these social values are embedded. The results of the research indicate that these mechanisms are used as a frame of reference and fundamentally determine whether a risk is ever perceived at all. Findings suggest that if a risk is perceived it is because the consumer has failed to adopt / find a strategy which will enable them to avoid the risk concerned.

The variable 'throwing food away' is an example of how an adopted strategy avoids risk perception in the first place. Quantitative results indicated that this was not a risk perceived to any great degree by any members of any of the social values groups. This was interesting as it had been hypothesised that both Inner directed and Sustenance directed consumers would feel concerned about throwing food away albeit for very different reasons. The quantitative results were explored during the qualitative interviews. Interestingly members of both groups indicated that whilst throwing food away was theoretically a risk for them, they had adopted a strategy to avoid ever having to do so and therefore no risk was perceived. Similarly respondents who indicated that they did not perceive BSE as a risk also indicated that they had taken action to avoid the risk (i.e. changed their purchasing behaviour).

This orientation questions the value of risk perception research which purely examines risk perception. This type of research may never offer more than observations. Risk perceptions are the consequence. As researchers we need to find the cause. To truly begin to understand the consumer's risk perception we have need to develop a knowledge and understanding of the strategies consumers adopt to avoid risk perception only then can we be proactive and manage the avoidance of risk perception.

## **6.5 RISK PERCEPTION AND RISK AVOIDING**

### **STRATEGY PORTFOLIOS**

The results illustrate that consumers have a portfolio of perceived risks. The degrees of concern vary according to the risks perceived. These differing degrees of concern may reflect the extent to which the risk threatens the consumer's social values and the extent to which the value(s) threatened are fundamental to their lifestyle. It is thus possible to place the risks in a hierarchy, those at the top of the hierarchy are those which are the biggest threat to the consumer's most dominant values. These risks appear to overpower those lower down and are of the greatest concern. The chance to worry about risks lower down in the hierarchy is perhaps to neglect those higher. This is an explanation as to why Sustenance driven respondents always appeared to refer back to financial risk and the unfamiliar (their threatened core values) even when talking about technology or ecological / ethical issues. Inner directed consumers in contrast worry about ecological and ethical issues. That is not to say that Inner directed consumers do not worry about financial risk since they do not threaten their core values.

Perceptions of risks and risk avoiding strategies are deeply rooted in consumer social values, they are guided by the consumer's world view and are fundamental to how they manage the plurality of choices that they make on a daily basis.

## **6.6 TRUST AND RESPONSIBILITY**

The research findings highlight the fundamental importance and intrinsic nature of both trust and responsibility for consumers' perceptions of risk and therefore risk avoiding strategies.

Trust is paramount to modern living. The dynamic and complex nature of today's society means that making choices is a necessity. Making a choice involves the assessment of what is a 'risk' and what / who can be trusted. Consumers are increasingly aware and

skilled at managing potential risk, those management strategies frequently require them to place trust in others.

Giddens (1991) interestingly describes trust by placing it at the opposite end of a spectrum to risk. Qualitative responses illustrated that trust presents itself as integral to consumers' risk assessment and decision making, level of trust appears to influence which risks are perceived and what constitutes an effective strategy for reducing / relieving or avoiding risk. Importantly the findings suggest that consumers with different social values trust different sources.

Cvetkovich and Lofstedt (1999: 5) suggest that because trusting involves a subordination of position through the relinquishing of control, trust also involves risk

“One may trust someone because of a strong expectation that the trusted one will act in a certain way. But one can never be entirely certain that one's trust will not be violated.

Trust then trades a primary physical risk for a social risk”

Who or what a consumer relinquishes control to, appears to be a reflection of their values. They need to feel a degree of empathy or commonality of values with ‘the party’ in order to justify trusting them and feel confident in their choice. If there is a conflict in values, trust will be at best strained. An alternative strategy is to retain control.

The concept of trust is complex. How consumers deal with the notion of trust is particularly interesting. The findings of this research suggest that Inner directed consumers are reluctant to make trade offs of the sort indicated by Cvetkovich and Lofstedt (1999) whereas Outer and Sustenance driven consumers in contrast appear much happier to do so.

Slovic (1993) recognised that "Trust is fragile. It is typically created rather slowly, but it can be destroyed in an instance". Building trust is extremely challenging yet fundamentally the aim of many strategies adopted by organisations within the food industry. Advertising, branding and labelling are just three areas where building trust is an objective, critical to long term success in fiercely competitive markets.

The British food industry has undoubtedly suffered a break down of trust despite the sophisticated strategies adopted by food managers. Consumer confidence and levels of trust in food systems are well documented and recognised as seriously low. Consumers trust in food and food systems has broken down most transparently in the last ten years. Whilst respondents indicated differing levels of trust for different sources, the research findings support a common lack of trust in Government agencies across all of the Social Value Groups (though Outer directed respondents demonstrated more confidence than the other Social Value Group members). The Food Standards Agency (2000) was launched in part to address consumers' low levels of trust by taking a strategic view of food safety and standards across the whole of the food chain importantly presenting itself as an independent agency. The research findings demonstrated that information from independent agencies was believed as an effective risk relieving strategy for consumers in all three Social Value Groups.

The Food Standards Agency proclaiming a strong consensus against over - regulation, stress that consumers must take their fair share of responsibility for food risks. Food Link News (March 2000) suggest that

"one of the FSA's tasks will be to empower the consumer towards informed decision-making. In order to reinvigorate consumer trust, the FSA will be striving to present as open a forum as possible by developing web sites and consumer help lines. There will also be an emphasis on two-way communication: consumer panels and public meetings will be encouraged and open lines of contact established with the media"

The research findings raise questions as to whether it is possible to regain trust that has been previously destroyed. The time required to rebuild trust, (if possible **to rebuild**

trust at all) would be substantial. Also consumers collectively have changed and continue to change so significantly that it appears highly likely that they would adopt alternative strategies rather than revert back to trusting those that have previously proven to be untrustworthy.

The Food Standards Agency do to some degree appear to recognise a more demanding and sophisticated consumer. The FSA's strategy being most appropriate for consumers who are adopting a more democratic approach to the assessment of risk. As consumers' values change and levels of empowerment increase so too does the demand for new means by which to gain the information which allows consumers to make informed choices. Communications technologies are a major facilitator of this process, which can however also be something of a two edged sword.

Inner directed consumers have values which are in conflict with the traditional institutions that consumers have in the past been persuaded to trust. This lack of compatibility has led the Inner directed consumer to adopt alternative strategies. When they cannot find a party to whom they feel comfortable relinquishing control, Inner directed consumers respond by keeping control, seeking information themselves and making the judgements and choices based on that information. Comprehensive labelling aids these processes as does the increasing ease of accessing information. Exit strategies may also be adopted such as purchasing organic food in response to perceived risk i.e demanding alternatives which do not threaten their social values. Food retailers are clearly responding to the demand for such exit strategies. It is perhaps more likely that increasing numbers of consumers will adopt these strategies than it is that trust in traditional sources will be regained.

Importantly however the results of this research indicate that whilst the Inner directed consumers are likely to feel encouraged by these new approaches, it is questionable whether Sustenance driven and Outer directed consumers will be encouraged by the prospect of having to acquire knowledge, take responsibility and empower themselves towards informed decision-making. Research findings identify that the Sustenance driven consumer may particularly lack the confidence required to adopt this strategy.

Whilst the Food Standards Agency appears to address the fact that food consumers levels of trust are at an all time low, there is little understanding of the fact that different strategies are needed for different consumer groups.

The findings of the research illustrate that Sustenance driven and Outer directed consumers have a willingness to trust (albeit different sources) and that they also want others to take responsibility. By trusting others to take responsibility they transform the risks concerned to social risks. They appear to be comfortable with this notion of 'guardianship', perhaps because it is familiar to them. In contrast Inner directed consumers appear to have much less willingness to trust institutions / bodies. Indeed they are sceptical of these. Importantly these observations tie risk perception into notions of responsibility, with Inner directed consumers taking responsibility and Sustenance driven and Outer directed being happy for others to be ultimately responsible.

Whilst this research did not investigate the issues of responsibility, qualitative responses highlighted that this is a key factor. The results of this research indicated that Inner directed consumers have a deeply rooted sense of responsibility, importantly this stretches far beyond themselves to a global level. They believe they are affected by global decisions not just those close to home, similarly they believe that their actions have global repercussions. This holistic view and wide sense of responsibility of the world is not shared by the Sustenance driven and Outer directed consumers.

Knowledge and understanding of consumer's perspectives on responsibility may prove vital, not only to marketers, but to all who aim to understand consumers food risk perceptions. Essentially one needs to design and develop strategies which will accommodate the scope of a target markets values and attitudes to include the values and attitudes of all whom that target market feel responsible.

## 6.6.1 SOCIAL VALUE GROUPS - WHO DO THEY 'TRUST' ?

Qualitative responses demonstrated that risk perceptions and risk avoiding strategies are a direct indication of whom or what the consumer felt they could trust.

### 6.6.1.1 SUSTENANCE DRIVEN AND OUTER DIRECTED CONSUMERS

Sustenance driven consumers and Outer directed consumers both demonstrate a comfortable acceptance of traditionally approved systems / institutions / bodies. They demonstrate an acceptance of authority figures, society's institutions and those in positions of power. Importantly in addition Sustenance driven consumers demonstrate a deeply embedded reliance on and trust in their family. Outer directed consumers had a similar orientation and additionally appear to feel reassured by high prices and reputation. The results of the Locus of Control questionnaire conducted as part of the pilot demonstrating Sustenance driven and Outer directed consumer groups as externally directed.

### 6.6.1.2 INNER DIRECTED CONSUMERS

Inner directed consumers demonstrate a deeply rooted scepticism. It is important to recognise their beliefs as an illustration of healthy scepticism as opposed to distrust. Healthy because their scepticism drives them to acquire knowledge, take responsibility and be proactive.

The results demonstrate that Inner directed consumers strive to be informed and as so develop a knowledge and understanding of many issues. This knowledge and understanding facilitates informed decision making. Problems appear to arise when information is unattainable or there is some doubt as to the validity and reliability of the information. Inners believe that this is often the case. Interestingly Giddens (1991) suggested that in 'high modernity' the prime condition of requirements for trust is *not lack of power but lack of full information*, Inner directed responses support this.

## 6.7 RECOMMENDATIONS TO THE FOOD INDUSTRY IN LIGHT OF THE RESEARCH FINDINGS

The food industry, long recognised as dynamic and turbulent, is clearly presented with many challenges by the contemporary consumer. Whilst organisations embrace opportunities they also have to be fiercely competitive. Consumers in the food industry are bombarded with a plurality of choice and are consequently forced to make selections. A knowledge and understanding of consumer perceptions and behaviour is fundamental if one is to be successful.

Marketers in the Food Industry have long recognised the need for consumer segmentation, yet their reliance on demographic and socio economic segmentation is still common. The findings of this research clearly support recommendations for the use of segmentation by consumer social values. An understanding of consumer social values presents a base from which managers can develop strategies which take into account the complex and sophisticated nature of target markets in the food industry. This level of understanding, which is neither abstract nor static, allows for marketing environmental analyses which are effectively proactive.

It is crucial that marketers recognise the impact of social values on consumer decision making. The successful use of the screening instrument (part two of the questionnaire) demonstrated how, with relative ease, organisations can identify the social values of a group of consumers. Once an organisation is knowledgeable of the values held by a group of consumers, they can make assumptions with regard to food risk perceptions and risk avoiding strategies (this would need clarification and confirmation). Such knowledge and understanding can be used to design and develop products and marketing strategies which support and reinforce the values of their target market/s. Such a respect for consumer values is likely to be rewarded with loyalty, the key to long term success.

It is imperative that the food industry fully appreciates the significant challenges presented by all consumer groups, however one cannot avoid suggesting that an ignorance of the Inner directed group may prove to be most dangerous. Many

organisations will continue to target Sustenance driven and Outer directed groups of consumers. These present challenges in their own right, least of all in that they are predicted to remain static or decrease in numbers, thus presenting organisations with increasingly fierce, competitive and often saturated markets.

In contrast to the Sustenance driven and Outer directed groups, the numbers of Inner directed consumers are likely to increase. This trend is consistent with the social changes described by Giddens and Beck in conditions of high modernity. Organisations which target consumers with Inner directed social values will be presented with a complex group. The Inner directed consumers offer great opportunities for long term success, particularly in the areas of product innovation and the development of holistic, ethical practices throughout the whole of an organisation's management systems and operations.

The findings of this research and supporting work does, however, raise questions and highlight differences in the perceptions of this group. Many well grounded theories need to be addressed if we are to confidently understand and predict the consumer decision making processes of consumers with Inner directed values.

Traditional assumptions about consumer perceptions are in serious question, one example is the common belief that consumers make a strong positive link between price and quality. Fundamentally Inner directed consumers appear to largely disassociate the two variables. Outer directed consumers maintain a strong belief in this relationship, price is a very important indicator of quality to these consumers. Sustenance driven consumers indicate some scepticism, the food industry fuels their increasing belief that they are able to purchase products that are value for money (a strong motivator) by all too often bombarding them with cheaper alternatives too tempting to not try. Inner directed consumers, however, appear to reject any positive relationship between price and quality, this is significant to marketers particularly. Inner directed consumers adopt a very different means by which to measure quality, assessing functionality, processing, organoleptic qualities (perhaps the reason for an increasing need for consumers to taste before purchase), in addition they appear to evaluate a range of other components including country of origin and composition of packaging.

Other areas which the research findings indicate are in need for review include the food industry's environmental policies. Inner directed consumers indicate that these are insufficient. Research findings indicate that Inner directed consumers are globally aware and seriously concerned and proactive about ecological issues. Interestingly attempts by some organisations to develop 'green' products whether by the use of recyclable packaging or the offering a range of organic produce can in some instances be interpreted as superficial and purely a commercial strategy. Inner directed respondents presented a cynical attitude, believing that superficial attempts to 'save the environment' such as recycling bottles at a bottle bank were pointless when many people drive to the bottle bank. Inner directed responses clearly indicating that in their view there was a need for serious action.

Research findings suggest that effective risk avoiding strategies are a clear indication of who and what consumers trust. Knowledge of a target market's social values can be used strategically in the design, development and communication of products and services with an aim to increase consumer levels of trust.

The issue of responsibility is particularly interesting, evidence suggests that the scope of a consumer's risk perceptions and risk avoiding strategies may have much to do with the issue of responsibility.

Whilst it is valuable for the food industry to be knowledgeable of the food risks perceived by consumers there is a need to focus on designing and developing products and marketing strategies that avoid risks being perceived or certainly limiting consumers' perceived exposure to risk. Whilst there is a need for further research in this area, it is essential that marketing managers, food product developers and communicators integrate risk avoiding strategies into product and marketing planning. This strategy for prevention rather than cure may prove not only more efficient in the long term but proactive in designing products on a holistic level.

## CONCLUSIONS

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This study set out to investigate and clarify how social values influence consumer perceptions of food related risks and risk relieving strategies. In doing so the research aimed to contribute significantly to what is currently a limited body of empirical knowledge. The final chapter of this thesis will now consider the findings of the research in the context of the objectives outlined in Chapter One. It will then go on to outline recommendations for further research.

### 7.1 FINDINGS OF THE RESEARCH

While the previous chapter sought to explain the findings of the research in the context of the literature, the following will examine whether the objectives of the research established in Chapter One were achieved.

The first objective of the research was to critically evaluate existing theoretical and empirical research, in the area of perception of risk in general and more specifically food risk. An extensive examination of the literature revealed a great breadth of research both theoretical and empirical in the area of risk in general, some of this proved vital to the discussion and interpretation of the findings (Chapter Six). Whilst the literature review highlights several pieces of food risk research which observe and report on general food risk perceptions for a whole population, there is limited evidence of the use of value segmentation in such research despite the increasing recognition of the usefulness of this approach in marketing. No serious attempt has been made in the context of food risk perception research to apply the findings of Taylor Nelson's longitudinal survey of the Social Values of the British population, despite the successful application of these findings in a range of other areas.

The second objective of the research was to identify members of Taylor Nelson's three Social Value Groups 'Inner Directed', 'Sustenance Driven' and Outer Directed. A

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screening instrument and consequent scoring system were designed which allowed for the successful categorisation of respondents. The instrument was confirmed as robust when used in practice on a large sample. Whilst successful in achieving the aim set, the screening instrument and scoring system could be further developed and refined to produce a less crude tool.

The third objective was to investigate consumer perceptions of food risk, for each of the three Social Value Groups. The research findings identified both the areas of perceived risk and the respondents' degree of concern. The research highlighted that a risk is perceived when individual values are threatened. The research findings reinforce the importance of understanding consumer values when aiming to understand risk perception.

Inner directed respondents perceived many food related risks. Sustainance driven respondents also highlighted a fairly wide range of perceived risks but fewer than the Inner Directed Group. Of these three groups Outer directed respondents identified the fewest.

Responses suggest that key areas of food risk perception for Inner directed consumers are 'technological', 'high cost' and 'environmental / ecological'. Sustainance driven consumers, perceive food risk in relation to 'high cost' and 'unfamiliarity'. The Outer directed consumer demonstrate a perception that 'cheap' is a risk for them. Fundamentally the risks perceived were a reflection of the respondent's social values.

The fourth objective was to investigate how food risk perceptions may be reduced or relieved for each of the three Social Value Groups. This was initially approached, as other authors have done, by assuming that consumers perceive risks and then seek to relieve them. This approach is questioned. The findings of this research suggest that when a consumer is making a decision the choice that they opt for protects and reinforces their values. Choices which threaten their values (and constitute perceived risks) are avoided. This research therefore suggests that consumers adopt and develop strategies to avoid risks ever being perceived in the first place. When strategies are not adopted risks are likely to be perceived.

Inner directed respondents revealed that they have few risk avoiding strategies, 'comprehensive labelling' and 'independent agency approval' were the only strategies that Inner directed respondents identified as effective. Sustainance driven respondents identified, 'societal acceptance / endorsement' as a strategy for avoiding risk (this included advertising, someone similar to you, family and celebrity). They also indicated that a 'familiar brand' was an effective strategy. Outer directed respondents interestingly identified an extensive range of effective strategies to include, 'social acceptance / endorsement', 'branding', 'high cost' and 'authoritarian reassurance'.

The research findings suggest that what is perceived to be an effective strategy is closely related to whom the consumer trusts, and that in turn whom a consumer trusts influences the risk avoiding strategies they select as effective. Similarly the scope of risk perceptions and the risk avoiding strategies identified as effective appear to be influenced by a consumer's feelings of responsibility for others. These integral relationships were discussed previously in Chapter Six.

The final objective of the research was to make recommendations to the food industry, in light of the research findings. These recommendations can be found in the Discussion Chapter Six.

## **7.2 IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH**

Research of this type inevitably raises many issues which go beyond the objectives of those set. Whilst areas for further research are vast the aim of this section is to make key recommendations.

One of the most fundamental findings of this research was that the literature focuses primarily on what food risks are perceived. This appears to be at the expense of any real depth of research into risk relieving / avoiding strategies. Consequently there is a need for in-depth study of how a knowledge of risk avoiding strategies can be integrated into product development and marketing management strategies focusing on risk relief as a means of proactively avoiding risk rather than as a reaction to risk.

The second area recommended for further research arises as a consequence of the complex world view of the Inner directed group of consumers, and in response to the suggestion that this groups values will dominate in the future. Firstly the research findings highlighted that this group perceived many food risks and few risk avoiding strategies. Further research into these matters would be valuable.

Research findings suggested that a consumer's feelings of responsibility may fundamentally influence the scope of their risk perceptions and risk avoiding strategies. Outer directed respondents indicate that they felt responsible primarily for themselves, Sustenance driven respondents indicate that their feelings of responsibility stretched to the family, the Inner directed group suggested that their feelings of responsibility stretched much further to a more global level and believed that their actions ultimately have holistic consequences for 'the system'. These differences appear to influence the range of risks likely to be perceived by the groups concerned, and the risk avoiding strategies adopted. Whilst this research did give indications of what appears to be a fundamental relationship this issue was not within the scope of the aims of this research and needs further exploration.

The final recommendation for further research is to conduct a larger survey with the aim of identify may significantly higher number of Sustenance driven, Outer directed and Inner directed respondents to allow for a separate factor analysis for each in order to see more clearly how the identified patterns of risk perceptions and risk avoiding strategies for each group manifest themselves. In addition it would be interesting to confirm, via further work, that the relationships identified in the study extend to other groups in the population. It would, for example be interesting to examine a more mature group of consumers in light of Britain's ageing population and the marketing opportunities this group will increasingly offer. Similarly it would be interesting to investigate men, as they are becoming increasingly responsible for food shopping, and the young with their increasing purchasing power and media investment.

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# **APPENDICES**

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- APPENDIX 1. Consumer Perceptions of Food Risk Questionnaire and Variable Codes**
- APPENDIX 2. Correlation Matrix  
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## **CONSUMER PERCEPTIONS OF FOOD RISKS QUESTIONNAIRE AND VARIABLE CODES**

### **1.1 MAIN STUDY QUESTIONNAIRE**

- Part One. Homogeneous Group Questionnaire
- Part Two. The Screening Instrument
- Part Three. Food Risk Perception Questionnaire
- Part Four. Risk Relieving Strategy Questionnaire

### **1.2 MAIN STUDY QUESTIONNAIRE VARIABLE CODES**

- Part Two. The Screening Instrument
- Part Three. Food Risk Perception Questionnaire
- Part Four. Risk Relieving Strategy Questionnaire

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## **APPENDIX 1.1**

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### **MAIN STUDY QUESTIONNAIRE**

**Part One. Homogeneous Group Questionnaire**

**Part Two. The Screening Instrument**

**Part Three. Food Risk Perception Questionnaire**

**Part Four. Risk Relieving Strategy Questionnaire**



Sheffield Hallam University

## Questionnaire : Consumer Perceptions of Food Risks

Please enter your :

*Name :*

*Internal Telephone Number :*

*Job Title :*

### Part 1

Please tick in the appropriate boxes. Thank-you.

Gender

Female

Male

Age

Under 25

25 - 45

45 - 65

Over 65

Do you work full time ?-

Yes

No

Is your total household income more than £12,000 (pa) ?

Yes

No

Do you have children 11 years old or younger living at home ?

Yes

No

Do you have children 12 to 16 years old (inclusive) living at home ?

Yes

No

Would you be willing to participate further in this research at a later date ?

Yes

No

# Part 2

(SD5)

Please read the following statements carefully and respond as truthfully as possible, by ticking the appropriate box. Please respond to all the statements, only answering Neither Agree or Disagree if you either don't understand the statement, or really don't know what your view is regarding the statement. All statements that show a \* have a further explanation/definition on page 5. Thank-You.

Agree a lot      Agree      Neither Agree or Disagree      Disagree a lot

1) I am primarily motivated by a need to feel secure\*.

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2) I am primarily motivated by a need for self discovery\*.

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3) I am motivated by the desire to have the best.

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4) I am not keen to seek change.

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5) I am largely unconcerned about the opinion of me held by the world at large.

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6) I would describe myself as fairly unconventional\*.

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7) Winning is a priority for me.

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8) I tend to be set in my ways.

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9) I believe that the breakdown of tradition causes instability in society.

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10) I am strongly motivated to get ahead of others.

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Agree a lot      Agree      Neither Agree or Disagree      Disagree a lot


11) I voice my opinions even if it means disagreeing with others or being unpopular.

12) I tend to hold onto my existing lifestyle.

13) I'm motivated by a desire to improve my status\*.

14) I work most effectively where there are few rules and little structure.

15) I take pride in keeping up appearances.

16) I believe groups with alternative values and lifestyles are a positive force in society\*.

17) I tend to make sure that other people know all about my successes.

18) I invest relatively little time in making new contacts/friends.

**IMPORTANT :-**

Now you have completed this Part of the questionnaire, look back at your 18 responses and :-

1. Circle the three answers that you agree with the most.

2. Circle the three answers that you disagree with the most. Thank-You

## Further explanations and definitions

- 1) **Feel secure :**  
To feel safe, steady and reassured.
- 2) **Self discovery :**  
To understand and realize yourself.
- 6) **Unconventional :**  
Not conforming to societies<sup>N/S</sup> established and accepted rules, attitudes, values and standards. To be individualistic, non-conformist.
- 13) **Status :**  
Your social or professional position. Increased responsibility, privilege and esteem are attached to a higher level of status.
- 16) **Alternative Lifestyle :**  
A lifestyle regarded by its members as preferable to that led by contemporary society because it is less conventional, materialistic, institutionalized and often regarded as more in harmony with nature.

# Part 3

(FR3)

How much do you worry about the following food risks and food purchasing risks.

Does not  
worry me  
at all

Worries me  
a great deal

1	2	3	4	5	6	7	8	9

1) Genetically engineered foods.

2) Buying an expensive food brand.

3) Paying more for expensively and attractively packaged food.

4) BSE (sometimes described as mad cow's disease).

5) Paying more for pre prepared vegetables e.g. Pre - packed, washed raw cauliflower florets.

6) Pesticides, fertilizers, veterinary drug residues in foods.

7) Using a cheap food supermarket.

8) High salt diet.

9) Artificial food preservatives.

10) High fat diet.

11) Information on packaging that may be misleading.

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Does not  
worry me  
at all

Worries me  
a great deal

1	2	3	4	5	6	7	8	9

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12) Food packaging which is not recyclable.

13) Having to buy a different or new brand because your usual brand is out of stock.

14) Throwing away food that has past its 'best before date'.

16) Using artificial sweeteners.

17) The image of a food supermarket.

18) Artificial food coloring.

19) Buying a store's own label product (e.g. Tesco) as opposed to a manufacturers brand (e.g. Heinz).

20) Limited information on food packaging.

21) Artificial food flavorings.

22) Eating out as opposed to eating in.

23) Buying a cheap food brand.

24) Low fibre diet.

Does not  
worry me  
at all

Worries me  
a great deal

1	2	3	4	5	6	7	8	9

25) Trying a new or different supermarket to the one you usually use.

26) Using food grown or reared using non organic methods.

27) Using unfamiliar ingredients in food preparation.

28) Foods grown or/and produced by a company or country that operate controversially.

29) Using an expensive food supermarket.

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# Part 4

(RR3)

If you are worried about a food risk or a food purchasing risk, to what extent would the following help to reduce your worry.

Would not reduce  
or relieve my worry  
at all

Would  
eliminate all  
my worry

1	2	3	4	5	6	7	8	9
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1) The food has been advertised a great deal.

2) A person similar to yourself, is not worried about the food risk.

3) Try a free sample of the product on a trial basis before buying.

4) Buy the brand that I have always bought and am familiar with.

5) The food / ingredient / process has been approved by a government body.

6) An expert on the food risk is not worried about it.

7) Buy the brand (e.g. Heinz) that has a good reputation.

8) A family member is not worried about the food risk.

9) Shop in the cheaper supermarket.

10) Shop in the most expensive supermarket.

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Would not reduce  
or relieve my worry  
at all.

Would  
eliminate all  
my worry

1	2	3	4	5	6	7	8	9

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11) The food has clear and comprehensive labelling.

12) A respected celebrity is not worried about the food risk.

13) A money back guarantee.

14) Shop in the supermarket that you believe has the best image.

15) Buy the cheaper brand, product.

16) Buy the most expensive brand, product.

17) The food / ingredient / process has been approved by an independent/private testing company e.g. Which ? magazine.

## Part 5

(BSE)

In light of the recent BSE scare, have you done any of the following.

*(Please tick yes or no for all the responses)*

	Yes	No
1) None of the following are applicable to me because I never eat beef	<input type="checkbox"/>	<input type="checkbox"/>
2) Substituted all beef with another meat	<input type="checkbox"/>	<input type="checkbox"/>
3) Substituted all beef with vegetables	<input type="checkbox"/>	<input type="checkbox"/>
4) Substituted some beef with another meat	<input type="checkbox"/>	<input type="checkbox"/>
5) Substituted some beef with vegetables	<input type="checkbox"/>	<input type="checkbox"/>
6) Continued normal consumption levels of beef	<input type="checkbox"/>	<input type="checkbox"/>
7) Increased consumption level of beef when prices were reduced	<input type="checkbox"/>	<input type="checkbox"/>
8) Avoided cheaper beef products such as burgers, pies, sausages and continued to buy more expensive types of beef.	<input type="checkbox"/>	<input type="checkbox"/>

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## **APPENDIX 1.2**

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### **MAIN STUDY QUESTIONNAIRE VARIABLE CODES**

**Part Two. The Screening Instrument**

**Part Three. Food Risk Perception Questionnaire**

**Part Four. Risk Relieving Strategy Questionnaire**

## Part Two. Screening Instrument Variables and Codes

Ref	Variable	Code
1.	I am primarily motivated by a need to feel secure	Secure
2.	I am primarily motivated by a need for self discovery	Discovery
3.	I am motivated by the desire to have the best	Best
4.	I am not keen to seek change	Nochange
5.	I am largely unconcerned about the opinion of me held by the world at large	World
6.	I would describe myself as fairly unconventional	Unconven
7.	Winning is a priority for me	Winning
8.	I tend to be set in my ways	Setways
9.	I believe that the breakdown of tradition causes instability in society	Trad
10.	I am strongly motivated to get ahead of others	Ahead
11.	I voice my opinions even if it means disagreeing with others or being unpopular	Voiceops
12.	I tend to hold onto my existing lifestyle	Holdlife
13.	I'm motivated by a desire to improve my status	Status
14.	I work most effectively where there are few rules and little structure	Fewrules
15.	I take pride in keeping up appearances	Appear
16.	I believe groups with alternative values and lifestyles are a positive force in society	Alternat
17.	I tend to make sure that other people know all about my successes	Mysuccess
18.	I invest relatively little time in making new contacts / friends	Contacts

### Part Three. Food Risk Perception Questionnaire Variables and Codes

Ref	Variable	Code
1.	Genetically engineered foods	geneng
2.	Buying an expensive food brand	expbrand
3.	Paying more for expensively and attractively packaged food	exppack
4.	BSE (sometimes described as mad cow's disease)	BSE
5.	Paying more for pre prepared vegetables e.g. Pre - packed, washed raw cauliflower florets	prepared
6.	Pesticides, fertilisers, veterinary drug residues in foods	pestfert
7.	Using a cheap food supermarket	cheapsup
8.	High salt diet	highsalt
9.	Artificial food preservatives	artipres
10.	High fat diet	highfat
11.	Information on packaging that may be misleading	informis
12.	Food packaging which is not recyclable	notrepac
13.	Having to buy a different or new brand because your usual brand is out of stock	difbrand
14.	Throwing away food that has past it's 'best before date'	throwbbd
16.	Using artificial sweeteners	artsweet
17.	The image of the food supermarket	imagesup
18.	Artificial food coloring	artcolor
19.	Buying a store's own label product (e.g. Tesco) as opposed to a manufacturers brand (e.g. Heinz)	ownlabel
20.	Limited information on food packaging	liminfo
21.	Artificial food flavourings	artflav
22.	Eating out as opposed to eating in	eatout
23.	Buying a cheap food brand	cheapbra
24.	Low fibre diet	lowfibre
25.	Trying a new or different supermarket to the one you usually use	difsup
26.	Using food grown or reared using non organic methods	nonorg
27.	Using unfamiliar ingredients in food preparation	unfaming
28.	Foods grown or / and produced by a company or country hat operate controversially	controv
29.	Using an expensive food supermarket	expsup

**Part Four. Risk Relieving Strategy Questionnaire Variables and Codes**

<b>Ref</b>	<b>Variable</b>	<b>Code</b>
1.	The food has been advertised a great deal	advert
2.	A person similar to yourself, is not worried about the food risk	similyou
3.	Try a free sample of the product on a trial basis before buying	freesamp
4.	Buy the brand that I have always bought and am familiar with	fambrand
5.	The food / ingredient / process has been approved by a Government body	govappro
6.	An expert on the food risk is not worried about it	expert
7.	Buy the brand (e.g. Heinz) that has a good reputation	brandrep
8.	A family member is not worried about the food risk	family
9.	Shop in the cheaper supermarket	cheapers
10.	Shop in the most expensive supermarket	expsuper
11.	The food has clear and comprehensive labelling	comlabel
12.	A respected celebrity is not worried about the food risk	celeb
13.	A money back guarantee	moneybac
14.	Shop in the supermarket that you believe has the best image	supimage
15.	Buy the cheaper brand / product	cheaperb
16.	Buy the most expensive brand / product	expbra
17.	The food / ingredient / process has been approved by an independent / private testing company e.g. Which ? magazine	indeapro

### **CORRELATION MATRIX**

(Results of Dominant Sample of 54, (18 Sustenance driven, 18 Outer directed and 18 Inner directed) (Using Pearson Correlation))

- 2.1 Correlation between the Social Value Variables within the Screening Instrument (Part Two of the Questionnaire)
- 2.2 Correlation between the Food Risk Perception Variables within Part Three of the Questionnaire
- 2.3 Correlation between the Risk Relieving Strategy Variables within Part Four of the Questionnaire
- 2.4 Correlation between the Social Value Variables (Part Two of the Questionnaire) and the Food Risk Perception Variables (Part Three of the Questionnaire)
- 2.5 Correlation between the Social Value Variables (Part Two of the Questionnaire) and the Risk Relieving Strategy Variables (Part Four of the Questionnaire)

Coefficients / significance levels are only detailed when  $<0.05$ .

## APPENDIX 2.1

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Correlation between the Social Value Variables within the Screening Instrument (Part Two of the Questionnaire)



## APPENDIX 2.2

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Correlation between the Food Risk Perception Variables within Part Three  
of the Questionnaire

geneng	expbran	expack	BSE	preparat	pestliert	cheapsu	highsalt	artipres	highlat	informs	notrepac	dilbrand	throwbb	artsweet	imgagesst	articolur	owmlabq	liminlo	artilav	eatout	cheapbr	lowfilbrq	dilsup	nonorg	unifamin	controv	
geneng	0.3122	0.3735	+	+	0.3177	+	0.5038	+	+	0.3644	+	0.3769	+	0.5360	+	0.3808	0.2778	0.4626	0.6366	+	+	+	0.3260	+	0.3298	0.310	
expbrand	0.0230	0.0060	+	+	0.0190	+	0.0000	+	+	0.0070	+	0.0050	+	0.0000	+	0.0050	0.0440	0.0000	0.0000	0.0080	+	+	0.3026	+	0.3298	0.022	
exppack	0.3122	0.6518	+	+	+	+	+	+	+	+	+	0.3856	+	+	+	+	+	+	+	0.4335	+	+	0.0280	+	0.0160	0.2864	
BSE	0.0230	0.0000	+	+	+	+	+	+	+	+	+	0.0040	+	+	+	+	+	+	+	0.0010	+	+	+	+	0.0380	0.034	
prepared	0.3735	0.6518	+	+	0.4956	+	0.4303	+	0.3023	+	0.3332	+	+	0.4627	+	0.4550	+	+	0.3070	0.4165	+	+	+	+	+	0.291	
pestliert	0.0060	0.0000	+	+	0.0000	+	0.0010	+	0.0280	+	0.0140	+	+	0.0010	+	0.0010	+	+	0.0250	0.0020	+	+	+	+	+	0.000	
cheapsup	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0.6847	+	+	+	+	+	
highsalt	+	+	+	+	0.2988	+	0.5326	+	0.5530	0.4856	0.3199	+	+	+	+	+	+	+	0.3057	0.4165	+	+	+	+	+	0.321	
artipres	0.5038	0.4303	+	+	0.0280	+	0.4933	+	0.3429	0.3646	0.0180	+	+	0.3847	+	0.6281	+	+	0.4687	0.0250	+	+	+	+	+	0.018	
highlat	0.0000	0.0010	+	+	0.0000	+	0.0000	+	0.0110	0.0070	0.0000	+	+	0.0040	+	0.0000	+	+	0.0000	0.0270	+	+	+	+	+	0.000	
informs	+	+	+	+	0.3322	+	0.0000	+	0.0000	0.0000	0.5089	+	+	0.3967	+	0.0000	+	+	0.0000	0.0000	0.0000	+	+	+	+	+	0.000
notrepac	0.3644	0.3023	+	+	0.3829	+	0.4856	+	0.6602	0.3646	0.0000	+	+	0.3967	+	0.0000	+	+	0.4862	0.0000	+	+	+	+	+	0.551	
dilbrand	0.0070	0.3856	+	+	0.0040	+	0.0000	+	0.0000	0.5089	+	+	0.0030	0.0030	+	0.0000	+	+	0.0000	0.0000	+	+	+	+	+	0.000	
throwbbd	0.3769	0.3856	+	+	0.0020	+	0.2935	+	0.0310	0.0000	+	+	+	0.0000	+	0.0000	+	+	0.4214	0.0450	+	+	+	+	+	0.000	
articolur	0.0050	0.0010	+	+	0.4827	+	0.6281	+	0.0000	0.0000	+	+	+	0.0000	+	0.0000	+	+	0.5742	0.0000	+	+	+	+	+	0.344	
owmlabq	0.2778	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0.0000	0.0000	+	+	+	+	+	0.010	
liminlo	0.0440	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0.3989	0.0030	+	+	+	+	+	0.504	
artilav	0.6366	+	+	+	0.3137	+	0.4687	+	0.0000	0.0000	+	+	+	0.0000	+	0.0000	+	+	0.0010	0.3458	+	+	+	+	+	0.000	
eatout	0.0000	0.0250	+	+	0.0210	+	0.0000	+	0.0000	0.0000	+	+	+	0.0000	+	0.0000	+	+	0.0100	0.0100	+	+	+	+	+	0.044	
cheapbra	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0.4886	0.0000	+	+	+	+	+	0.000	
lowfilbre	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0.2856	0.0360	+	+	+	+	+	0.4017	
dilsup	0.3026	0.0280	+	+	0.0000	+	0.2926	+	0.0320	0.0000	+	+	+	0.0000	+	0.0000	+	+	0.0000	0.0000	+	+	+	+	+	0.0030	
nonorg	0.3560	+	+	+	0.3006	+	+	+	+	+	+	+	+	+	+	+	+	+	0.3458	0.0100	+	+	+	+	+	0.0350	
unifamin	0.0080	0.2864	+	+	0.0270	+	+	+	+	+	+	+	+	+	+	+	+	+	0.2856	0.0360	+	+	+	+	+	0.000	
controv	0.3105	0.2916	+	+	0.6603	+	0.3744	+	0.4986	0.5511	+	+	+	+	+	+	+	+	0.4017	0.0000	+	+	+	+	+	0.0030	
expsup	0.0220	0.0340	+	+	0.0000	+	0.0050	+	0.0000	0.0000	+	+	+	0.3082	+	0.0100	+	+	0.0430	0.3163	+	+	+	+	+	0.3244	
	0.0000	0.0000	+	+	0.0150	+	+	+	+	+	+	+	0.0250	+	+	+	+	+	0.0210	0.0210	+	+	+	+	+	0.0180	

## APPENDIX 2.3

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Correlation between the Risk Relieving Strategy Variables within Part  
Four of the Questionnaire

advert	similyou	freesamp	fambrand	govappro	expert	brandrep	family	cheapers	expsuper	comlabel	celeb	moneybac	supimage	cheaperb	expbra	indeappr	
advert	0.4959 0.0000	+	0.4674 0.0000	0.5084 0.0000	0.4674 0.0000	0.4350 0.0000	+	+	0.2738 0.0430	+	0.3682 0.0060	0.3153 0.0200	+	+	0.3291 0.0150	0.2927 0.0320	
similyou	0.4959 0.0000	0.3666 0.0060	0.3308 0.0160	0.3139 0.0210	0.3231 0.0170	0.2852 0.0370	+	+	0.3230 0.0170	+	0.2993 0.0280	0.3668 0.0060	+	+	0.2925 0.0320	+	
freesamp	+	0.3666 0.0060	0.3666 0.0060	0.5058 0.0000	0.3684 0.0060	0.4455 0.0010	0.3946 0.0030	0.5431 0.0000	0.4065 0.0020	0.6513 0.0000	+	0.7003 0.0000	0.4221 0.0010	0.4887 0.0000	0.2895 0.0340	+	+
fambrand	+	0.3308 0.0160	0.3308 0.0160	0.4191 0.0020	0.3940 0.0040	0.4767 0.0000	0.5152 0.0000	0.4621 0.0000	0.2972 0.0310	0.4902 0.0000	0.2792 0.0430	0.5395 0.0000	0.4060 0.0030	0.5291 0.0000	0.3040 0.0270	+	+
govapprov	0.5084 0.0000	0.5038 0.0000	0.4191 0.0020	0.7040 0.0000	0.7040 0.0000	0.4459 0.0010	0.4689 0.0000	0.3651 0.0070	0.5269 0.0000	+	0.5407 0.0000	0.5153 0.0000	0.5502 0.0000	+	0.5040 0.0000	+	+
expert	0.4674 0.0000	0.3684 0.0060	0.3684 0.0060	0.7040 0.0000	0.4016 0.0030	0.4016 0.0030	0.3512 0.0090	0.4511 0.0010	0.5022 0.0000	+	0.5387 0.0000	0.4610 0.0000	0.5400 0.0000	0.3297 0.0150	0.4422 0.0010	0.5302 0.0000	0.5302 0.0000
brandrep	0.4350 0.0010	0.4455 0.0010	0.4767 0.0000	0.4459 0.0010	0.4016 0.0030	0.5181 0.0000	0.5181 0.0000	0.2944 0.0310	0.3086 0.0230	0.3377 0.0130	0.4104 0.0020	0.3623 0.0070	0.5691 0.0000	0.2827 0.0380	0.3612 0.0070	0.4237 0.0010	0.4237 0.0010
family	+	0.3946 0.0030	0.5152 0.0000	0.4689 0.0000	0.3512 0.0090	0.5181 0.0000	0.3512 0.0090	0.4511 0.0010	0.5022 0.0000	+	0.5006 0.0000	0.6015 0.0000	0.4569 0.0010	0.3867 0.0040	0.2798 0.0400	+	+
cheapers	+	0.5431 0.0000	0.4621 0.0000	0.3651 0.0070	0.4511 0.0010	0.2944 0.0310	0.5451 0.0000	0.0000	0.5146 0.0000	0.4000 0.0030	0.4256 0.0010	0.7737 0.0000	0.4092 0.0020	0.8610 0.0000	0.2854 0.0360	+	+
expsuper	0.2738 0.0430	0.3230 0.0170	0.5269 0.0000	0.5022 0.0000	0.5022 0.0000	0.3086 0.0230	0.3954 0.0030	0.5146 0.0000	+	+	0.4502 0.0010	0.3914 0.0030	0.4143 0.0020	0.3798 0.0050	0.8828 0.0000	+	+
comlabel	+	0.6513 0.0000	0.4902 0.0000	+	+	0.3377 0.0130	+	0.4000 0.0030	+	+	+	0.4609 0.0000	0.3692 0.0060	0.4122 0.0020	+	0.3488 0.0100	0.3488 0.0100
celeb	0.3682 0.0060	0.2993 0.0280	+	0.5407 0.0430	0.5387 0.0000	0.4104 0.0020	0.5006 0.0000	0.4256 0.0010	0.4502 0.0010	+	+	0.4711 0.0000	0.4623 0.0000	0.4187 0.0020	0.4552 0.0010	+	+
moneybac	0.3153 0.0200	0.3669 0.0060	0.7003 0.0000	0.5502 0.0000	0.4610 0.0000	0.3623 0.0007	0.6015 0.0000	0.4256 0.0010	0.3914 0.0030	0.4609 0.0000	0.4711 0.0000	0.4711 0.0000	0.4623 0.0000	0.4187 0.0020	0.4552 0.0010	+	+
supimage	+	0.4221 0.0010	0.4060 0.0030	0.5502 0.0000	0.5400 0.0000	0.5691 0.0000	0.4569 0.0010	0.4092 0.0020	0.4143 0.0020	0.3692 0.0000	0.4623 0.0000	0.4707 0.0000	0.3405 0.0120	0.3405 0.0120	0.3614 0.0070	0.3992 0.0030	0.3992 0.0030
cheaperb	+	0.4887 0.0000	0.5291 0.0000	+	0.3297 0.0150	0.2827 0.0380	0.3867 0.0040	0.8610 0.0000	0.3798 0.0050	0.4122 0.0020	0.4187 0.0020	0.6350 0.0000	0.3405 0.0120	0.3405 0.0120	0.3106 0.0220	+	+
expbra	0.3291 0.0150	0.2925 0.0320	0.2895 0.0340	0.5040 0.0000	0.4422 0.0010	0.3612 0.0070	0.2798 0.0400	0.2854 0.0360	0.8828 0.0000	+	0.4552 0.0010	0.3614 0.0070	0.3614 0.0070	0.3106 0.0220	+	+	+
indeappr	0.2927 0.0320	+	+	+	0.5302 0.0000	0.4237 0.0010	+	+	+	0.3488 0.0100	+	+	0.3992 0.0030	+	+	+	+

## APPENDIX 2.4

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Correlation between the Social Value Variables (Part Two of the Questionnaire) and the Food Risk Perception Variables (Part Three of the Questionnaire)

	geneng	exprand	expack	BSE	prepared	pestfert	cheapsup	highsalt	artipres	highfat	informis	notreac	diffbrand	throwbbd	artsweet	imagesup	artcolor	ownlabel	liminfo	artflav	eatout	cheaptra	lowfibre	dfisup	nonong	unflaming	control
secure	-	0.2872 0.0370	+	-	+	+	-	-	+	+	+	-	+	+	-	-	-	-0.3217 0.0190	+	-	-	-	-	+	+	-	
discover	0.3565 0.0080	+	+	+	0.3202 0.0180	+	+	0.3825 0.0040	+	0.2882 0.0350	0.3761 0.0060	0.3195 0.0190	+	0.4223 0.0020	+	0.3280 0.0150	+	0.284 0.037	+	0.4223 0.0020	+	0.3280 0.0150	+	0.3280 0.0150	+	0.284 0.037	
best	-	-	-0.2945 0.0320	-	-	-	-	0.2865 0.0360	+	0.3205 0.0180	+	+	+	+	+	0.2885 0.0360	-	-	+	+	-	-	+	-	-	-	
nochange	-	+	0.3056 0.0260	+	+	0.3018 0.0270	-	-	-	-	-	-0.3573 0.0080	+	+	+	-0.3591 0.0080	-	+	-	+	+	+	+	+	0.3464 0.0100	-	
world	-	-	+	-	0.4025 0.0030	+	-	-	-	-	+	-0.3481 0.0100	+	+	+	-	+	+	+	+	+	+	+	-	+		
unconven	+	-	+	+	+	+	-	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
winning	-	-0.3080 0.0250	+	-	-0.4629 0.0000	+	-	-	-	+	-	0.3364 0.0130	+	+	+	+	-0.3188 0.0200	-	+	+	+	+	+	+	+	-0.326 0.016	
setways	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
trad	+	-	-	-0.2832 0.0380	+	+	0.3097 0.0230	+	+	+	+	-	0.3083 0.0230	+	+	+	+	+	+	+	+	+	+	+	+	+	
ahead	-	-	-0.4515 0.0010	-	-	-0.3111 0.0220	+	+	-	+	-	0.2915 0.0320	+	-0.2773 0.0420	-	0.3201 0.0190	-	-	-	-	-	-	+	+	+	0.2993 0.0280	
voicops	+	+	+	-	+	+	-	+	+	+	0.3126 0.0210	0.3952 0.0030	+	0.2956 0.0300	+	+	+	+	+	+	+	+	0.3410 0.0120	+	0.3696 0.0060	+	
holdlife	+	0.3201 0.0190	+	+	+	+	+	-	+	+	-	-	0.3438 0.0110	+	+	+	+	+	+	+	+	+	+	+	+	+	
status	-0.3622 0.0070	-	-	-0.4192 0.0020	-	-0.3909 0.0030	+	+	-	0.3062 0.0240	+	-	+	-	-	+	-0.3075 0.0240	-	-	-	-	+	+	-	-	-	
fewrules	+	+	+	-	+	+	+	+	+	+	+	+	-0.3471 0.0100	-0.2743 0.0450	+	+	0.4028 0.0030	+	+	+	+	+	+	+	+	0.411 0.002	
appear	+	-	-0.3506 0.0100	-	-0.3726 0.0060	+	+	+	+	+	-	-	0.3179 0.0190	-	-	+	-	+	+	+	+	+	+	+	+	-	
alternat	0.3553 0.0080	+	0.4358 0.0010	-	0.4047 0.0020	0.5663 0.0000	-	0.3136 0.0210	0.3571 0.0080	+	0.4550 0.0010	0.6406 0.0000	-	+	0.4356 0.0010	+	0.4360 0.0010	+	+	0.3781 0.0050	+	-	+	-	0.600 0.000		
mysucces	-	-	-0.4775 0.0000	-	-0.4080 0.0020	-	+	-	-0.3947 0.0030	+	-	-	+	+	-	-	-0.4191 0.0020	-	+	-	-0.3729 0.0050	+	+	-	-	-	
contacts	-	+	+	0.3265 0.0160	+	+	-	+	+	-0.2689 0.0490	-0.3064 0.0240	-0.3573 0.0080	-	-	-	-0.2830 0.0400	+	-	-0.3519 0.0090	+	+	-	+	+	-		

## APPENDIX 2.5

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Correlation between the Social Value Variables (Part Two of the Questionnaire) and the Risk Relieving Strategy Variables (Part Four of the Questionnaire)

	advert	similyou	freesamp	fambrand	govappro	expert	brandrep	family	cheapers	expsuper	comlabel	celeb	moneybac	supimage	cheaperb	expbra	indeappr
secure	+	-	+	+	+	+	+	+	0.3084 0.0230	-	-	+	0.2693 0.0490	+	+	-	+
discover	-	-	-	-	-0.3164 0.0200	-	-	-	-	-	+	-	-	-	-	-	0.2997 0.0280
best	0.3162 0.0200	-	+	+	0.4218 0.0010	0.2883 0.0350	0.3939 0.0030	+	+	0.4548 0.0010	+	+	+	0.3513 0.0090	0.2711 0.0470	0.4654 0.0000	+
nochange	+	+	-	+	-	-	-	-	-	-	-0.2854 0.0360	+	+	-	+	-0.2891 0.0340	-0.3455 0.0100
world	-0.3317 0.0140	-	+	-	-	-0.3150 0.0200	-0.3963 0.0030	-	-	-	+	-	-	-0.2697 0.0490	-	-	-
unconven	-	-	+	-	-	-	-	-	-	-	0.3311 0.0140	-0.3216 0.0180	-	-	+	-	+
winning	0.5365 0.0000	+	+	+	0.3686 0.0060	+	0.3571 0.0080	+	-	0.3611 0.0070	+	+	+	+	-	0.4221 0.0010	+
setways	+	+	-	+	+	+	-	+	-	-	-	+	+	+	+	-	-
trad	0.2718 0.0470	+	+	+	+	-	+	-	-	-	+	+	+	+	-	-	-
ahead	0.4809 0.0000	0.3214 0.0180	+	+	0.3989 0.0030	0.3474 0.0100	0.3939 0.0030	+	+	0.4968 0.0000	+	0.3121 0.0220	+	0.3540 0.0090	-	0.5540 0.0000	+
voiccps	+	-	-	-	-	-	+	-	-	+	0.3523 0.0090	-0.2787 0.0410	-	-	-	+	+
holdlife	+	-	-	-	+	-	-	-	-	-	-0.2826 0.0380	-	-	+	-	-	-0.345 0.010
status	0.3511 0.0090	+	+	+	0.4344 0.0010	0.3254 0.0160	0.4017 0.0030	+	+	0.3736 0.0050	-	0.2825 0.0380	+	0.2750 0.0440	+	0.3619 0.0070	+
fewrules	-	+	+	+	-	-	-	+	+	+	+	-	+	+	+	+	+
appear	+	+	-	+	+	+	+	+	-	+	-	0.2939 0.0310	+	0.2835 0.0380	-	+	-
alternat	-0.4172 0.0020	-0.3287 0.0150	-	-0.2755 0.0460	-0.5030 0.0000	-0.4157 0.0020	-	-	+	-	+	-0.4518 0.0010	-	+	+	-0.3193 0.0190	+
mysucces	0.3027 0.0260	0.3105 0.0220	+	-	0.2834 0.0380	0.2697 0.0490	+	-	+	-	-	+	-	0.3843 0.0040	+	+	+
contacts	-	-	-	+	+	-	-	0.2760 0.0430	+	-0.3003 0.0270	-0.2835 0.0380	+	+	-	-	-0.3557 0.0080	-0.29 0.02

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## APPENDIX 3

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### CORRELATION MATRIX

(Results of the Total Homogeneous Sample)

- 3.1 Correlation between the Social Value Variables within the Screening Instrument (Part Two of the Questionnaire)
- 3.2 Correlation between the Food Risk Perception Variables within Part Three of the Questionnaire
- 3.3 Correlation between the Risk Relieving Strategy Variables within Part Four of the Questionnaire
- 3.4 Correlation between the Social Value Variables (Part Two of the Questionnaire) and the Food Risk Perception Variables (Part Three of the Questionnaire)
- 3.5 Correlation between the Social Value Variables (Part Two of the Questionnaire) and the Risk Relieving Strategy Variables (Part Four of the Questionnaire)

Coefficients / significance levels are only detailed when  $<0.05$ .

## APPENDIX 3.1

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Correlation between the Social Value Variables within the Screening Instrument (Part Two of the Questionnaire)

	secure	discover	best	nochange	world	unconven	winning	setways	trad	ahead	voiccoeps	holdlife	status	fewrules	appear	alternat	mysuucces	conta
secure		+	+	0.2783 0.0000	-0.2157 0.0010	-0.2635 0.0000	+	0.2671 0.0000	0.1756 0.0100	-	-	0.2202 0.0010	+	-	+	-	+	
discover	+		+	-	-	0.2225 0.0010	+	-	-	+	0.1545 0.0230	-	+	+	-	0.2480 0.0000	0.1882 0.0060	
best	+	+		-	-	-	0.5090 0.0000	-	0.2106 0.0020	0.4895 0.0000	+	+	0.4404 0.0000	+	0.3207 0.0000	-	+	
nochange	0.2783 0.0000	-	-	+	+	-0.1929 0.0050	-0.1585 0.0200	0.4985 0.0000	0.3787 0.0000	-0.1863 0.0060	-0.1823 0.0070	0.3448 0.0000	-0.1435 0.0350	-	0.1489 0.0290	-0.3360 0.0000	-	0.1543 0.0240
world	-0.2157 0.0010	-	-	+	-	0.2728 0.0000	-	-	+	-	+	-	-	0.2655 0.0000	-	-	-	+
unconver	-0.2635 0.0000	0.2225 0.0010	-	-0.1929 0.0050	0.2728 0.0000	-	+	-	-0.2211 0.0010	+	0.3142 0.0000	-	-	0.3752 0.0000	-0.1734 0.0110	0.3308 0.0000	+	+
winning	+	+	0.5090 0.0000	-0.1585 0.0200	-	+	-	+	+	0.6916 0.0000	0.1498 0.0280	-	0.4229 0.0000	+	0.2529 0.0000	-	0.2250 0.0010	-
setways	0.2671 0.0000	-	-	0.4985 0.0000	-	-	+	-	0.1772 0.0090	-	-	0.3451 0.0000	+	-	0.2653 0.0000	-0.2486 0.0000	+	+
trad	0.1756 0.0100	+	0.2106 0.0020	0.3787 0.0000	0.3787 0.0000	-0.2211 0.0010	0.1772 0.0090	0.1772 0.0090	+	+	-0.1362 0.0460	+	+	-	0.2754 0.0000	-0.3623 0.0000	+	+
ahead	-	+	0.4895 0.0000	-0.1863 0.0060	-	+	0.6916 0.0000	-	+	-	+	-	0.4783 0.0000	+	0.3539 0.0000	-	0.2673 0.0000	-0.1368 0.0450
voiccoeps	-	0.1545 0.0230	+	-0.1823 0.0070	-	0.3142 0.0000	0.1498 0.0280	-	-0.1362 0.0460	+	+	+	+	+	-	0.1501 0.0280	+	-0.2593 0.0000
holdlife	0.2202 0.0010	-	0.4404 0.0000	-0.1435 0.0350	-	0.4229 0.0000	-	0.3451 0.0000	+	-	+	+	+	-	0.3017 0.0000	-	0.2518 0.0000	+
status	+	+	0.4404 0.0000	-0.1435 0.0350	-	0.4229 0.0000	-	0.3451 0.0000	+	0.4783 0.0000	+	+	+	+	0.3017 0.0000	-	0.2518 0.0000	+
fewrules	-	+	+	-	0.2655 0.0000	0.3752 0.0000	+	-	-	+	+	-	+	-	-	0.1853 0.0060	+	-
appear	+	-	0.3207 0.0000	0.1489 0.0290	-	-0.1734 0.0110	0.2529 0.0000	0.2653 0.0000	0.2754 0.0000	0.3539 0.0000	-	+	0.3017 0.0000	-	-	-0.2275 0.0010	0.1835 0.0070	-
alternat	-	0.2480 0.0000	-	-0.3360 0.0000	-	0.3308 0.0000	-	-0.2486 0.0000	-0.3623 0.0000	-	0.1501 0.0280	-	-	0.1853 0.0060	-0.2275 0.0010	0.0010	+	+
mysuucces	+	0.1882 0.0060	+	-	-	0.2250 0.0010	+	+	+	0.2673 0.0000	+	+	0.2518 0.0000	+	0.1835 0.0070	+	-	-
contacts	+	-	-	0.1543 0.0240	+	+	-	+	+	-0.1368 0.0450	+	+	-	-	-	+	-	-

## APPENDIX 3.2

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Correlation between the Food Risk Perception Variables within Part Three  
of the Questionnaire



## APPENDIX 3.3

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Correlation between the Risk Relieving Strategy Variables within Part  
Four of the Questionnaire

	advt	similyou	freesamp	fambrand	govappro	expert	brandrep	family	cheapers	expsuper	comlabel	celeb	moneybac	supimage	cheaperb	expbra	indeappr
advt		0.5069 0.0000	0.3508 0.0000	0.3770 0.0000	0.4897 0.0000	0.3563 0.0000	0.4739 0.0000	0.4096 0.0000	0.2318 0.0010	0.3485 0.0000	0.1644 0.0170	0.4386 0.0000	0.2958 0.0000	0.3776 0.0000	0.2029 0.0030	0.3364 0.0000	0.2015 0.0030
similyou	0.5069 0.0000		0.3170 0.0000	0.2208 0.0010	0.3599 0.0000	0.2517 0.0000	0.2738 0.0000	0.4249 0.0000	0.2591 0.0000	0.3227 0.0000	+	0.4155 0.0000	0.2957 0.0000	0.2333 0.0010	0.2099 0.0020	0.3106 0.0000	0.1569 0.0220
freesamp	0.3508 0.0000	0.3170 0.0000		0.4621 0.0000	0.2499 0.0000	0.1753 0.0100	0.3476 0.0000	0.3312 0.0000	0.3347 0.0000	0.2843 0.0000	0.3314 0.0000	0.2332 0.0010	0.4670 0.0000	0.1590 0.0000	0.4061 0.0000	0.3274 0.0000	+
fambrand	0.3770 0.0000	0.2208 0.0010	0.4621 0.0000		0.3739 0.0000	0.2767 0.0000	0.5085 0.0000	0.4477 0.0000	0.3098 0.0000	0.3593 0.0000	0.3277 0.0000	0.2296 0.0010	0.3890 0.0000	0.4783 0.0000	0.3111 0.0000	0.3643 0.0000	0.2024 0.0030
govapprov	0.4897 0.0000	0.3599 0.0000	0.2499 0.0000	0.3739 0.0000		0.6253 0.0000	0.3606 0.0000	0.3435 0.0000	0.3207 0.0000	0.3650 0.0000	0.1581 0.0210	0.3942 0.0000	0.2865 0.0000	0.3678 0.0000	0.2007 0.0030	0.2964 0.0000	0.2452 0.0000
expert	0.3563 0.0000	0.2517 0.0000	0.1753 0.0100	0.3767 0.0000	0.6253 0.0000		0.3134 0.0000	0.2161 0.0010	0.2208 0.0010	0.2825 0.0000	+	0.3041 0.0000	0.1499 0.0290	0.2513 0.0000	+	0.2087 0.0020	0.4035 0.0000
brandrep	0.4739 0.0000	0.2738 0.0000	0.3348 0.0000	0.5085 0.0000	0.3606 0.0000	0.3134 0.0000		0.4380 0.0000	0.2231 0.0010	0.3508 0.0000	0.3207 0.0000	0.2705 0.0000	0.2602 0.0000	0.4835 0.0000	0.1938 0.0040	0.3741 0.0000	0.3571 0.0000
family	0.4096 0.0000	0.4249 0.0000	0.3312 0.0000	0.4477 0.0000	0.3435 0.0000	0.2161 0.0010	0.4380 0.0000		0.4987 0.0000	0.4347 0.0000	+	0.4652 0.0000	0.4400 0.0000	0.4058 0.0000	0.0373 0.0000	0.2909 0.0000	0.1603 0.0190
cheapers	0.2318 0.0010	0.2591 0.0000	0.3347 0.0000	0.3098 0.0000	0.3593 0.0000	0.3207 0.0010	0.2231 0.0010	0.4380 0.0000	0.2231 0.0010	0.3508 0.0000	0.3207 0.0000	0.2705 0.0000	0.2602 0.0000	0.4835 0.0000	0.1938 0.0040	0.3741 0.0000	0.3571 0.0000
expsuper	0.3485 0.0000	0.3227 0.0000															
comlabel	0.1644 0.0170	+	0.3314 0.0000	0.3277 0.0000	0.1581 0.0210	0.1581 0.0210	0.3207 0.0000	0.3207 0.0000	0.2164 0.0020	0.2151 0.0020	+	0.3010 0.0000	0.3174 0.0000	0.3010 0.0000	0.2344 0.0010	0.1941 0.0050	0.3920 0.0000
celeb	0.4386 0.0000	0.4155 0.0000	0.2332 0.0010	0.2296 0.0010	0.3942 0.0000	0.3041 0.0000	0.2705 0.0000	0.4652 0.0000	0.4110 0.0000	0.3410 0.0000	+	0.4525 0.0000	0.4525 0.0000	0.3852 0.0000	0.4273 0.0000	0.3797 0.0000	+
moneybac	0.2958 0.0000	0.2977 0.0000	0.4670 0.0000	0.3890 0.0000	0.2865 0.0000	0.1499 0.0290	0.2602 0.0000	0.4400 0.0000	0.4370 0.0000	0.2749 0.0000	0.3174 0.0000	0.4525 0.0000	0.4542 0.0000	0.4542 0.0000	0.5215 0.0000	0.3402 0.0000	0.2080 0.0020
supimage	0.3776 0.0000	0.2333 0.0010	0.3159 0.0000	0.4783 0.0000	0.3678 0.0000	0.2513 0.0000	0.4835 0.0000	0.4058 0.0000	0.3090 0.0000	0.4947 0.0000	0.3010 0.0000	0.3852 0.0000	0.4542 0.0000	0.3110 0.0000	0.3110 0.0000	0.5553 0.0000	0.2763 0.0000
cheaperb	0.2029 0.0030	0.2099 0.0020	0.4061 0.0000	0.3111 0.0000	0.2007 0.0030	+	0.1938 0.0040	0.3734 0.0000	0.6968 0.0000	0.3375 0.0000	0.2344 0.0010	0.4273 0.0000	0.5215 0.0000	0.3110 0.0000	+	0.3939 0.0000	+
expbra	0.3364 0.0000	0.3106 0.0000	0.3274 0.0000	0.3643 0.0000	0.2964 0.0000	0.2087 0.0020	0.3741 0.0000	0.2909 0.0000	0.2426 0.0000	0.7597 0.0000	0.1941 0.0050	0.3797 0.0000	0.3402 0.0000	0.5553 0.0000	0.3939 0.0000	0.1800 0.0080	0.1800 0.0080
indeappr	0.2015 0.0030	0.1569 0.0220	+	0.2024 0.0030	0.2452 0.0000	0.4035 0.0000	0.3571 0.0000	0.1603 0.0190	0.1603 0.0190	0.1603 0.0190	0.3920 0.0000	0.2763 0.0000	0.2080 0.0020	0.2763 0.0000	+	0.1800 0.0080	0.1800 0.0080

## APPENDIX 3.4

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Correlation between the Social Value Variables (Part Two of the Questionnaire) and the Food Risk Perception Variables (Part Three of the Questionnaire)



## APPENDIX 3.5

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Correlation between the Social Value Variables (Part Two of the Questionnaire) and the Risk Relieving Strategy Variables (Part Four of the Questionnaire)

	advert	similiyou	freesamp	fambrand	govappro	expert	brandrep	family	cheapers	expsuper	comlabel	celeb	moneybac	supimage	cheaperb	expbra	indeappr
secure	0.16360 0.01700	+	+	0.15680 0.02200	+	+	+	+	0.13980 0.04100	+	-0.14960 0.02900	+	0.15980 0.02000	0.22060 0.00100	+	-	-
discover	-	+	+	-	-	-	+	-	-	+	+	+	+	-	+	+	+
best	0.15850 0.02100	-	+	+	0.16900 0.01300	+	0.15460 0.02400	+	+	0.22010 0.00100	-	+	0.14810 0.03100	0.22570 0.00100	+	0.24710 0.00000	+
nochange	0.16520 0.01600	+	+	+	+	-	+	0.15890 0.02000	+	-	-	+	+	+	+	-	-
world	-	-	+	-	-	-	-0.19480 0.00400	-	+	-	+	-	-	-0.18240 0.00800	+	-	-
unconven	-	-	+	-	-	+	-	-	+	-	+	+	-	-	+	-	-
winning	0.19600 0.00400	+	+	+	+	+	0.20560 0.00300	+	+	0.23700 0.00000	+	0.17420 0.01100	+	0.23360 0.00100	+	0.28320 0.00000	-
setways	0.22370 0.00100	+	+	0.18540 0.00700	0.14670 0.03200	+	+	0.15780 0.02100	+	+	-	0.27450 0.00000	+	0.14500 0.03400	+	0.13450 0.04900	-
trad	+	+	+	+	+	-	+	+	+	+	-	+	+	+	+	-	-
ahead	0.21590 0.00200	+	+	0.19960 0.00300	0.13850 0.04300	+	0.21960 0.00100	0.14350 0.03600	+	0.25690 0.00000	+	0.19000 0.00500	+	0.20490 0.00300	+	0.27480 0.00000	-
voiceops	-	-	-	-	-	-	-	-0.15590 0.02200	-	-	+	-	-	-	-	-	+
holdlife	+	+	-	+	-	-	+	+	+	+	-	-	+	-	+	-	-
status	+	+	+	+	+	+	+	+	+	+	-	+	+	-	-	0.13830 0.04400	-
fewrules	+	+	+	0.19990 0.00300	-	-	-	+	+	+	+	+	+	-	0.15290 0.02500	+	-
appear	+	+	+	0.12420 0.07000	0.19640 0.00400	+	0.15190 0.02600	0.16380 0.01600	+	0.14050 0.04100	-	0.18630 0.00600	+	0.25550 0.00000	+	-	-
alternat	-0.24440 0.00000	-	-	-0.15110 0.02700	-	-	-	-0.19770 0.00400	-	-0.15180 0.02700	0.18270 0.00800	-	-0.18140 0.00800	-0.16600 0.01500	-	-0.14500 0.03400	+
mysucces	+	+	+	-	+	+	+	+	+	+	+	0.22110 0.00100	+	+	-	+	+
contacts	-	+	-	-	+	-	-	-	-	-0.20550 0.00300	-	-	-	-	-0.17430 0.01100	-0.15960 0.02000	-0.2 0.0

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**APPENDIX 4**

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**Interview One: Interview Guide / Schedule**

## **FAMILY**

**Can you tell me about your family, and what the family unit symbolises to you.**

How important is your family to you.

To what degree do you rely on your family.

To what degree do they influence your decisions.

What does the family provide for you.

Are you concerned about what other people think of your family.

How important is it to you that other people think favourably about your family.

How important are friends in comparison to your family.

## **WORK AND LEISURE**

**Can you tell me about your work and leisure time and how they relate to each other.**

How does your work time and leisure time relate, are they very separate things in the your life or do they have common features.

Is your leisure time and you work time of equal importance to you.

How much leisure time to you have, is it enough.

How do you spend your leisure time.

What kinds activities are you involved.

## **ATTITUDES TOWARDS AUTHORITY (THOUGH AN EXAMINATION OF HEALTH**

**Can you tell me about the type of health care you use.**

What kind of health care do you use, where do you turn when you are unwell.

How do you feel about going to the doctors.

How much confidence and trust do you have in doctors.

Would you consider private health care. Why

What kind of treatment/medication do you feel is best.

Would you consider alternative treatment or would you rather stick to more conventional treatment and medication.

What are your views on alternative medicine.

## **PREFERRED ORGANISATIONAL STRUCTURE**

**Can you describe to me the type of organisation you prefer to work in.**

What are the most important features in an organisation that allow you to work effectively and happily.

Do you like to work where things are very structured where rules and procedures are set clearly.

How do you think communication should occur.

Do you like to be managed or left to get on with things.

Do you think it is important to have managers on several different levels in an organisation.

If an opportunity came up for promotion with an increase in salary, but there was a possibility that you may not enjoy the job as much as the one you are currently doing. Would you take the promotion with the belief that the extra money is compensatory.

What motivates you within this organisation.

## **HOW COULD YOU IMPROVE YOUR LIFESTYLE?**

**WHAT KINDS OF THINGS MAKE YOU FEEL GOOD ABOUT YOURSELF ?**

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# APPENDIX 5

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## Social Value Score Profiles for the Total Homogeneous Sample of 215

### Social Value Score Profiles for Homogeneous Sample of 215

ID	Sust S/c	Inner S/c	Outer S/c	ID	Sust S/c	Inner S/c	Outer S/c	ID	Sust S/c	Inner S/c	Outer S/c
1	-3	2	5	73	-3	3	1	145	-6	-1	-8
<b>Outer</b>											
2	-2	-1	0	74	-5	-2	-7	146	2	-2	2
3	0	1	4	75	-2	2	6	147	-6	2	-3
<b>Outer</b>				<b>Outer</b>							
4	-5	0	-3	76	-5	3	-8	148	-1	4	-2
5	-5	-1	0	77	-3	-1	-5	149	4	0	7
6	-4	4	2	78	2	-1	-2	150	5	-2	-5
								<b>Sust</b>			
7	3	4	-8	79	-4	-1	-6	151	-5	4	-3
8	-3	-1	-3	80	2	-1	2	152	-2	0	-10
9	-4	3	-4	81	-7	10	-7	153	-2	7	-6
				<b>Inner</b>				<b>Inner</b>			
10	0	3	6	82	-3	1	3	154	4	-1	11
<b>Outer</b>								<b>Outer</b>			
11	-2	3	-1	83	-7	7	-3	155	3	-4	-1
				<b>Inner</b>							
12	0	1	2	84	-8	5	-1	156	0	-1	2
13	-4	4	5	85	-5	5	-2	157	-2	0	3
				<b>Inner</b>							
14	-2	2	-3	86	-3	2	4	158	-4	7	-4
								<b>Inner</b>			
15	-3	4	-1	87	-2	2	0	159	2	1	-2
16	-3	7	6	88	-1	3	-3	160	-3	5	0
17	-2	1	-2	89	-3	-2	-10	161	3	2	-2
18	-3	4	4	90	-3	5	0	162	-6	6	-4
								<b>Inner</b>			
19	7	-1	0	91	-3	1	-4	163	-4	9	-4
<b>Sust</b>								<b>Inner</b>			
20	-7	1	-3	92	-2	4	-3	164	5	-1	-1
								<b>Sust</b>			
21	0	4	-7	93	-3	3	-2	165	-4	0	-6
22	-4	-2	-6	94	3	0	-1	166	-1	6	-9
								<b>Inner</b>			
23	1	5	2	95	1	0	7	167	-1	2	1
				<b>Outer</b>							
24	-4	6	0	96	-2	3	-4	168	-7	4	-4

<b>Inner</b>											
<b>25</b>	<b>2</b>	<b>-1</b>	<b>5</b>	<b>97</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>169</b>	<b>-6</b>	<b>-2</b>	<b>-3</b>
<b>Outer</b>											
<b>26</b>	<b>-4</b>	<b>5</b>	<b>1</b>	<b>98</b>	<b>2</b>	<b>-1</b>	<b>1</b>	<b>170</b>	<b>-4</b>	<b>9</b>	<b>-5</b>
								<b>Inner</b>			
<b>27</b>	<b>-2</b>	<b>2</b>	<b>-6</b>	<b>99</b>	<b>5</b>	<b>-3</b>	<b>-4</b>	<b>171</b>	<b>-2</b>	<b>0</b>	<b>-2</b>
				<b>Sust</b>							
<b>28</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>100</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>172</b>	<b>-3</b>	<b>5</b>	<b>-6</b>
<b>Outer</b>											
<b>29</b>	<b>-1</b>	<b>-2</b>	<b>2</b>	<b>101</b>	<b>-1</b>	<b>0</b>	<b>-6</b>	<b>173</b>	<b>-2</b>	<b>4</b>	<b>-3</b>
<b>30</b>	<b>-3</b>	<b>2</b>	<b>-1</b>	<b>102</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>174</b>	<b>0</b>	<b>-2</b>	<b>-2</b>
<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>103</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>175</b>	<b>6</b>	<b>-4</b>	<b>2</b>
								<b>Sust</b>			
<b>32</b>	<b>-4</b>	<b>5</b>	<b>6</b>	<b>104</b>	<b>-4</b>	<b>-2</b>	<b>0</b>	<b>176</b>	<b>-2</b>	<b>-3</b>	<b>-4</b>
<b>33</b>	<b>4</b>	<b>5</b>	<b>-4</b>	<b>105</b>	<b>3</b>	<b>1</b>	<b>-7</b>	<b>177</b>	<b>2</b>	<b>0</b>	<b>-2</b>
<b>34</b>	<b>3</b>	<b>-3</b>	<b>5</b>	<b>106</b>	<b>-4</b>	<b>-4</b>	<b>-8</b>	<b>178</b>	<b>-4</b>	<b>-1</b>	<b>2</b>
<b>35</b>	<b>-4</b>	<b>6</b>	<b>-6</b>	<b>107</b>	<b>-1</b>	<b>2</b>	<b>3</b>	<b>179</b>	<b>-2</b>	<b>0</b>	<b>0</b>
<b>Inner</b>											
<b>36</b>	<b>-3</b>	<b>0</b>	<b>-6</b>	<b>108</b>	<b>-4</b>	<b>4</b>	<b>3</b>	<b>180</b>	<b>2</b>	<b>-6</b>	<b>-4</b>
<b>37</b>	<b>-1</b>	<b>4</b>	<b>-5</b>	<b>109</b>	<b>-2</b>	<b>-4</b>	<b>-4</b>	<b>181</b>	<b>-9</b>	<b>4</b>	<b>5</b>
<b>38</b>	<b>-2</b>	<b>-3</b>	<b>-4</b>	<b>110</b>	<b>-1</b>	<b>0</b>	<b>1</b>	<b>182</b>	<b>-1</b>	<b>-1</b>	<b>-1</b>
<b>39</b>	<b>-2</b>	<b>-1</b>	<b>-2</b>	<b>111</b>	<b>-3</b>	<b>3</b>	<b>-9</b>	<b>183</b>	<b>0</b>	<b>1</b>	<b>-4</b>
<b>40</b>	<b>-4</b>	<b>4</b>	<b>-2</b>	<b>112</b>	<b>-1</b>	<b>0</b>	<b>-4</b>	<b>184</b>	<b>1</b>	<b>-1</b>	<b>5</b>
								<b>Outer</b>			
<b>41</b>	<b>5</b>	<b>2</b>	<b>-1</b>	<b>113</b>	<b>-7</b>	<b>-1</b>	<b>-1</b>	<b>185</b>	<b>2</b>	<b>1</b>	<b>2</b>
<b>Sust</b>											
<b>42</b>	<b>-3</b>	<b>9</b>	<b>5</b>	<b>114</b>	<b>2</b>	<b>3</b>	<b>-2</b>	<b>186</b>	<b>-3</b>	<b>6</b>	<b>-2</b>
<b>43</b>	<b>8</b>	<b>-7</b>	<b>-5</b>	<b>115</b>	<b>-2</b>	<b>1</b>	<b>3</b>	<b>187</b>	<b>4</b>	<b>0</b>	<b>-2</b>
<b>Sust</b>								<b>Sust</b>			
<b>44</b>	<b>1</b>	<b>-2</b>	<b>1</b>	<b>116</b>	<b>-3</b>	<b>2</b>	<b>0</b>	<b>188</b>	<b>3</b>	<b>-2</b>	<b>4</b>
<b>45</b>	<b>-1</b>	<b>2</b>	<b>1</b>	<b>117</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>189</b>	<b>3</b>	<b>4</b>	<b>2</b>
<b>46</b>	<b>-4</b>	<b>9</b>	<b>-4</b>	<b>118</b>	<b>-2</b>	<b>3</b>	<b>7</b>	<b>190</b>	<b>0</b>	<b>4</b>	<b>-4</b>
<b>Inner</b>				<b>Outer</b>							
<b>47</b>	<b>-6</b>	<b>9</b>	<b>8</b>	<b>119</b>	<b>-7</b>	<b>-3</b>	<b>1</b>	<b>191</b>	<b>-6</b>	<b>5</b>	<b>1</b>
<b>48</b>	<b>-6</b>	<b>0</b>	<b>1</b>	<b>120</b>	<b>1</b>	<b>-2</b>	<b>-3</b>	<b>192</b>	<b>-4</b>	<b>4</b>	<b>-4</b>
<b>49</b>	<b>-3</b>	<b>1</b>	<b>-5</b>	<b>121</b>	<b>-2</b>	<b>6</b>	<b>6</b>	<b>193</b>	<b>0</b>	<b>6</b>	<b>-2</b>
								<b>Inner</b>			
<b>50</b>	<b>-6</b>	<b>2</b>	<b>8</b>	<b>122</b>	<b>2</b>	<b>0</b>	<b>-1</b>	<b>194</b>	<b>-8</b>	<b>2</b>	<b>-3</b>
<b>Outer</b>											
<b>51</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>123</b>	<b>-7</b>	<b>3</b>	<b>1</b>	<b>195</b>	<b>-1</b>	<b>1</b>	<b>-2</b>

52	-2	4	2	124	-2	-1	2	196	0	-1	2
53	-2	5	3	125	0	3	-8	197	5	-6	-4
								Sust			
54	7	3	-2	126	0	3	-4	198	-3	8	-6
Sust								Inner			
55	-1	4	-4	127	-1	-2	-3	199	-2	2	0
56	-2	1	2	128	-1	-1	4	200	-2	8	-7
								Inner			
57	2	-2	-3	129	-7	7	-7	201	5	1	-2
				Inner				Sust			
58	4	-1	-2	130	-2	-1	-2	202	6	2	1
Sust								Sust			
59	-4	5	-6	131	2	1	-8	203	5	-1	-1
								Sust			
60	-2	0	-2	132	-4	-5	1	204	0	-1	-3
61	-4	1	0	133	-4	5	-7	205	-6	0	9
								Outer			
62	-3	-3	6	134	-2	1	4	206	4	0	-2
Outer				Outer				Sust			
63	-2	9	-7	135	-2	1	6	207	-3	2	5
Inner				Outer				Outer			
64	-3	2	-1	136	2	1	-8	208	-3	-1	-3
65	-2	2	-2	137	6	9	1	209	7	3	-2
								Sust			
66	-3	-4	-3	138	4	-5	1	210	0	-4	0
				Sust							
67	4	4	-6	139	-6	10	6	211	-4	1	7
								Outer			
68	-5	6	-4	140	-1	3	3	212	7	-1	0
Inner								Sust			
69	-1	3	-1	141	6	-3	6	213	-7	1	-3
70	1	0	-4	142	0	2	1	214	0	0	0
71	0	-1	1	143	-2	-1	0	215	-1	3	0
72	-6	4	5	144	-2	3	6				
				Outer							

Outer	Outer Directed
Sust	Sustenance Driven
Inner	Inner Directed

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## **APPENDIX 6**

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**Tables to Illustrate the Relationships between Social Value Variables  
and Food Risk Perception Variables for the Total Homogeneous  
Sample of 215**

**Table 4.26** Factor 1 Technology (man made additions to food stuffs) Risks

	Social Value Group	Genetic Engineering	Artificial Preservative	Artificial Sweeteners	Artificial colours	Artificial Flavours
Contacts	S					-
Setways	S		-			
Nochange	S	-			-	-
Status	O	-				-
Mysuccess	O		-		-	
Discover	I					+
Alternat	I	+	+	+	+	+

**Table 4.27** Factor 2 High Cost as a Risk

	Social Value Group	Expensive Brand	Expensive Packaging	Paying more for Pre prepared food	Eating out	Expensive Store
Nochange	S		+			+
Setways	S	+	+			+
Appear	O		-		-	
Status	O					-
Best	O			-		-
Winning	O		-	-		-
Mysuccess	O		-			
Ahead	O		-	-		-
Discover	I		+			
World	I		+	+		+
Fewrules	I		+			
Unconve	I		+	+	+	+

**Table 4.28** Factor 3 Nutritional Risks

	Social Value Group	High Salt	High Fat	*Misleading Information
Best	O		+	
Mysuccess	O	-		
Appear	O	+		
Alternat	I			+

**Table 4.29** Factor 4 Cheap (Image Associated) Risks

	Social Value Group	Cheap Store	Image of Store	Own label	Cheap Brand
Tradition	S	+			
Nochange	S		-		
Best	O		+		+
Ahead	O	+	+		+
Winning	O		+		+
World	I				-

**Table 4.30** Factor 5 Ecological ( conservationist / environmental) Risks

	<b>Social Value Group</b>	Pesticides / Fertilisers	Non / recycle Packaging	Controversial operations
Contacts	<b>S</b>		-	-
Setways	<b>S</b>		-	
Trad	<b>S</b>			-
Nochange	<b>S</b>		-	-
Best	<b>O</b>	-		-
Appear	<b>O</b>		-	-
Status	<b>O</b>	-		
Voiceops	<b>I</b>		+	+
Discover	<b>I</b>	+	+	+
Unconve	<b>I</b>		+	
Alternat	<b>I</b>		+	+

**Table 4.31** Factor 6/7 Unfamiliarity as Risk

	<b>Social Value Group</b>	Different Super	Non Organic	Unfamiliar ingredients	Different Brand
Holdlife	<b>S</b>				+
Trad	<b>S</b>			+	+
Setways	<b>S</b>			+	+
Best	<b>S</b>	+			
Nochange	<b>S</b>			+	
Ahead	<b>O</b>	+			+
Appear	<b>O</b>		-		
World	<b>I</b>	-			
Altern	<b>I</b>		+		
Discover	<b>I</b>		+		

## Factor 8 BSE Risk

Positive correlation were identified between BSE and both Inner directed value variable 'discover' and between Sustenance driven value variables 'holdlife' and 'contacts' however these correlations were not significant.

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## **APPENDIX 7**

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**Tables to Illustrate the Relationships between Social Value Variables  
and Risk Relieving Strategy Variables for the Total Homogeneous  
Sample of 215**

**Table 4.39** Factor 1 Societal Acceptance

	<b>Social Value Group</b>	Advertised	Someone similar to you approves	Family approves	Celebrity approves
Secure	<b>S</b>	+			
Setways	<b>S</b>	+	+	+	+
Nochange	<b>S</b>	+	+	+	
Best	<b>O</b>	+			
Winning	<b>O</b>	+			
Status	<b>O</b>				+
Ahead	<b>O</b>	+		+	+
Mysuccess	<b>O</b>		+		
Appear	<b>O</b>			+	+
Voiceops	<b>I</b>			-	
Alternat	<b>I</b>	-		-	-

**Table 4.40** Factor 2 Low Cost

	<b>Social Value Group</b>	Cheaper Store	Money back Guarantee	Cheaper Brand
Setways	<b>S</b>			+
Secure	<b>S</b>	+	+	
Fewrules	<b>S</b>			-
Best	<b>O</b>		+	+

**Table 4.41 Factor 3 Branding**

	<b>Social Value Group</b>	Free Sample	Familiar brand	Brand reputation	*Comprehensive labelling
Setways	<b>S</b>		+		
Secure	<b>S</b>		+		-
Best	<b>O</b>			+	
Winning	<b>O</b>			+	
Ahead	<b>O</b>			+	
Appear	<b>O</b>	+	+	+	
Alternat	<b>I</b>	-	-		+
World	<b>I</b>			-	
Fewrules	<b>I</b>	+			

**Table 4.42 Factor 4 High Cost (Image)**

	<b>Social Value Group</b>	Expensive Store	Store Image	Expensive Brand
Secure	<b>S</b>		+	
Setways	<b>S</b>		+	
Contacts	<b>S</b>	-		-
Status	<b>O</b>			+
Ahead	<b>O</b>	+	+	+
Winning	<b>O</b>	+	+	+
Best	<b>O</b>	+	+	+
Appear	<b>O</b>	+	+	
World	<b>I</b>		-	
Alternat	<b>I</b>	-	-	-

**Table 4.43 Factor 5 Authoritarian Reassurance**

	<b>Social Value Group</b>	Government Approval	Independent Approval	Expert Approval
Contacts	<b>S</b>		-	
Setways	<b>S</b>	+		
Best	<b>O</b>	+		
Ahead	<b>O</b>	+		

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# APPENDIX 8

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## Sample for Qualitative Interviews

Interviewee	Sample	Id Code	Interview One Social Values	Interview Two Food Risk Perception	Interview Three Food Risk Perception and Risk Relieving Strategies
DP	Pilot	S1	*	*	
JW	Pilot	S2	*	*	
LB	Pilot	S3	*	*	
JM	Main	S10			*
DC	Main	S11			*
CJ	Main	S12			*
SW	Main	S13			*
RJ	Main	S14			*
MM	Main	S15			*
LP	Pilot	I1	*	*	
AT	Pilot	I2	*	*	
CW	Pilot	I3	*	*	
LK	Main	I10			*
JF	Main	I11			*
HP	Main	I12			*
VM	Main	I13			*
VS	Pilot	O1	*	*	
ND	Pilot	O2	*	*	
SH	Pilot	O3	*	*	
CS	Main	O10			*
AR	Main	O11			*
SF	Main	O12			*
AK	Main	O13			*
TB	Pilot	ND1	*		
SM	Pilot	ND2	*		
RB	Pilot	ND3	*		
VD	Pilot	ND4	*		
PB	Pilot	ND5	*		
DM	Pilot	ND6	*		
JH	Pilot	ND7	*		
LD	Pilot	ND8	*		
LC	Pilot	MD9	*		
PH	Pilot	ND10	*		
TOTAL			19	9	14

\* identified that the interviewee was interviewed at this stage

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## **APPENDIX 9**

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### **Qualitative Interview Transcripts : Selection of Quotes**

# Interview One

Question area 1 - Family; Question area 2 - Work and Leisure; Question area 3 - Attitudes toward Authority; Question area 4 - Organisational Structures; Question area 5 - Improve Lifestyle; Question area 6 - Feel Good

Interviewee	Sample	Id Code	Quest area 1	Quest area 2	Quest area 3	Quest area 4	Quest area 5	Quest area 6
DP	Pilot	S1	0	*	*	*	*	*
JW	Pilot	S2	*	*	*	*		
LB	Pilot	S3	*	*	*	*	*	*
JM	Main	S10						
DC	Main	S11						
CJ	Main	S12						
SW	Main	S13						
RJ	Main	S14						
MM	Main	S15						
LP	Pilot	I1	*	*	*	*		*
AT	Pilot	I2	*	*	*	*	*	*
CW	Pilot	I3	*	*	*	*	*	*
LK	Main	I10						
JF	Main	I11						
HP	Main	I12						
VM	Main	I13						
VS	Pilot	O1	*	*	*	*	*	*
ND	Pilot	O2	*	*	*	*		
SH	Pilot	O3	*	*	*	*		
CS	Main	O10						
AR	Main	O11						
SF	Main	O12						
AK	Main	O13						

\* indicates that a response was made in this area and as such included in the analysis

## Interview Two

Question area 1 - Technology; Question area 2 - High Cost; Question area 3 - Nutrition;  
 Question area 4 - Misleading Information; Question area 5 - Cheap / Poor Image;  
 Question area 6 - Ecological / ethical; Question area 7 - Unfamiliar; Question area 8 -  
 Non Organic

Interviewee	Sample	Id Code	Quest area 1	Quest area 2	Quest area 3	Quest area 4	Quest area 5	Quest area 6	Quest area 7	Quest area 8
JW	Pilot	S2	*	*	*	*	*			*
JM	Main	S10	*	*			*	*		
DC	Main	S11	*	*	*		*	*	*	*
CJ	Main	S12		*	*	*	*	*	*	*
SW	Main	S13	*	*			*	*	*	*
RJ	Main	S14	*	*	*	*	*	*	*	
MM	Main	S15	*	*			*	*	*	*
AT	Pilot	I2	*	*	*	*		*		
CW	Pilot	I3	*		*	*		*	*	*
LK	Main	I10	*			*	*	*	*	
JF	Main	I11	*			*	*	*	*	*
HP	Main	I12	*	*		*	*	*	*	*
VM	Main	I13	*		*		*	*	*	*
VS	Pilot	O1	*				*	*	*	
CS	Main	O10		*						
AR	Main	O11	*	*	*		*	*	*	*
SF	Main	O12		*	*			*	*	*
AK	Main	O13	*	*		*	*	*		*

\* indicates that a response was made in this area and as such included in the analysis

## Interview Three

Question area 1 - Societal acceptance / endorsement; Question area 2 - Low Cost; Question area 3 - Branding; Question area 4 - High Cost; Question area 5 - Authoritarian reassurance

Interviewee	Sample	Id Code	Quest area 1	Quest area 2	Quest area 3	Quest area 4	Quest area 5
JM	Main	S10		*	*		*
DC	Main	S11		*	*		
CJ	Main	S12	*		*		*
SW	Main	S13	*	*	*		*
RJ	Main	S14	*	*	*		*
MM	Main	S15	*		*		*
LK	Main	I10	*		*		*
JF	Main	I11	*	*	*		*
HP	Main	I12					
VM	Main	I13			*		*
CS	Main	O10	*		*	*	*
AR	Main	O11	*		*	*	*
SF	Main	O12	*			*	*
AK	Main	O13	*		*	*	*

\* indicates that a response was made in this area and as such included in the analysis