



Trust in Workplace Canteens – using Germany and the UK as Market Examples

Sarah Price

A thesis submitted in partial fulfillment of the
requirements of Bournemouth University for the
degree of Doctor of Philosophy

October 2016

Copyright Statement:

This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognise that its copyright rests with the author and due acknowledgement must always be made of the use of any material contained in, or derived from, this thesis.

Trust in Workplace Canteens – Using Germany and the UK as a Market Example

Sarah Price

Abstract

It is estimated, that most employees eat one or more meals per day whilst they are at work, which is forming an important element of their overall diet. However, consumers struggle to make an informed dish decision due to a lack of information provided. Additionally, past food scares in Germany and the UK have created distrust and interest in food information. This study is identifying what is important to consumers, indicating their information needs and establishes the format that is most appropriate for the delivery of food information in workplace canteens in Germany and the UK. Providing consumers with enhanced food information can strengthen the relationship between consumer and canteen operator as well as establish trust in the food served.

A mixed methodological, sequential approach was employed. Four focus groups were used to inform the design of a questionnaire (n=317), which tested criteria of importance and types of information provision that are relevant when making food choice in a workplace setting using Best-worst scaling. Through semi-structured interviews (n=10) canteen operators' views on meeting customer needs and establishing trust in the food served were identified.

Informational criteria of importance have been identified whereby, Nutrition, Value for Money and Naturalness are key elements that consumers require to make a decision about dish selection. Consumers fall into different segments; Health Conscious, Socially Responsible and Value Driven and hence rate the importance of certain informational criteria differently impacting on dish selection. Traffic Light Labelling, Information Boxes and Quality Assurance have been shown to be the most favourable way of receiving food information. Consumers align to different segments; Tech-savvy, Heuristic Processors, Brand Orientated and Systematic Processors, hence various communication channels can be explored to most effectively target consumers. This study has provided an understanding of consumers' information requirements thus enabling canteen operators to be more competitive. The provision of food information that targets different consumer segments can demonstrate shared customers' values and consequently, evidence operators' commitment towards a relationship that is based on transparency and trust.

Table of Contents

Copyright Statement		ii
Table of Content		v
List of Figures		viii
List of Tables		x
Acknowledgements		xi
Declaration		xii
Chapter 1	Introduction	
1.1	Rationale for the Research	13
1.2	Research Aims and Objectives	17
1.3	Structure of the Thesis	18
Chapter 2	Trust and Food	
2.1	Food and Trust	20
2.2	Trust as an Abstract Concept	21
2.3	Trust: Enduring of Vulnerable?	23
2.4	Reflexive Trust	24
2.5	Trust in Food Survey	26
2.6	Different Cultural and Institutional Food Related Trust Theories	26
2.6.1	Knowledge Deficit Model	32
2.6.2	Consumer Sovereignty Theories	33
2.7	The Active Consumer	34
2.8	Socio-demographic Differences of Trust in Food	36
2.9	Trust in Actors of the Food Chain	36
2.9.1	Trust in Agriculture and Retail	37
2.10	Eating Out	39
2.11	Dining Out Trends	39
2.12	Reasons for Dining Out	40
2.13	Demographic Segmentation in Foodservice	41
2.13.1	Baby Boomers	42
2.13.2	Generation X	42
2.13.3	Generation Y	42
2.14	Socio-economic Status	43
2.15.	Diet and Disease	43
2.16	Business and Industry Foodservice	44
2.17	The Workplace Canteen	48
2.18	Consumer Need for Information	51
Chapter 3	Information Quality and Ways of Providing Food Information	
3.1	Information Quality	52
3.2	Processing of Information	53
3.3	Consumer Right to Information	56
3.4	The EU Regulation on the Provision of Food Information to Consumers	57
3.5	Different Ways of Providing Food Information to Consumers	59
3.5.1	Nutritional Labelling	59
3.5.2	Nutritional Labelling among Different Population Segments	59
3.5.3	Menu Labelling	60
3.5.4	Different Ways of Delivering Nutritional Information	61

3.5.4.1	Nutrition Information Displayed by Weights or Percentage Guideline Daily Allowance	61
3.5.4.2	Traffic Light Labelling	62
3.5.4.3	Nutrition Information Through the Use of Symbols	63
3.6	Quality Assurance as Means of Providing Food Information	65
3.6.1	Quality Assurance as a Proxy for Quality	66
3.6.2	Cost of Quality Assurance	68
3.6.3	Quality Assurance in the Meat Sector	68
3.6.4	The Plethora of Quality Assurance Schemes	69
3.6.5	Quality Assurance in the Eating Out Sector	72
3.7	Brands as an Indicator for Quality	73
3.7.1	Brand Associations as a Signal for Quality Attributes	74
3.7.2	The use of Brands in Workplace Canteens	75
3.8	Food Information provided through Electronic Communication	76
3.8.1	Applications used in a Canteen Setting	77
3.8.2	Challenges of Alternative Information Provision Systems	77
3.8.3	QR Codes used to Provide Food Information	78
3.9	Relationship Marketing as a Way to bridge the Gap between Industry and Consumer	79
3.10	Summary and Conceptual Framework	82
Chapter 4	Methodology	
4.1	Research Approach	84
4.2	Research Design	85
4.2.1	Data Analysis: Triangulation and Thematic Synthesis	90
4.3	Empirical Study 1 – Focus Groups	91
4.3.1	Focus Groups	91
4.3.2	Data Analysis	92
4.4	Empirical Study 2 – Questionnaire	94
4.4.1	Best-Worst Scaling	95
4.4.2	Framework and Design of the Experiment	97
4.4.3	Structure of the Questionnaire	98
4.4.4	Translation of the Survey	104
4.4.5	Pilot Testing the Questionnaire	104
4.4.6	Questionnaire Administration	105
4.4.7	Data Analysis	106
4.4.7.1	Latent Class Cluster Analysis	107
4.4.8	Validity, Reliability and Generalisability	109
4.5	Empirical Study 3 – Stakeholder Interviews	109
4.5.1	Sampling Approach and Sample Size	110
4.5.2	Pilot Interviews	111
4.5.3	Administration of the Interviews	111
4.5.4	Thematic Approach to Data Analysis	112
4.5.5	Quality of the Data Analysis	113
4.6	Evaluation of the Methodological and Analytical Approach	114
4.6.1	Qualitative Data Approach: Elements of Construct Validation	114
4.6.2	Quantitative Data Approach	117
4.6.3	Mixed Methods Approach: Elements of Construct Validity	118
4.7	Ethical Considerations	122
Chapter 5	Results	
5.1	Empirical Study 1	123
5.1.1	Preceding Factors for Making Food Choices	123
5.1.2	Factors Directly Affecting Food Choice	125
5.1.3	Food Information	130

5.1.4	Similarities and Differences between the UK and Germany	132
5.2	Empirical Study 2	135
5.3	Empirical Study 3	150
5.3.1	Perception of Criteria of Importance	150
5.3.2	Customer Relationship	158
5.3.3	Bad Image and Consumer Perception of the Canteen	159
5.3.4	The Menu as a Source of Information	160
5.3.5	Provision of Information	161
5.3.6	Barriers to Meeting Consumers' Informational Requirements	164
5.3.7	Enablers of Meeting Consumer Demands and Increasing Consumer Trust	167
Chapter 6	Discussion	
6.1	Model of the Role Information Provision based on Consumer Criteria of Importance can have on the Relationship between Consumer and Operator that Fosters Trust	175
6.2	Preceding Factors to Making use of Workplace Canteens	178
6.3	Food Criteria of Importance	179
6.4	Preferred Food Information Formats	183
6.5	Information currently provided in Workplace Canteens	186
6.6	Barriers to Meeting Customer Requirements	189
6.7	Enablers of Meeting Customer Requirements	192
6.8	Recommendations for Practice	195
Chapter 7	Conclusions, Limitations and Recommendations for Further Study	
7.1	Revisiting the Research Questions, Aim of the Study and Methods Used	198
7.2	Conclusions	200
7.3	Recommendations for Workplace Canteens	202
7.4	The Contributions of this Study	202
7.4.1	Contribution to Knowledge	203
7.4.2	Implications for Practice	203
7.4.3	Implications for Policy	204
7.5	Limitations	204
7.6	Recommendations for Further Study	205
7.7	Critical Reflection of the Researcher's Journey	206
Appendices		208
References		223

List of Figures

Figure 2.1	Trust in Faceless in Faceless Systems and Trust in Systems relying on Facework	22
Figure 2.2	Trust in the Food System according to Luhmann's Understanding of Trust	22
Figure 2.3	Factors influencing Trust	31
Figure 2.4	Food Values influencing Consumers' Food Choice	35
Figure 2.5	Wave of Consumer Trust Placed in Different Actors of the Food System	38
Figure 2.6	The Generations	41
Figure 2.7	Public and Private Sector Foodservice	46
Figure 3.1	Goals of Consumer Orientated Communication for Food, Enabling and Disabling Factors	54
Figure 3.2	The Processing of Food Information	55
Figure 3.3	Nutrition Information Box	62
Figure 3.4	Examples of Traffic Light Labelling	63
Figure 3.5	Swedish Keyhole Symbol and the American Hear-Check Mark	64
Figure 3.6	The Concept of Providing Food Information throughout different Production Stages	78
Figure 3.7	The Conceptual Dimensions of Relationship Marketing	80
Figure 3.8	Application of the Commitment Trust Theory of Relationship Marketing to the Relationship between Contract Caterer and Canteen Guest	81
Figure 3.9	Conceptual Framework of the Role of Meaningful Information Provision which Relates to Trust in Workplace Canteens	83
Figure 4.1	Incorporation of the Multiple Levels of the Food System in the Study	86
Figure 4.2	Stages of the Research Project	88
Figure 4.3	Explanatory Framework for Analysis	90
Figure 4.4	Selection of Criteria that have been included in the Questionnaire	94
Figure 4.5	Information that can be Drawn from a Four-Item Choice Set	95
Figure 4.6	Example of One Choice Set Shown to Participants in the Survey	98
Figure 4.7	Data Linkages and Integration for the Sequential Mixed Methods Design	119
Figure 5.1	Themes and Subthemes of the Preceding Factors influencing the use of a Canteen	124
Figure 5.2	Themes and Subthemes summarising Criteria directly affecting Food Choice	126
Figure 5.3	Themes and Subthemes summarising Consumer Interest in Food Information	130
Figure 5.4	Preceding and Direct Criteria influencing Food Choice in Workplace Canteens	134
Figure 5.5	Overview of the Different Clusters	143
Figure 5.6	Illustration of the Different Clusters	149
Figure 5.7	Themes and Subthemes summarising Predetermining Criteria of Importance as seen by the Operators	151
Figure 5.8	General Criteria of Importance influencing Dish Selection in Workplace Canteens as seen by the Operators	154

Figure 5.9	Comparison of Similarities and Differences of Criteria of Importance between Consumers and Workplace Canteen Operators	164
Figure 5.11	Example of Dish Information provided through a Smartphone Application	172
Figure 5.12	Themes identified for the Provision of Food	173
Figure 6.1	Model of the Role Information Provision based on Consumer Criteria of Importance can have on the Relationship between Consumer and Operator that fosters Trust	177

List of Tables

Table 2.1	Comparison of Luhmann’s and Bildtgart’s Trust Theories	25
Table 2.2	Different Theoretical Approaches to Trust in Food	30
Table 3.1	Regulation (EU) 1169/2011 on the Provision of Food Information to Consumers	58
Table 3.2	Typology of Goods based on Information Economics	66
Table 3.3	Comparison of Organic Certification Labels Well-known to Consumers and the EU Organic Logo	71
Table 3.4	Six Levels of Brand Meaning	74
Table 4.1	Research Methods and Research Questions	90
Table 4.2	Demographics of Focus Group Participants	92
Table 4.3	Comparison of Different Methods used to Understand Consumer Preferences in Food Related Research	96
Table 4.4	Different Ways of Providing Food Information to Consumers	100
Table 5.1	Similarities and Differences between Factors affecting Food Choice in Germany and the UK	132
Table 5.2	Socio-demographic Characteristics of Sample	136
Table 5.3	Average Best-worst Utility Scores for Criteria of Importance	137
Table 5.4	Penalty Weight of AIC and BIC	138
Table 5.5	Latent Class Cluster Models fitted to Individual-level Best-worst Scores of the Eight Criteria of Importance	138
Table 5.6	Latent Class Cluster Parameter Values for Food Criteria of Importance	139
Table 5.7	Average Best-worst Utility Scores for Food Information Provision	144
Table 5.8	Latent Class Cluster Models fitted to Individual-level Best-worst Scores of the Six Ways of Providing Food Information	145
Table 5.9	Latent Class Cluster Parameter Values for Food Information Provision	146
Table 5.10	Characteristics of Canteen Operators	150
Table 5.11	Desirable Functions of a Smartphone Application	170

Acknowledgements

The completion of this thesis has involved many people. I would like to thank my supervisors, Professor Heather Hartwell, Professor Ann Hemingway, Dr. Chris Chapleo and Dr. Giampaolo Viglia for their wisdom, support and valuable feedback during this research project. I would also like to thank Solutions for Chefs who have supported this project. Furthermore, I would like to thank Sawtooth Software who, with their grant of their software, supported my research.

My appreciation also goes to all my colleagues on the FoodSMART project, who have assisted me in my PhD and provided feedback along the way.

Finally, I would like to thank my friends, family and colleagues who have supported me throughout my PhD journey.

Declaration

To date, the following journal articles have been published from data collected as part of this PhD study:

- Price, S., Hartwell, H., Hemingway, A. and Chapleo, C., 2016. Workplace foodservice; perception of quality and trust. *Appetite*, 97, 169-175.
- Price, S., Viglia, G., Hartwell, H., Hemingway, A., Chapleo, C., Appleton, K., Saulais, L., Mavridis, I. and Perez-Cueto, F. J. A., 2016. What are we eating? Consumer information requirement within a workplace canteen. *Food Quality and Preference*, 53, 39-46

Research findings have been presented at a number of international conferences

- Price, S. 2016. Criteria of Importance influencing food choice in workplace canteens. *Menu – The Journal of Food and Hospitality Research*, 5, 27-32.
- Price, S. 2016. FoodSMART – an international tool for wellbeing? *Social and Cross-cultural Factors of Culinary and Eating Behaviours*, Institut Paul Bocuse, 20 April 2016.
- Price, S. 2016. FoodSMART – an international tool for wellbeing? *Global Festival of Learning Malaysia*, Sunway University, 29 June 2016.
- Price, S., Appleton, K. M., Bray, J., Giboreau, A., Perez-Cueto, F. J. A., Mavridis, I., Ronge, M. and Hartwell, H., 2016. Important information for the selection of workplace canteen meals: A consumer segmentation study. *Proceedings of the Nutrition Society*, 75 (OCE3), 1-1.
- Price, S., Appleton, K. M., Bray, J., Giboreau, A., Perez-Cueto, F. J. A., Mavridis, I., Ronge, M. and Hartwell, H., 2016. Reasons for consuming in a workplace canteen, factors affecting meal choice, and the perceived value of additional information on workplace canteen meals. *Proceedings of the Nutrition Society*, 75 (OCE3), 1-1.
- Price, S., Hartwell, H., Viglia, G., Perez-Cueto, A., Giboreau, A. and Mavridis, I., FoodSMART – a tool for wellbeing?, *Proceedings of EuroCHRIE 2016 Conference*, 26-28 October, 2016, Budapest, Hungary
- Price, S., Hartwell, H., Hemingway, A. and Chapleo, C. 2015. Values influencing food choice in workplace canteens. *In: Feldman, C. and Murray, D., eds. International Conference on Culinary Arts And Sciences*. Montclair 3-5 June 2015. Montclair: Montclair State University.

Chapter 1

Introduction

1.1 Rationale for the Research

Eating out for many people has become an integral part of modern life; one in six meals are estimated to be consumed out of the home (Benelam 2009; Mikkelsen 2011). Factors leading to this rise in eating out are increased disposable income, changes in traditional family structure and greater availability of food items (Ali and Nath 2013). Furthermore, a lack of food preparation knowledge and cooking skills has been suggested to contribute to the decrease of traditional meals consumed at home (Soliah et al. 2012). One setting where food is consumed on a regular basis is the workplace. For people who habitually eat in their workplace canteen, the food served forms an important part of the overall diet. It is here, where people spend an extensive time of their waking hours and consume a considerable amount of calories (Department of Health 2005). The workplace can be a supportive and influential factor in the promotion of a healthy diet. A healthy and vital workforce is an asset to any organisation and initiatives within this environment reflect health promotion strategies advocated by the World Health Organisation (2004). The European workforce is increasingly diverse in terms of gender, ethnicity and culture; it is also increasingly older, which implies a greater potential and prevalence of chronic disease (Zwetsloot et al. 2010). Health and wellbeing are key topics in the debate on improving the lives of individuals in society and are directly linked to labour force participation, productivity and sustainability (Eurofound 2013). Health and wellbeing at work are key elements of the overall Europe 2020 strategy for growth, competitiveness and sustainable development (European Commission 2010). A healthy economy depends on a healthy population. Without this, employers lose out on worker productivity and citizens are deprived of potential longevity and quality of life. The workplace could be a central venue for influencing dietary behaviour and could be instrumental in reducing employee's risk of developing chronic disease (Quintiliani et al. 2010).

With this expanding trend of eating out, there is also more consumer interest to know the provenance of ingredients (Banterle et al. 2012). Arguably, it is a fundamental human right to know what we are eating in environments where food is served (Mazurkiewicz-Pizo and Pachuca-Smulaska 2012). This interest has also arisen through past food scares and malpractices in food production which have affected the consumer trust in the food they eat (Coveney 2008). Trust is an important component of health and wellbeing through its impact on food choice (Coveney 2008). Moreover, trust in the food we eat and in food providers is

important as the consumer himself has no control over the production (Arnott 2007). Consumers have experienced a number of problems in the food chain, affecting the safety of food or misleading them about the true ingredients and their origin. Consequently, this has led to awareness amongst consumers who have an increased interest in more information about provenance, production methods and nutritional profile of the food, that they eat (Schiefer et al. 2013).

Workplace canteens are facing several challenges including changing consumer demands, increasing food prices and being blamed as responsible for the high obesity levels of the population (Edwards 2013). Consumers' food purchasing habits have changed in a retail setting and when eating out in outlets of the private sector leading to pressure on workplace canteens to keep up with changed consumer demands and expectations (Edwards 2013). Current trends in the foodservice industry show that consumers put a high emphasis on local and traditional food (Bugge and Lavik 2010). Furthermore, consumers have a high curiosity for foreign cuisine, especially ethnic foods (Roseman et al. 2013). This rising interest in ethnic cuisine is primarily caused by a more diverse population (Roseman et al 2013). The UK is one of the most multi-cultural countries in the world (Ojinnaka 2007). Therefore, there is an increased demand for ethnic and religious foods; ethnic foods describe many varieties of food products available to various members of the community such as Chinese or Indian food (Ojinnaka 2007). Additionally, large consumer segments are becoming more socially responsible with high interests in eco-friendly and ethical business practices, sustainability, fair treatment of animals and reduction of carbon footprint (Fleming et al. 2008b). However, these trends are not currently reflected in workplace canteens and there is increased pressure to cater for these consumer demands (Morgan and Sonnino 2008).

This PhD thesis investigates the consumer information needs in Germany and the UK. From a legislative perspective, the provision of food information is regulated and harmonised under EU legislation with the introduction of the EU Regulation 1169/2011 requiring both retail and foodservice outlets to provide their customers with information in a specific format (D'Elia et al. 2011). In Germany and the UK, consumers have shown different trust levels in regards to food which are influenced by differences in consumers' understanding of responsibilities between consumer, government and actors of the food chain (Kjaernes et al. 2007). Hereby, German consumers have shown less trust in food systems compared to the consumers in the UK. Both countries have a longstanding history in providing food at work. Germany and the UK are growing economies that show differences in levels of trust, which can be related to the way the food legislation is administered. The provision of food is legislated both on a

European level as well as per country and therefore, is not completely harmonised (Food Standards Agency 2010). Further, there are differences between countries in regards to how information is currently displayed with traffic light labelling being a commonly used way to display information in the UK (Hawley et al. 2013). In Germany, however, traffic light labelling is not commonly used to display food information. However, there has been debate around its use in the media (Van Herpen et al. 2012). Therefore, a harmonisation of food legislation can help to reduce these differences in trust. Nevertheless, this thesis further examines consumers' preferred format of receiving food information in the setting of workplace canteens in both countries. The behaviour of German and UK consumers in regards to key informational criteria that affect food choice such as a preference of organic food products has been described to be divergent. German consumers are shown to be exceptionally aware of both nutrition and environmental issues, which in previous studies has also been associated with a general distrust in society, industry and arising technology (Thompson et al. 2004). Contrastingly, although UK consumers do put a high emphasis on organic food products, motivation is rooted in an interest in purchasing healthier food, rather than taking into account aspects such as the environmental impact of food production or animal welfare (Thompson et al. 2004). Consequently, differences in the consumer behaviour in Germany and the UK can be rooted in different mindsets that pose issues for those contract caterers seeking to take a pan-European approach towards the communication of food information. Findings of this study will help contract caterers to establish communication with their customers to demonstrate transparency and trustworthiness. Further, this study will establish, whether this can be done through a regional approach catering for the consumers of both countries.

Being German and bilingual, the researcher was able to get a unique insight into consumer demands and information needs in both countries. This enabled the researcher to extend the study to an additional country and use both Germany and the UK as a market example.

Furthermore, consumers have not only become more interested in the provenance of their food, they are also more actively looking for information about their food. Consumers who look for regional food put a high emphasis on fresh food and enjoy a more personalised service when buying local food (Miroso and Lawson 2012). However, in workplace canteens, there is currently very little information provided despite growing consumer interest and demand for more transparency (Mackison et al. 2009; Watson 2013). Although labelling of nutrients and provenance is provided to the consumer on products in a retail setting, there is a lack of provision of this information in an out of home setting, making it harder for the consumer to make choices (Bode 2012).

Moreover, food systems have evolved to be more complex and although the end consumer has a certain degree of knowledge, information is vast and difficult to interpret (Bildtgaard 2008). There is a lack of research that aims to provide an understanding of ways and the type of information that can be provided to the consumer in a meaningful way. This is of great importance considering that consumers feel that food offered does not meet their needs and expectations, and where they have information, there is distrust in food systems generally (Holm 2003; Coveney et al. 2012).

More consumers would like greater transparency and have the right to be provided with such information (Mazurkiewicz-Pizo and Pachuca-Smulska 2012). The current interest is topical in regards to the introduction of the EU regulation 1169/2011, where in the case of a food product being manufactured in more than one country, the country of origin indicated to the consumer is the place the product underwent its last important manufacturing step (D'Elia et al. 2011). Although consumer protection was one of the aims of creating this regulation, implementation of the regulation can mislead the consumer in regards to the true origin of their food (Mazurkiewicz-Pizo and Pachuca-Smulska 2012). In addition, the labelling of allergens changed under this aforementioned regulation and was implemented by food manufacturers and caterers in December 2014 (Banterle et al. 2012). Correspondingly, information on allergens have to be available to the consumer for non-pre-packed foods through either labelling on the menu or availability on request (Watson 2013).

Consumers are generally shown to spend little effort when making everyday purchases such as food, especially as this is influenced by routine. Furthermore, the low involvement consumers demonstrate in making these decisions is also shaped by situational and enduring reasons (Thøgersen et al. 2012b). Product involvement reflects consumer interest in different product categories (Samson 2010). Moreover, it is influenced by the relevance of the product to the consumer, which is driven by their needs and interests (Xue et al. 2010). Therefore, certain consumers can be more involved in the choice of their food when for example they have a motive which leads them to take greater care in their food selection. Consumers concerned with animal rights for example, have a greater involvement in their food choice as they are actively looking for information in regards to animal welfare (Thøgersen et al. 2012b). Furthermore, female consumers who are older with children in their household are often described as the typical consumer of organic food, as they intend to provide their children with perceived better food (Hughner et al. 2007). Large segments of consumers are concerned about the environment which influences their food choices which is reflected in the large availability of food products appealing to this consumer need (Vermeir and Verbeke 2006).

Additionally, consumers who place a high involvement into their food choice increase their demand for further product information (Thøgersen et al. 2012b). Understanding key drivers of food choice and motivations underlying those choices is important for food operators in order to align their service with consumer preferences across different market segments (Hollebeek et al. 2007).

Providing the consumer with greater information can increase trust in the products and the canteen operator and can strengthen the relationship between the food industry and end user (Menozzi et al. 2015). In order to increase confidence in the food system, arguments from both sides, consumer and industry need to be considered (Korthals 2001).

Although some research studies have focused on the importance of adequate nutrition information to consumers, the focus of these studies has been the retail sector and knowledge about consumer information needs in workplace canteens especially is lacking (Carbone and Zoellner 2012). Furthermore, consumer interests go beyond the search for nutritional information with curiosity for information on other quality attributes and origin of ingredients (Lusk and Briggeman 2009). Therefore, this study is addressing a gap in the literature firstly understanding what is important to consumers both in Germany and the UK, indicating their information needs and secondly, identifying the format that is most appropriate for the delivery of food information in workplace canteens.

1.2 Research Aims and Objectives

Therefore, the aim of this study is to critically evaluate key informational criteria of importance that consumers attach to food served and how these can be communicated to establish trust in workplace canteens.

This aim will be achieved by the following objectives:

1. To critically interrogate the literature about informational criteria that consumers feel are important in relation to food served with different concepts of trust (Luhmann 1979, Giddens 1991, Morgan and Hunt 1994) used as theoretical underpinnings.
2. To identify key informational needs of consumers when eating in a workplace canteen through the use of qualitative and quantitative research methods in Germany and the UK.

3. To empirically evaluate the acceptable style of delivery of this information in both countries, identifying the most effective style of portraying this information.
4. To assess canteen operators' views on criteria of importance and consumer needs including ways of increasing trust in workplace canteens.
5. To explore a relationship between consumers' trust in eating in their worksite canteen, and the value that they put on key informational criteria.

1.3 Structure of the Thesis

This thesis continues with the following chapters:

Chapter 2

This chapter presents a critical evaluation of the literature that relates to trends in eating out in both private foodservice and workplace canteens in Germany and the UK. It also focuses on different trust theories which are discussed in a food context as well as analysing the role of the consumer in the food system.

Chapter 3

The literature on the introduction of new European legislation concerning the provision of food information has been evaluated. Additionally, different formats and ways of providing food information to consumers in a retail sector but also on restaurant menus are critically discussed. Therefore, this chapter explores the role nutrition labelling, quality assurance; branding and ICT solutions such as smartphone applications can play in providing food information to consumers.

Chapter 4

This chapter provides an overview of the research design of the sequential mixed methods research process and data collection. The methodology for each empirical study is presented in the order of the three studies and the theoretical considerations that were related to each stage of data collection discussed.

Chapter 5

Results from the analysis of the data collected for the three empirical studies are presented and summarised.

Chapter 6

This Chapter draws on findings from both primary and secondary research in order to synthesise current issues that are relevant to the aim of this study. A theoretical model of the

role meaningful information provision based on key consumer criteria of importance can have on the relationship between consumer and operator that fosters trust is developed and justified.

Chapter 7

This chapter presents an evaluation of the research process undertaken for this study. It considers the validity and legitimization of the theoretical, methodological and analytical approaches adopted. A critical reflection of the researcher's journey through the project is imparted.

Chapter 8

To complete this research process, findings of the research are drawn together and conclusions with respect to food served in workplace canteens are formulated. Furthermore, recommendations are made and limitations of this research are acknowledged.

Chapter 2

Trust and Food

Introduction

The purpose of this chapter is to critically review the literature on eating away from home in both private foodservice and workplace canteens, identifying issues relating to consumer trust in food. Therefore, prevalence and trends of eating out are discussed including the effect this has on the development of non-communicable disease. Workplace canteens and their function of providing balanced meals are analysed with special emphasis on consumer demands are explored. Different trust theories are evaluated and discussed in a food context including the knowledge deficit model and the idea of consumer sovereignty. The role of the consumer in the food system is also analysed.

2.1 Food and Trust

Food means more to people than the mere provision of essential nutrients; it is also a consumer and lifestyle item (Bildtgaard 2008). Eating is used to express lifestyle and an integral part of culture (Atkins and Bowler 2001). Food systems have evolved to be more complex and although the end consumer has a certain degree of knowledge, information is vast and difficult to interpret (Bildtgaard 2008). Moreover, food production is anonymised and the consumer alienated from the production, therefore, it is increasingly difficult for the consumer to judge the quality of food through traditionally used methods such as personal interaction or sensory judgements (Kjærnes 2012). Additionally, there is an increasing responsibility of the consumer to take charge of their diets and make decisions about the food they are eating (Bildtgaard 2008). Consumers often have to identify and chose food using alternatives to sensory judgements such as labelling or branding (Kjærnes 2012). Considering the difficulty consumers have in establishing the quality of food which often is defined through credence attributes that are difficult for the consumer to trace before or after purchase, trust plays an influential part in food choice (Rampl et al. 2012). At the same time, consumers are time constrained and consumption orientated which highlights the need of the consumer to trust actors of the food chain to produce food that is meeting their needs and expectations (Arnott 2007). Being able to trust is an important factor of wellbeing and especially being able to trust the food consumed is part of perceived quality of life (Berg 2004).

On a more abstract than personal level, trust in food is important for the stability of the food sector and assurance of food supply (Fritz and Fischer 2007). Although consumers have less control over the food system, food provision has become more secure and consistent (Kjærnes 2012). Trust in food can have an impact on the populations health and therefore, it is critical that the public can trust their food supply and governing agencies (Papadopoulos et al. 2012). Furthermore, a lack of trust in the food system can have far reaching economic implications through the avoidance of food products from certain countries which affects the export of goods from that region (van de Brug et al. 2014).

2.2 Trust as an Abstract Concept

Trust is an abstract concept, which is widely used yet not clearly defined. Often used as a loose term that could also describe concepts such as faith, hope or confidence, it has been recognised that most definitions are based on the underlying principle of trust as a *“willingness to be vulnerable”* whilst also having expectations in the trusted (Rousseau et al. 1998). The German sociologist Luhmann (1979 p.4) in his concept of Trust and Power states, that *“trust is a basic fact of social life”*. Complex structures of life can be organised through systems in society such as law, however, these systems are not able to fully control the inordinate multiplex nature of society. One way of reducing the *“complexity of the social system”* is through trust (Luhmann 1979). In a situation, where there is insufficient knowledge to underpin a decision or where a risk is involved that the decision made might lead to disappointment, trust is a way of overcoming these issues (Wilson et al. 2013).

Different theories of Trust such as those of Luhmann (1979) and Giddens (1991) discuss trust in the global or post-modern society, which is characterised by less institutional control through influential institutions such as the church and more impact of the individual through political and social rights (Misztal 1996). In relation to trust in food understandings of trust are the most frequently cited (Salvatore and Sassatelli 2004). Both conceptualisations categorise trust into two forms, interpersonal trust and institutional or abstract trust (Meyer et al. 2008). While interpersonal trust is seen as a personality trait which is learned and mediated between individuals in the different theories, institutional trust is placed in institutions or systems (Meyer et al. 2008). Nevertheless, there are substantial differences between the conceptualisations of trust of the two sociologists. When analysing consumer trust in the food system, the concepts of institutional trust are of interest. In Giddens` (1991) presentation of institutional trust, trust in the representative of the system, for example workplace canteen operators, is compulsory in order to trust the food system (Wilson et al. 2013). Faceless systems such as the monetary system, represent a situation where the trustee has got a lack of knowledge and contact with the system and needs trust to bridge this gap (Brown 2008).

However, as shown in Figure 2.3, faceless systems are rare and in most systems such as in workplace foodservice, the trustee or consumer in this case, has to also deal with delegates of the system which is termed facework (Giddens 1991). Therefore in systems, where the trustee has to deal with representatives of the system these can have an influence of the level of trust placed in the institution (Brown 2008). For the setting of workplace canteens, in both Germany and the UK, consumers encounter contact with service staff and occasionally the contract catering manager as representatives of the contract caterer.

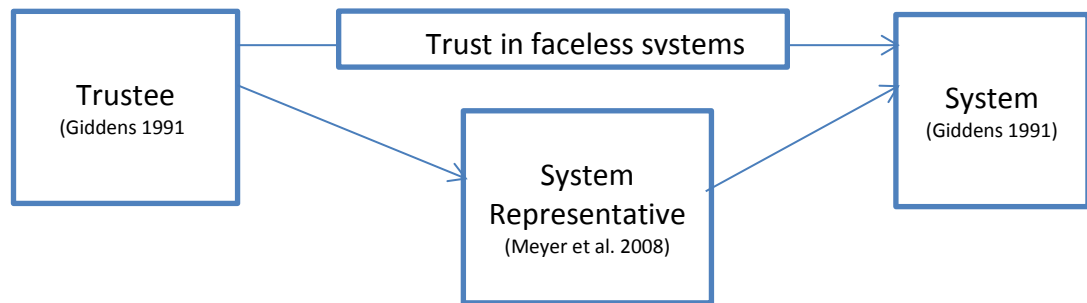


Figure 2.1 Trust in Faceless Systems and Trust in Systems relying on facework. Adapted from: Giddens (1991) and Meyer et al. (2008).

Contrary to Giddens` definition of institutional trust, Luhmann sees institutional trust as a multidirectional concept in the sense that trust in the food system is related to trust in other systems and additionally influenced by perceptions one has about representatives of the system (Meyer et al. 2008). As shown in Figure 2.4, trust in the system is preliminary to trust in representatives of the system. According to Luhmann (2000) restoring trust in actors of the food system at the micro level can be used to assure confidence in systems at the macro level. One might trust their butcher or local restaurant although there is a negative attitude towards the food system in general (Luhmann 2000).

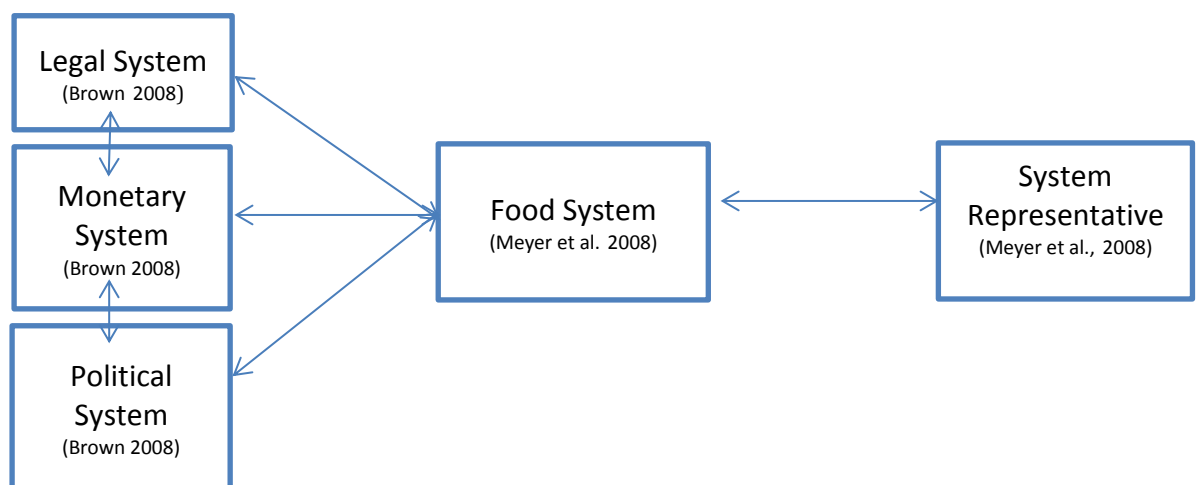


Figure 2.2 Trust in the Food System according to Luhmann`s Understanding of Trust. Adapted from Meyer et al. (2008) and Brown (2008).

2.3 Trust: Enduring or Vulnerable?

There is debate, whether trust is an enduring or vulnerable concept. Food practices and purchases are regular and repeated which strengthens non-reflexive trust, a way for consumers to deal with the complicated food system. Based on the Luhmannian approach to trust, Bildtgard (2008) concludes that eating and food choice can be handled in two ways: increasing control or through trust. However, due to the complexity of the food system it is difficult for the consumer to take control and the consumer has little option but to trust their food supply. Once a problem in the system occurs, consumers start critically reflecting which may lead to an alteration of current practices (Truninger 2013). For Giddens (1991) trust is a continuum which is unconsciously present until broken and distrust occurs. In conceptualisations of system trust as shown in Luhmann's (1979) and Giddens (1991) theories, trust is not defined as a process including mechanisms to build or maintain trust (Wilson et al. 2013). Slovic (1993) proposes an asymmetry principle and discusses that gaining and keeping trust is more complicated than losing trust. Consequently, this means that according to the asymmetry principle, assessment of trustworthiness is a constant requirement in order to trust (Cvetkovich et al. 2002). Considering that Luhmann (1979) regards trust as a way of organising and having a simpler society, having to constantly re-evaluate decisions in terms of trust would be time extensive and hardly feasible. On the other hand, Luhmann (1988) refers to trust as a conscious decision made after evaluating the benefits and possible downfalls of taking risks. Risk is defined in the sense that there is a lack of information that can be used to make a choice where the outcome is clear and anticipated. In a situation related to food, trust is often associated with food safety, where the consumer takes the risk and trusts the producer to provide him with safe food (Verbeke et al. 2007). To the consumer, it often is not visible whether or not the food offered is safe and therefore, the consumer can decide to choose to take the risk and trust the provider or not (Ungku Fatimah et al. 2011). However, the decision not to choose the food does not automatically equate to distrust (Luhmann 1988). In the Luhmannian (1979; 1988) concept of trust, distrust is not a clear opponent to trust but a functional equivalent. Both are decisions that can be made to reduce complexity in society, however the decision to trust increases the vulnerability of the person placing the trust (Jalava 2006). Distrust is rather a conscious withdrawal of trust that is not based on passive decisions but can be practised within impersonal-systemic relationships (Salvatore and Sassatelli 2004).

2.4 Reflexive Trust

Kjaernes (1999) criticised Luhmann's systems theory, as not sufficient enough to describe active trust in food systems as it does not take into account the reflexivity of consumers when making food choices. She demonstrates this by using the example of safety scandals in the meat industry, where the consumer has the option to stop their meat consumption as one extreme reaction to the information provided. Consumers may choose to avoid thinking about the implications of the new information and disregard it or look for alternative types of meat or meat production methods. This shows that in order to apply trust as seen in the Luhmannian typology to the food system, the reflexive thinking and resulting different options need to be taken into account. Bildtgaard's (2008) concept for reflexive trust shows similarities to Luhmann's (2000) differentiation between familiarity, confidence and trust as shown in Table 2.1 as he distinguishes between social bases for trust (Jokinen et al. 2012). Additionally, he draws on Giddens (1991) and adds the dimension of reflexivity to his concept of trust (Bildtgaard 2008). In his concept of trust, reflexive trust surfaces when habitual trust is broken through a change in the system or when the consumer has gained new knowledge about current practices which lead to a reflection of them (Truninger 2013). Therefore, trust cannot be assumed but is subject to active negotiation (Henderson et al. 2010).

Table 2.1 Comparison of Luhmann and Bildtgard. Adapted from: Luhmann (2000) and Bildtgard (2008).

Luhmann (2000)	Bildtgard (2008)
<p>Familiarity</p> <ul style="list-style-type: none"> • Simple and consistent, reoccurring and unconsciously accepted (eg. Meat is from animals). • Past: religion controlled difference between familiar and unfamiliar • Familiarity less important in modern society due to critical self- reflection • Still part of trust development • Explains cultural and national differences 	<p>Emotional trust</p> <ul style="list-style-type: none"> • Trust in people that are emotionally connected with the trustee • Child trusts mother to provide food • Trust based on shared norms and values
<p>Confidence</p> <ul style="list-style-type: none"> • Expectations which may lead to disappointment • Possibility of disappointment is neglected due to the rarity of its occurrence • Strongly associated with habit and routine, alternatives are not considered • Can turn into trust when the choice to make a decision is available • Can be placed in systems and seen at the macro-level (food chain) 	<p>Habitual trust</p> <ul style="list-style-type: none"> • Everyday practices (food selection or purchase) are made through habitual choice • Food systems are complex; limiting the ability of consumers to take control of food choice • Policy generated habitual trust: underlying knowledge of consumers that authorities regulate the food system
<p>Trust</p> <ul style="list-style-type: none"> • Familiarity and its experience form an important part of trust • Placed in interpersonal relationships in a complex society that is associated with risk • Placed after considering alternatives and weighing up risks • Not always an active decision, can be associated with routine • Seen at the micro-level: whilst there might be a lack of confidence in the food chain, actors of the food chain (Butcher, Green Grocer) can be trusted 	<p>Reflexive trust</p> <ul style="list-style-type: none"> • Consumers are challenged by multiplex food systems and conflicting information to make reflective choices regarding their food • Includes decision about what information and what actors of the food chain to trust • Consumers question current food habits due to increased knowledge about food scandals; can lead to a re-evaluation of options available

2.5 Trust in Food Survey

Although there is a considerable amount of literature that consists of theoretical understandings of trust, there is a lack of studies empirically evaluating trust (Meyer et al. 2008). Truninger (2013) affiliates with this argument by criticising the high focus on humanistic approaches to trust and that there is a lack of research beyond the humanist perspective. The Trust in Food project was a comparative analysis of social and relations theories in order to examine consumer trust in food systems (Chen 2013). It was based on individual and institutional data in six European countries: Denmark, Germany, UK, Italy, Norway and Portugal (Poppe and Kjaernes 2003). Outcomes of the Trust in Food survey showed that the three European countries under investigation (UK, Denmark, Norway) that had high levels of trust had a clear understanding of the responsibilities between consumers, government and actors of the food chain in common (Kjaernes et al. 2007). Low levels of trust were seen in the remaining three countries (Italy, Portugal and Germany), where there is no agreement in regards to responsibility between different parts of the system and consumers struggle to ascertain a trustworthy representative (Kjaernes et al. 2007). Differences between trust levels in European countries show great variations which cannot be explained through socio-demographic or country specific cultural traits (Poppe and Kjaernes 2003).

2.6 Different Cultural and Institutional Food Related Trust Theories

Trust theories in relation to food can be divided into informational explanations, cultural and normative typologies of trust and institutional performance approaches (Kjærnes et al. 2007). The first line encompasses explanations based on the impact of information as shown in the knowledge deficit approach (Poppe and Kjaernes 2003). Secondly variations in trust levels can be explained through cultural justifications where there is an emphasis on interpersonal trust as a requirement for trust in institutions (Kjaernes et al. 2007). Thirdly, institutional concepts of trust which are based on the assumption that institutional trust is linked to achievements and operations of institutions (Poppe and Kjaernes 2003).

The different approaches are shown in Table 2.2. Pan European data indicates that variations in levels of trust cannot be associated with universal consumer distrust or to consumers' ability to evaluate risk (Kjærnes et al. 2007). Additionally, as national levels of trust change over time, this cannot be the reason behind the distinctive differences between trust levels in different countries. Therefore, it is suggested that differences between different countries in regards to

trust levels can be explained through differences in market structure, governance and food systems (Kjærnes et al. 2007).

Theoretical approaches to Trust and Food	Summary of main points	Critique
Cognitive Trust	<ul style="list-style-type: none"> • Trust related to individuals` perception, evaluation and action upon risks • Consumers react to expert information by making judgements based on own beliefs • Depending on perception, risk communication can lead to distrust • Experts criticise consumer decisions as unreasonable (lay ignorance) • Knowledge deficit model: consumer reaction steered by lack of expert knowledge • Communication of information as the major channel of trustworthiness 	<ul style="list-style-type: none"> • Research focus on communication of risks; not on the actual interaction associated with food items
Distrust in risk society	<ul style="list-style-type: none"> • Reactions to crisis have changed as society evolved (Beck 1992) • Uncertainty and ignorance are underlying causes of distrust • Consumer has the freedom of choice, yet power is limited through structural constraints, inadequate knowledge, unbalanced relationships and uneven distribution of resources • Risks are difficult to interpret leaving the consumer with a feeling of uncertainty which is underlined by the asymmetrical relationship between consumer and food industry • Uncertainty can lead to distrust 	<ul style="list-style-type: none"> • Focus still on uncertainty and risk which are discussed as the macro level • Distrust is discussed at the individual level • Emphasis on health hazards and environmental hazards • Changes in the food sector resulting in distrust have led to the development of new forms of organisation
Trust as social	<ul style="list-style-type: none"> • Trust as a building block for a functioning society based on shared norms • Confidence, a pre-stage of trust, is developed early in life and strengthened through interactions with social systems and networks • Confidence can evolve to trust in a society that shares enduring norms • Trust is basic part of structure in systems (Luhmann 1979) • Uneven division of resources leads to different kinds and magnitudes of trust (Putnam et al. 1993) • Based on trust developing on shared norms, institutions reduce the degree to which collaboration depends on personal interactions • In a food context: link between consumer and market interaction, relationship between food industry and regulatory bodies 	<ul style="list-style-type: none"> • Less emphasis on risk and distrust compared to the above two theories. • Approach part of cultural theories based on shared norms • This established trust can help to form a trust relationship with institutions

<p>Consumer power and food choice</p>	<ul style="list-style-type: none"> • From an economic perspective, consumer sovereignty is assumed. The consumer has free choice based on individual preference and information provided (Scholderer and Frewer 2003) • Food purchases are often made routinely, emphasising the trust between buyer and seller • Consumption is part of daily life, influenced by social environment in terms of availability of food, preferences, financial means etc. • Institutionalised consumption through routine action; consumer power influences trust • Purchases are influenced by habit which signals underlying trust, which is unreflective, embedded in daily routines where it is reinforced by experiences (Miztal 1996) 	<ul style="list-style-type: none"> • More market orientated approach • Consumer has power and choice over food production
<p>Institutional trust</p>	<ul style="list-style-type: none"> • Trust is associated with institutional and/or political performance; good performance can lead to trust in the institution and vice versa • Trust can link consumers to institutions that act in their interest, increasing the importance of governance given to the consumer • Consumer scepticism can fuel discussions about current system and lead to more consumer involvement or drive distrust • Institutional performance is analysed on the background of other institutional performances • Explains international differences of trust on the various ways of market organisation and structure (Rothstein 2000) 	<ul style="list-style-type: none"> • Institutional trust theories have a greater focus on the influence of market and politics compared to cultural theories

Institutionalised relationships of trust	<ul style="list-style-type: none"> • Stresses the importance of both cultural and institutional trust theories • Challenges consumer sovereignty due to imbalanced relationship between consumer, food industry and governance • Trust placed in the actor of the food chain to meet shared values and expectations, not in the product itself • Consumer has to trust that shared values are met as consumer is not able to control system but checked by governing institutions • Developments in technology and the market lead to re-evaluation of shared values on a societal basis • Distrust can develop if the consumer is doubtful that his interests are protected • Consumer will actively decide whether or not to trust actors of the system (Giddens 1994) 	<ul style="list-style-type: none"> • Challenges consumer sovereignty • Emphasises the asymmetrical relationship between consumer and food industry
Determinants of trust in institutionalised arrangements	<ul style="list-style-type: none"> • Different forms or levels of trust; differentiation between trust in personal or network based relationships and less personal and more formal relations (Salvatore and Sassatelli 2004) • In modern society most relations have an impersonal character • Many consumers express desire to have a closer bond with actors of the food industry and actively seek for actors who share their values; growing popularity of farmers` markets • Institutions try to increase transparency in order to establish a connection to the consumer so that routinized consumer trust in institutions can be built • Branding and other strategies are used by food industry stakeholders to emphasise their commitment to meet consumer expectations 	<ul style="list-style-type: none"> • More rounded approach acknowledging all actors of the food chain • Taking into account developments of the food system, this approach describes how trust can be differentiated between different kinds of relationships.

Table 2.2 Different Theoretical Approaches to Trust in Food. Adapted from: Kjaernes et al. (2007).

Summarising the different approaches outlined in Table 2.1 and 2.2, trust can be seen as reflexive and cognitive. In reflexive trust, consumers are facing decisions about what information and which actors of the food chain to trust. These decisions are influenced by increased consumer knowledge about past issues in the food chain which can lead to a re-evaluation of options available as well as current food habits (Bildtgard 2008). Henceforth, trust is not a continuum but subject to active re-negotiations and re-evaluation. Similarly to reflexive trust, cognitive trust is focused on trust after the evaluation of risk. Hereby, trust is related to consumers' perception, evaluation and action upon risk. This can be influenced by expert advice as well as based on individual perception which may not be evidence based (Kjaernes et al. 2007). When making food choices in workplace canteens, consumers have little information on the food they are eating. Simultaneously though, knowledge about issues in the food chain such as the horsemeat scandal can lead to consumers evaluating the risk of purchasing food in their workplace canteen as well as considering alternatives of purchasing food elsewhere. Combined with personal perceptions about the relevance of the issues in the food chain, all these factors impact upon consumer trust in both food served in workplace canteens as well as trust in canteen operators.

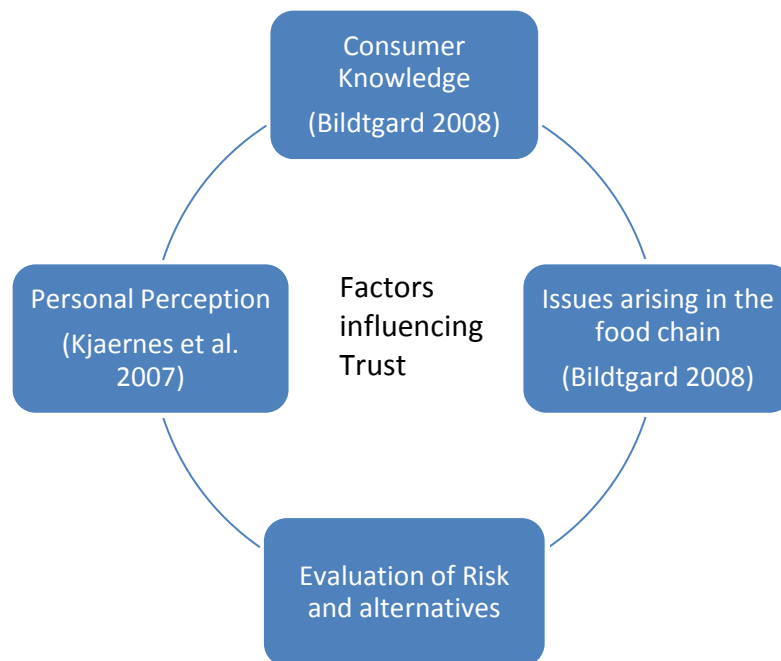


Figure 2.3 Factors influencing Trust. Adapted from: Luhmann (2000); Kjaernes et al.2007 and Bildtgard (2008).

2.6.1 Knowledge Deficit Model

Considerable amount of research into trust in food has been based on theories, that past food scares, agricultural regulations and practices in the food chain have alienated the consumer from the food production and led to distrust in food (Eden et al. 2008a). The knowledge deficit model proposes that the provision of better information can close the gap between consumer and producer and demonstrate the trustworthiness of actors of the food chain (Brunsting et al. 2013). However, this has led to an overwhelming amount of information for the consumer to process (Eden et al. 2008a). Additionally, information provided to the consumer can be misunderstood and confusing and as shown in previous research studies, even positive information provided to the consumer can have a negative effect and result in distrust (Scholderer and Frewer 2003; Poortinga and Pidgeon 2004). Both studies focus on the acceptance of information on Genetically Modified food and have shown that by providing consumers with information about the benefits does not change consumers attitudes towards this food production method (Scholderer and Frewer 2003; Poortinga and Pidgeon 2004). More recent research from another European country, Romania, in relation to Genetically Modified food has shown that people who are actively searching for information have more negative attitudes towards this food production method (Nistor 2012). However, research from the USA has shown that providing consumers with knowledge about Genetically Modified food can be one of the factors leading to a more positive attitude towards this production method (Cuite et al. 2005).

Critics of the knowledge deficit model have challenged this type of approach stating that a lack of information is not the sole reason for distrust. Rather conflicting information or complicated relationships between the provider of messages, social context and past experiences can influence trust in the food chain (Wynne 1995). Furthermore, it was concluded that people use experience, subjectively judged knowledge and perceptions of risk to make decisions rather than basing these on scientific knowledge (Nistor 2012). The perception of risk expressed by consumers might not reflect the actual risk as evaluated by experts and consumers in the UK have shown strong reactions to past food scares (Knight et al. 2007). This perception of high risk, even if this does not evince real risk, is described as expert-lay-discrepancy and can lead to distrust in consumers and have consequences for the consumer himself and the food market (Hansen et al. 2003; Berg 2004). Although the knowledge deficit model aims to reconnect the consumer with actors of the food chain through the provision of information which signal trustworthiness to the consumer, research in this field is mainly focussed on Genetically Modified food and there is a lack of research into other dimensions of the food chain (Eden et al. 2008b).

2.6.2 Consumer Sovereignty Theories

From an economical perspective it is underlying that food is produced and offered to meet the demands of the consumer; the consumer has power over the food system and is motivated by individual utilitarian orientation to gain maximum representation of their self-interest (Kjærnes 2012). Whilst often seen as the basic principle of the market, in the food system it is especially the retail sector which claims to provide the consumer with products desired. Yet, the concept of consumer sovereignty is too simplistic (Dawson 2013). Not only is the consumer the driving force behind consumption in the liberal concept, he also has the right to get information about food products and to make choices as to how food should be produced (Korthals 2001). Especially supermarkets and the development of new products have influenced eating behaviour in past decades and retailers direct consumer choice through set boundaries (Gardner and Sheppard 1989; Dawson 2013). High demands of consumers alongside their power of the food system are often named by the food industry as reason for detrimental developments in the food chain and the relationship between consumer and the food industry is antagonistic (Holm 2003). On the one hand, consumers criticise that food offered does not meet their needs and expectations, representatives of the food industry on the other hand oppose that the consumer is unreliable and driven by price rather than quality (Holm 2003). There is a discrepancy between consumer demands for lower price and higher quality which has implications for both consumer and producer (Lang 2003). In order to increase confidence in the food system, arguments from both sides, consumer and industry perspective need to be considered and commitments made (Korthals 2001).

Based on the concept of consumer sovereignty, consumers chose products that are of high benefit to them and do not consider the effect their decision will have on other people, making them passive and apolitical. However, the modern consumer is active and his purchasing intentions and needs reflect the consideration of other people and consumers have organised themselves to be heard through nongovernmental organisations (Korthals 2001; Kjærnes 2012).

Consumers regard the food system as not worthy of their trust which can partly be influenced by similarity confusion proneness, similar products on the market as well as confusing advertising and information can lead to a perception by the consumer that this is a deliberate action of actors of the food chain in order to mislead them (Walsh and Mitchell 2010). Additionally, confusing information in the form of labelling or no available information can have an impact on the levels of trust placed in food as consumers feel that industry place their interests in front of consumer interests (Walsh and Mitchell 2010).

2.7 The Active Consumer

Problems with food quality, including food safety issues, can decrease the trust placed in the food chain and in governing organisations (Coveney 2008). Public health crises have had a detrimental effect on consumer trust in the food safety regulatory system but as the health of the population relies upon the accessibility of safe food, public trust in the food safety system and its representatives is of high importance (Papadopoulos et al. 2012). Not only do consumers have expectations that food provided is safe and of high quality, based on EU and country specific legislation, it is the public's right to be provided with this (Jochelson 2006; Mazurkiewicz-Pizo and Pachuca-Smulska 2012). Additionally, past food scares have had characteristics where it was difficult for the consumer to identify a problem with their food if this was adulterated or unsafe (Papadopoulos et al. 2012). Even though it is the role of all stakeholders of the food chain to ensure the provision of safe food, different parts have different tasks (de Jonge et al. 2008).

Consumers have different expectations in food that are associated with health or ethical concerns relating to food production (Meyer et al. 2014; Aschemann-Witzel 2015). When these expectations are not met, there is not only an absence of confidence but also expressed distrust demonstrating consumer dissatisfaction with food production (Kjærnes 2012). Consequently, consumers look for alternative methods that meet their needs. In order to maximise utility, food on offer is evaluated and those products reflecting preferences and values most chosen (Lusk and Briggeman 2009). Values are defined as fundamental preferences, which guide the choices one makes in the market (Becker 1976). Personal attitudes, beliefs and behaviours are formed based on values which act as motivators for actions. They differ from attitudes in that they are trans-situational guides that are more content- and situation specific, therefore, considered to be better predictors of behaviour (Genc 2013). The main contributors to the understanding of values have been Rokeach (1973) and Schwartz (1992). Rokeach's (1973) eighteen values represent a stable set of beliefs which are used to justify one's actions and assess the self and other people (Schwartz 1992). Building on the developments of Rokeach (1973), the Schwartz (1992) model of values are 56 values which represent three culturally universal prerequisites for human existence which are the *"needs of individuals as biological organisms, requisites of coordinated social interaction, and survival and welfare needs of groups"* (Gouveia et al. 2014). Furthermore, Stern et al. (1993) classify that consumer attitudes rest on egoistic, altruistic or biospheric value orientations. Therefore, values reflect motivational concerns and goals (Schwartz 1992). The value orientations classified by Stern et al. (1993) are related to behavioural intention incorporating

beliefs about the possible adverse consequences. Additionally, the values identified by Schwartz (1992) can each be classified to fit into one of the value orientations identified by Stern et al. (1993). However, values which were identified by Rokeach (1973) and Schwartz (1992) as well as the value orientations identified by Stern et al. (1993) are not directly related to food (Lusk and Briggeman 2009). Nevertheless, these theories have been used to explain food preferences and attitudes towards foods. This has especially been the case in research on attitudes towards genetically modified and organic food as well as sustainable food production (Dreezens et al. 2005; Vermeir and Verbeke 2008). Through means-end chain analysis of food related scenarios a set of eleven food values, which are visually presented in Figure 2.5, was developed as an abstraction for product attributes that reflect consumer expectations (Lusk and Briggeman 2009).

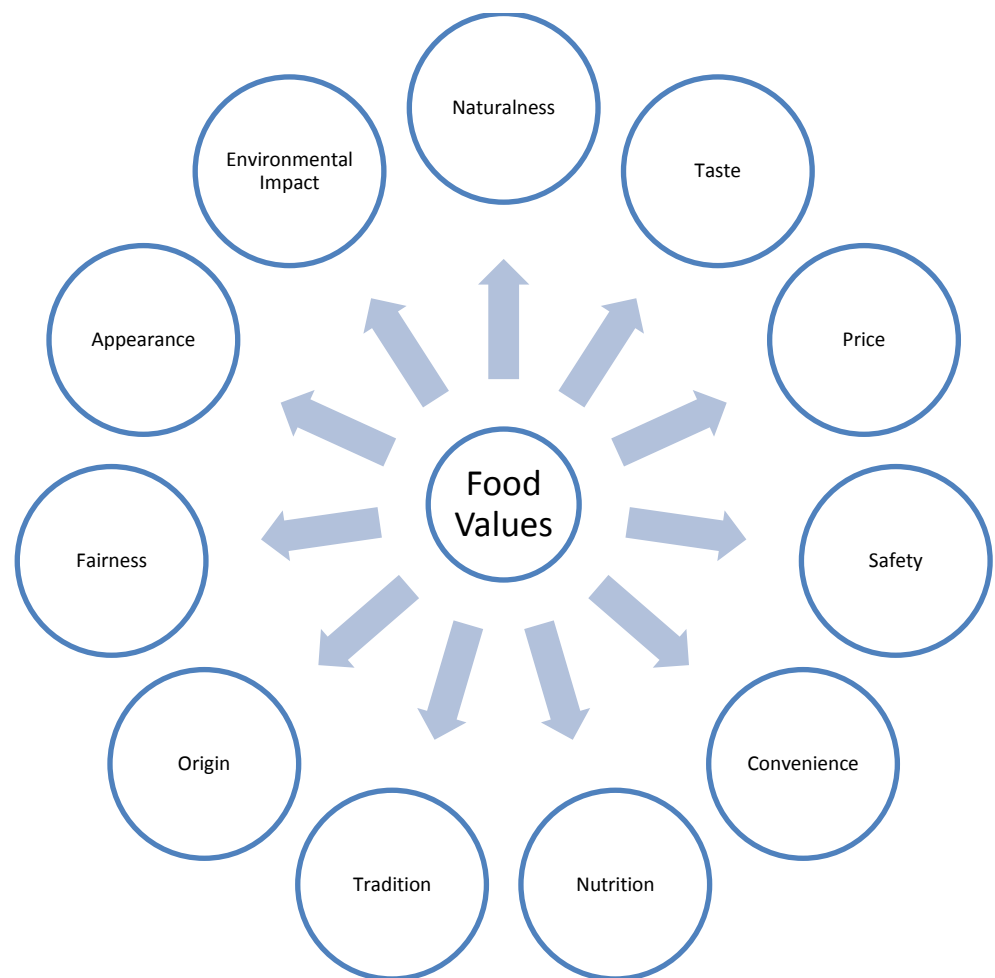


Figure 2.4 Food Values influencing Consumers` Food Choice. Adapted from: Lusk and Briggeman 2009

These food values do not represent food attributes but values which can be used to analyse differences in food choices and consequently informational needs (Lusk and Briggeman 2009). Awareness of importance, consumers attach to food values is relevant in order to identify flaws in the food production and guidance policy that protects the consumer (Lusk 2011). The

conception of food values has been widely used to understand consumer behaviour in relation to organic food consumption, increase of popularity of local food and consumer emphasis on fairly produced food (Chang and Lusk 2009; Toler et al. 2009; Hjelmar 2011; Zakowska-Biemans 2011). Furthermore, these trends of consumer focus in regards to food can also be seen as an alternative to main stream food production methods and chosen by consumers due to greater trust in these systems as shown in motives for organic food consumption (Krystallis et al. 2006). Consumers live their lives according to their values; as identified above consumers have different priorities of food values and have the right to have a choice of foods that meet their values (Brom 2000). The food values of environmental impact, naturalness and fairness are of a high importance and can act as reasons to decide to buy organic produce. Consumers trust this production method as it reflects their values which has an impact on the development of trust. People find it easier to trust those who share their norms and values (Heimbürger and Dietrich 2012).

2.8 Socio-demographic Differences of Trust in Food

There is not only a difference between the levels of trust in different countries but also within different socioeconomic categories in one country. People of a higher socioeconomic status are more trustful in government information and have a higher understanding of technological advances in food production (Tulloch and Lupton 2002). In comparison, consumers of a lower socioeconomic status have greater faith in personal recommendation, informal information sources and recommendations made by the media (Frewer et al. 1998). Additionally, there are differences between age groups and gender; younger people are less concerned with food issues which could be explained through their little involvement in food preparation (Henderson et al. 2011). Furthermore, people who have an interest in health due to being in charge of a family or suffering from illness may consider other aspects of food and are more actively looking for information which can lead to a decrease in trust (Taylor et al. 2012; Myung-Ja et al. 2013). Women are more concerned than men regarding issues associated with food quality and safety and the same is applicable for older people (Worsley and Scott 2000). One reason for this could be the fact that in most countries, women do the majority of food shopping and food preparation (Worsley et al. 2013).

2.9 Trust in Actors of the Food Chain

Trust levels vary between different representatives of the food system, defined as food production and retail of food, as well as sources of information (Meijnders et al. 2009). After a replication of the Trust in Food Survey in Australia in 2009, it was found that although trust in politicians was low, moderate trust was placed by consumers in media and supermarkets

(Henderson et al. 2011). A different study using elements of the Trust in Food Survey in Australia and European countries that investigated the level of consumer trust in the telling of truth at the time of a food scandal found that there is low trust in politicians (Coveney et al. 2012). There has been criticism that the media, a source of information which consumers seem to trust more than politicians and government institutions, overemphasise issues related to food quality which can have an effect on consumer trust (Knight et al. 2007).

Dutch research has shown that consumer trust in food manufacturers increases the overall trust in the food system compared to the role trust in government and other actors of the food chain play (de Jonge et al. 2008). This could be the case due to consumer perception that the government has the greatest influence on food safety followed by food manufacturers in comparison to retailers.

2.9.2 Trust in Agriculture and Retail

Consumers are removed from the way their food is produced and are reliant on anonymous institutional arrangements that govern food supply, which highlights the importance for an efficient communication of consumer criteria of importance from food producers (Thorsøe 2015). Additionally, products have become increasingly complex with more attention paid to credence attributes implying a greater gap between food producers and consumers (Fischer 2013). Food producers and agricultural organisations have been criticised to struggle with an effective communication of agricultural practices (Stebner et al. 2015).

Issues in the food system have had an impact on consumer trust in agriculture. Especially, the BSE crisis, salmonella outbreaks and the horsemeat scandal challenged the credibility of the food system and led to a decline in trust in agriculture (Abbots and Coles 2013; Thorsøe 2015). When consumers' expectations in food are violated, more attention is paid to the source of the issue rather than the message of the issue communicated (Le Poire and Burgoon 1996). Furthermore, misleading information communicated to uninformed consumers has led to a decline in trust placed in agriculture (Stebner et al. 2015).

Dissimilar to low consumer trust placed in agriculture in the EU, farmers appear to be the most trusted actors of the food chain in Australia as shown in the Australian Trust in Food Survey (Henderson et al. 2011). One explanation for this might be that Australia has not suffered from food scares as heavily as the EU or that Australian food is safer in comparison to imported food (Henderson et al. 2012). Australian research has shown that food safety issues are perceived to be a greater problem in the EU and that tight regulations in Australia keep risks low (Coveney 2008). Similar findings to the results of the Australian Trust in Food Survey were found in the USA where farmers alongside university scientists and environmental organisations were

classified as trustworthy in comparison to government agencies, food retail outlets and food manufacturers (Lang 2013).

There is higher trust placed in the retail industry, which is closer to consumers compared to food producers themselves. Trust is created through communication strategies that bridge the gap between the food industry and the consumers. This can be done either through increased transparency or ideologically (Phillipov 2015). Aspects which consumers value about alternative food production are used to portray conventional farming practices. Hereby, mixtures of advertising and representational strategies are used to portray the image that customers can know where their food has come from. One example of this is the presentation of farmers in retail campaigns that imply to consumers that their purchasing decisions benefit individual farmers and families rather than a large cooperation (Phillipov 2015). Food products are embedded with value-laden information so that consumers can relate to places, values and individuals involved in the food production (Thorsøe 2015). In spring 2016, the retailer Tesco in the UK has been criticised for selling meat and vegetable products under the range of British sounding farms that were non-existent, to portray the image that products were sourced by a specific farm, aiming to meet customer expectations in regards to provenance (Lewitt 2016).

The horsemeat scandal is another recent issue that occurred in the food chain, whereby food advertised as containing beef was found to contain undeclared or improperly declared horsemeat. Different to previous food problems, products containing horsemeat have also been sold in workplace canteens (Abbots and Coles 2013). Figure 2.6, illustrates the wave of trust from low in agriculture to higher in retail, and where currently the evidence is unclear in workplace canteens.

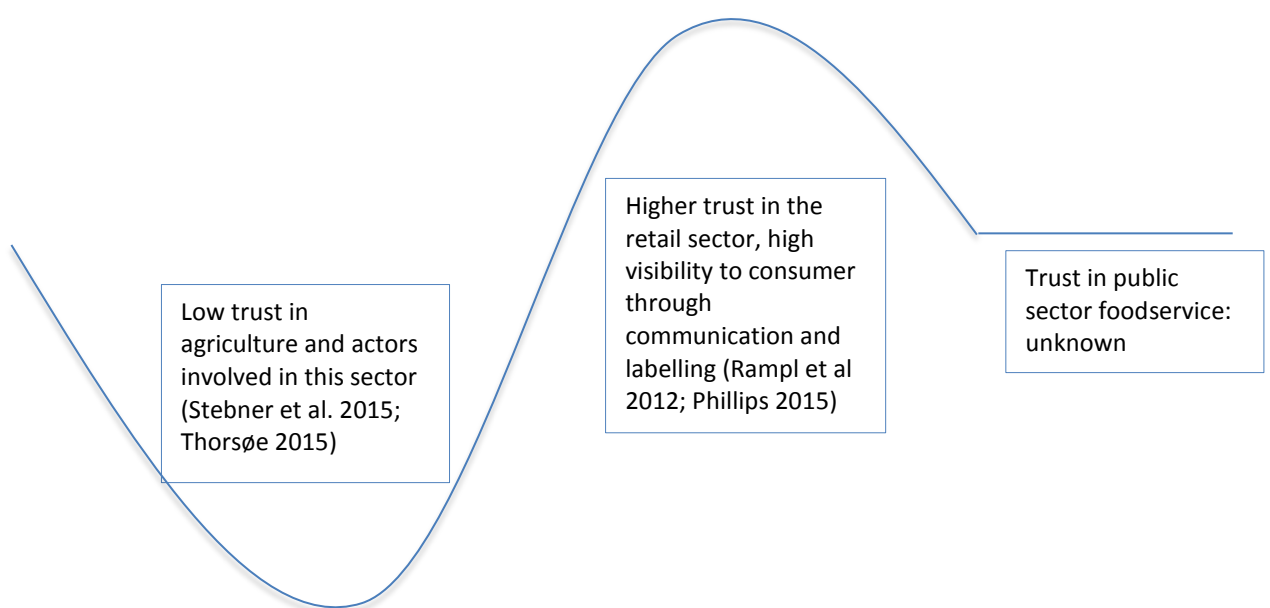


Figure 2.5 Wave of Consumer Trust Placed in Different Actors of the Food System

2.10 Eating Out

Lifestyles in both high and low income countries are ever developing and changing which influences patterns of food consumption (European Commission 2010). One of these changes is the increase of eating out which for many people has become an integral part of modern life (Benelam 2009). One in six meals are estimated to be consumed out of the home (Mikkelsen 2011). In Europe, public catering and fast food restaurants contribute the most to eating away from home (Lachat et al. 2012). This rise in eating out is caused by multiple factors: increased disposable income, changes in traditional family structure, greater availability of food items and globalisation (Ali and Nath 2013). A lack of knowledge of food preparation and cooking skills as a result of the aforementioned factors has also been suggested to contribute to the decrease of traditional meals consumed at home (Soliah et al. 2012).

Eating patterns have changed from meals taken together with the family to more irregular food consumption as cultural norms around foods have changed (Kjaernes 2012). One of the main aspects of the traditional meal at home is that it was habitually prepared by women; this was embedded into several cultures and religion, which has changed for many people (Goyal and Singh 2007). Meals consumed inside the home now might not necessarily have been cooked from scratch due to the high availability of ready to eat food (Celnik et al. 2012). Additionally, eating out as a family or alone has become one of the most popular leisure activities and might not often take place due to hunger but as a social activity (de Rezende and Silva 2014).

2.11 Dining Out Trends

Foodservice is a dynamic and volatile industry. The interests of customers when eating out are constantly changing and expectations in the industry to adapt to dynamic demands are high (Marcovic et al. 2010). Whilst local and traditional food has regained importance when eating out, this has not affected customers` curiosity for foreign cuisine especially ethnic foods (Bugge and Lavik 2010; Lachat et al. 2011). Part of the reasoning behind these seemingly contradictory trends could be a more multicultural society (Roseman et al. 2013a). Additionally, previously considered foreign foods such as Italian or Chinese have been established in the everyday diet and are widely accepted and demonstrate a demand for more ethnic foods (Roseman et al. 2013a). Ethnic street food is a key trend in the UK and driven by both increased diversity in culture and interest for new flavours such as Caribbean or Japanese dishes (Mintel 2016b). Depending on the occasion of the meal, there might be a stronger focus on traditional food and meal settings according to cultural custom where rituals that express the belonging to society (de Rezende and Silva 2014). In Germany, in comparison with other

European countries such as France, there is no overarching traditional dish and there are differences between several regions (Heinzelmann 2008). Therefore, the emphasis on local food is underpinned by the demand for local traditional dishes, region specific dishes that are based on ingredients that are available locally (Heinzelmann 2008). Furthermore, knowing the source of origin of food may give people reassurance in their food selection (Fleming et al. 2008a). Consumers are also becoming more socially responsible. Around 25% of consumers are interested in eco-friendly and ethical business practices, sustainability, fair treatment of animals, reduction of carbon footprint and locally sourced food (Fleming et al. 2008a).

Customers also have shown appetite for more healthy food including dishes that consist of fewer calories than usually encountered as well as having more vegetables served with food ordered (Lachat et al. 2011; Roseman et al. 2013a). Consequently, restaurants are trying to attract customers that have an interest in a healthy lifestyle, especially as it has been noticed that non-availability of nutritional dishes can lead to health concerned consumers eating out less frequently (Hwang et al. 2012). Following these trends and dining in establishments that offer food that meets the desires of customers often is associated with extra cost and especially attracts the urban middle class (Bugge and Lavik 2010). Currently, niche markets for more ethical products such as local food, organic or fair trade are tailored towards educated and wealthy consumers (Johnston et al. 2011).

2.12 Reasons for Dining Out

Consumers eating behaviours are influenced by various factors including physical, social and cultural contexts (Mikkelsen 2011). People eat out for different occasions and reasons which also is associated with different behaviour (Rashid 2003). There is an apparent distinction between eating away from home for hedonic reasons in comparison to utilitarian motives for eating out (Lim and Ang 2008). Time of day can have an influence on this, as eating out in the evening is more often associated with social aspects whilst eating away from home at lunchtime habitually is driven by the need to satisfy hunger (Bugge and Lavik 2010). Furthermore, perceived necessity to eat away from home through lack of time or food preparation skills can result in frequently visiting catering outlets. However, the amount of times a catering outlet is visited might not automatically indicate that it is visited due to provision of high quality food. A roadside catering outlet for example might be visited repeatedly but convenience often plays a greater role for purchase of food than quality (Bugge and Lavik 2010). Whilst for some people dining out in a food venue is used for pleasure the same venue can be used by others for functional reasons. Especially amongst young diners, fast food outlets are the venue of choice when eating out as they are a place used to socialise

with friends whilst older customers regularly use these establishments for different reasons, mainly convenience (Rydell et al. 2008; Larsen et al. 2011). Additionally, there are different priorities when eating out; when young people eat in fast food restaurants they do not expect high quality service but when eating out in full service restaurant the expectations towards food quality and service change (Harrington et al. 2012).

2.13 Demographic Segmentation in Foodservice

Foodservice attitudes and behaviours are influenced by demographic variables and often grouped into generations that combine shared traits and behaviours (George 2011). This approach to segmentation has become very popular and as summarised by Valkeneers and Vanhooimisen (2012), the main focus of research is on the generations of the Baby Boomers, Generation X and Generation Y. Figure 2.1 gives an overview of the different generations and their age ranges. Understanding the similarities and differences between generations is of importance in the foodservice industry in order to target each generation based on their attitudes and values (George 2011). Additionally, each generation can be targeted using different communication technologies (George 2011). Especially Baby Boomers and Generation Y are of interest to the foodservice sector due to their size and representative purchasing power (Parment 2013).

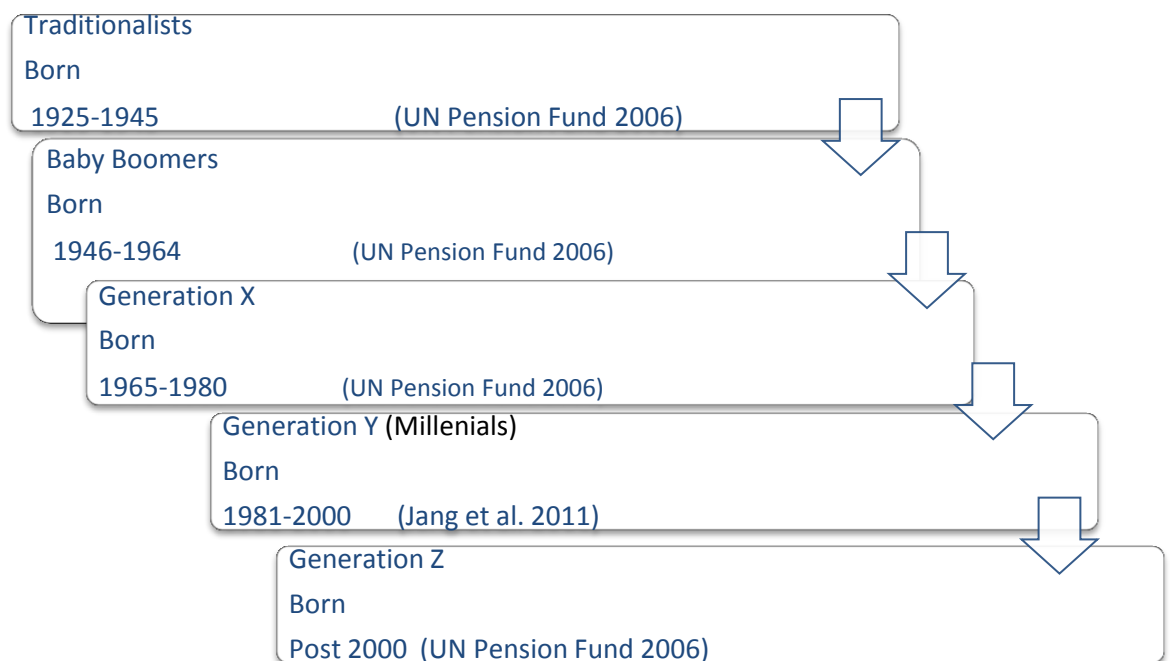


Figure 2.6 The Generations. Adapted from United Nations (UN) Pension Fund (2006); Jang et al. (2011)

2.13.1 Baby Boomers

Baby Boomers were born between 1946 and 1964 in a rising post war economy (United Nations (UN) Joint Staff Pension Fund 2006). Characterised by a revolutionary outlook, consumers of this generation have travelled well in comparison to older generations and hence gained insights into many food cultures (Parment 2013). Therefore, there is demand for different culinary foods when eating out. However, as the mature part of this generation is reaching retirement age, there is a greater focus on healthy foods as a consequence of a high prevalence of non-communicable disease in this age group (Worsley et al. 2013).

2.13.2 Generation X

Generation X or Busters, born between 1965 and 1980, have felt the impact of the economic recession more than other generations. Compared to the other generations, this cohort is considerably smaller and described as pragmatic and often pessimistic as they are conscious about having to pay contributions for the considerably larger generation of Baby Boomers (Timmermann 2007). They are technologically savvy but unlike Generation Y have adapted to technological changes rather than growing up with technology (Timmermann 2007). Additionally, they are more loyal towards brands and employers than younger generations (Reisenwitz and Iyer 2009). Although there is a lack of research into food behaviours of this generation, technological knowledge and loyalty are aspects that are important to consider in foodservice trends. Furthermore, having less disposable income than other generations can have an effect on both frequency and amounts spend per occasion.

2.13.3 Generation Y

There is increased focus on the dining out behaviour of what is referred to as the Generation Y or Millennials, born between early 1980s and 2000 (UN Joint Staff Pension Fund 2006). Having grown up during a period of economic growth and the emergence of empowerment, this generation is confident and technologically adept (Parment 2011). Furthermore, this generation has a high frequency of dining out and amounts spend per head (Jang et al. 2011). Additionally, this generation has been growing up with the increase of eating out and has adapted to this behaviour partly because this generation lacks knowledge about food preparation (Todd Webster 2013). In comparison to Generation X and Baby Boomers, there is a greater motivation to consume for status amongst consumers of the Generation Y (Eastman and Liu 2012). Sensitive to reference groups, Generation Y consumers want to display their consumption to their peers (Kim and Jang 2014).

2.14 Socio-economic Status

Lower socio-economic status has been associated with lower dietary quality in general and increased consumption of fast food (Thornton et al. 2011). Additionally, there is a lower consumption of foods away from home in non-fast food restaurants amongst people with a lower income (Thornton et al. 2011). There is an increased risk of developing non-communicable diseases such as cardiovascular disease and diabetes amongst people with a lower socioeconomic status (World Health Organisation (WHO) 2003). In the UK, data from the National Diet and Nutrition Survey has found that more than one quarter of adults ate out once per week or more with young adults eating out more often than average (Adams et al. 2015). Differences in socioeconomic status, however did not influence the frequency of eating out per se but rather the type of food outlet visited. Whilst adults from higher socioeconomic backgrounds ate out in restaurants more often, adults from lower socioeconomic background did not eat out less frequently but ate more take-away meals (Adams et al. 2015).

2.15 Diet and Disease

Health is largely influenced by dietary patterns over the life course (WHO 2003). Prevalence of diet related diseases are epidemic not only in high income but also in lower income countries. Especially coronary heart disease, high blood pressure, cancer, type 2 diabetes and obesity are non-communicable diseases that are related to dietary intake (Capacci et al. 2012). Although these conditions may have multiple causes that are correlated and act accumulatively over the course of life, diet plays an important modifiable factor (Willet 2013).

Historically, the high prevalence of obesity and other diet related non-communicable diseases was seen as a problem of the individual, but now there is greater recognition of composite actions that can be taken to improve this public health issue (Jørgensen et al. 2010). The increasing trend of eating out has been linked to the rise of overweight and obesity and it has been recognised that restaurant operators have got the potential to empower their guests to make better dietary choices (Cranage et al. 2004). Eating away from home is associated with higher intakes of sugar, fat and starch and less intake of fibre. Additionally, eating out is often correlated to intake of foods that have a lower micronutrient profile (Orfanos et al. 2009).

The established link between eating out and higher consumption of energy dense food is often blamed on fast food outlets. Nonetheless, it has been proven that eating out regardless of eating venue, provides higher energy intakes at mealtimes compared to food prepared at home (Binkley 2008). Concurrently, people may give a healthy lifestyle high importance, but when it comes to eating out consumers can feel that this is a treat and select dishes of less

nutritional value. The inconsistency is observable even in those dining out on several occasions per week (Choi and Zhao 2014).

The World Cancer Research Fund's NOURISHING framework of food policies to promote healthy diets, consists of three domains of policy action: the food environment, food system and the way communication can be used to change behaviour (L'Abbe et al. 2013). Dietary patterns are influenced by access to food in terms of physical availability of food and also by availability of healthy foods. Therefore, the opportunity for calorie intake is an important modifiable factor in the development of obesity and some environments are more obesogenic than others, hence promoting weight gain (Mackenbach et al. 2014). Obesity is the most common and costly health problem which also is a risk factor in the development of other aforementioned non-communicable conditions (Pérez Rodrigo 2013). Additionally, dietary behaviours are shaped by food producers, manufacturers and retailers through their products that appeal to the taste of the consumer and perceptions about portion sizes (L'Abbe et al. 2013). Not only the food system itself is changing but also the role of the individual within the system is under constant change (Vidgen and Gallegos 2014). Nutrition policies in Europe acknowledge the role the catering sector can play in shaping dietary behaviour (Lachat 2011).

2.16 Business and Industry Foodservice

Workplace canteens can be managed either by public authority and called in house or by a catering company referred to as contract catering (Bergström et al. 2005). The management of workplace canteens by contract caterers is referred to as Business and Industry, which will form the setting of investigation for this research.

Public sector foodservice is also referred to as a cost sector, where meals are supplied out of necessity rather than the focus of making profit and is expanded in facilities such as hospitals, schools or staff canteens. Usually funded by taxes or parliament grants, the aim is the wellbeing of the community and not to distribute profit; any surplus of revenue over expenditure will be reassigned to improvements to service or reduction of charge (Mullins 2007). The increased privatisation of public sector organisations has led to an alternative classification of profit and not-for-profit organisations. Additionally, there has been increased government pressure to ensure cost-effectiveness and private sector investment, termed Business and Industry, is the norm (Mullins 2007). Figure 2.2 shows different facilities that form part of public and private sector foodservices. In the UK, contract caterers are estimated to have delivered 1,607 million meals in 16,583 canteens including workplace canteens, schools, colleges, universities, hospitals and healthcare services as well as other non-profit outlets (Diamond et al. 2012). Although in the past often seen as a side line to public services such as hospital treatments, foodservice provided in these settings nowadays is seen as a

powerful tool to promote healthier eating habits and improved sustainability within institutional settings (Mikkelsen 2008).

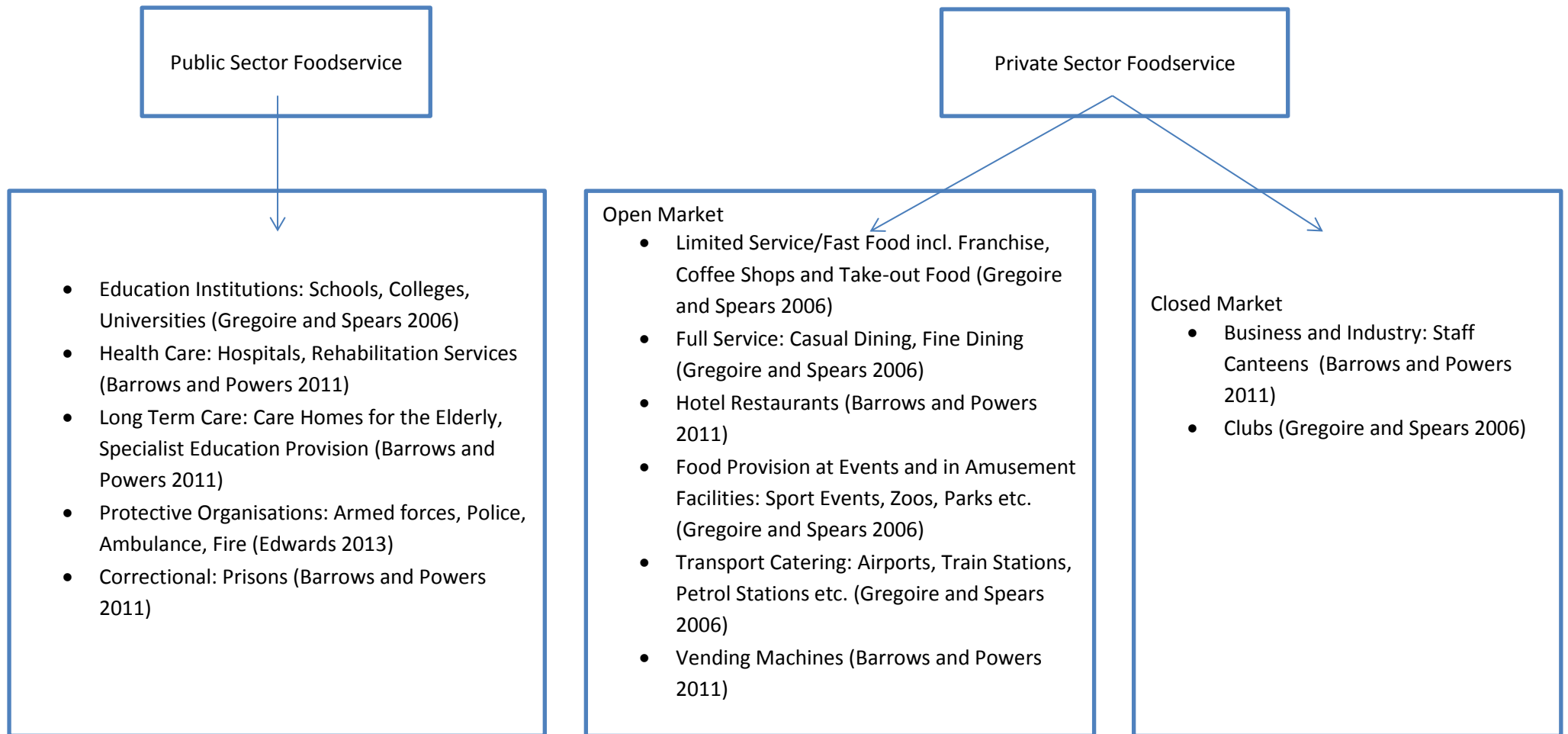


Figure 2.7 Public and Private Sector Foodservice. Adapted from: Gregoire and Spears (2006), Barrows and Powers (2011) and Edwards (2013)

In the early period of 2000 up to 2008, the market share of contract catering had increased by 7%. Characterised by high degrees of competition and market concentration, large operators have strengthened their positions by taking over smaller competitors (European Foundation for the Improvement of Living and Working Conditions 2010). However, the economic recession has led to an overall reduction of Business and Industry contracts whilst budget cuts have affected contract caterers in health, education and defence services (Mintel 2013). Additionally, food issues such as the horsemeat scandal in particular have disturbed the sector (Mintel 2013). Nevertheless, contract catering forms a significant part of the food related economy and is powerful as it represents a predictable and stable demand in contrast to private foodservice (Morgan and Sonnino 2008).

There are several challenges contract caterers are facing including changing consumer demands, increasing food prices and the high obesity levels of the population (Edwards 2013). Consumers' food purchasing habits have changed in a retail setting and when eating out in outlets of the private sector leading to pressure on workplace canteens to keep up with changed consumer demands and expectations (Edwards 2013). However, cost is a big issue in supplying food in workplace canteens as caterers have to adhere to a strict budget (Lachat et al. 2011). Additionally, food prices spiked in 2008 and have risen constantly since, whilst contract caterers often face budget cuts or stagnation (Mintel 2013; Marsden 2014). Morgan and Sonnino (2008) state, that caterers have to perform miracles to deliver meals of high quality considering the small budget available. Food in public sector foodservice and Business and Industry is generally purchased using the method of procurement contracting, which starts around approximately a year before the food is bought and usually results in a two year contract with the supplier (Bergström et al. 2005). Through this commodisation, products are traded as undifferentiated commodities, sourced in large quantities from global locations to minimise cost (Mattevi and Jones 2016). Therefore, small scale local producers are often unable to compete with large national competitors (Morgan and Sonnino 2008). There is increased pressure for workplace canteen provision to change to a more sustainable provision of food, calling for changes in current food procurement practices which have been seen to be successful in some outlets in Denmark, UK and Italy (Morgan and Sonnino 2008; Mikkelsen 2008). Alterations of traditional supply chains used in workplace canteens towards more sustainable ones challenge the belief that food provenance is only of relevance in exclusive restaurants (Morgan and Sonnino 2008).

In a retail food setting, the consumer demand for local and sustainable food has long been recognised and the market share of organic food products is rising (Andersen and Lund 2014). This underlines that food provenance is of importance to the consumer (Mean and Watson 2013). However, at present there is little regulation to offer healthy or sustainable food in

workplace canteens. In England, there is a contractual obligation for food served in hospitals, not only for patients but also in staff canteens and for visitors, to adhere to the Department of Health's recommendations on levels of salt, saturated fat and sugar (Keogh and Osborne 2014). However, this obligation only relates to food served in hospitals. Nevertheless, caterers are encouraged to increase the nutritional value of their meals in all settings (Lachat 2011). Therefore, it is good practice to adhere to the demands of the consumer and be set above competitors. However, good practice is not as effective as previously thought and it is suggested that policy intervention might be needed in order to positively influence this part of the food system (Morgan and Sonnino 2008). Especially in this setting, consumers' ability to alter decisions made about food towards more sustainable and healthy alternatives heavily depends on the decisions made by the procurement contract managers which often favour cost over provenance (Bergström et al. 2005). Further, the challenges contract caterers face are discrepancies in food policy and standards on a national and international level. Morgan and Sonnino (2008) refer to barriers encountered by contract caterers put in place by the European Union which state that the use of local food cannot be stated in public catering contracts as it infringes on the free trade principles. Contrasting to this, the UK Government Buying Standards which were implemented in the UK in 2011 for food and catering services promote improvements in sustainability and nutritional value of products (DEFRA 2015). Hence, the policy climate is rather 'muddy' and inconclusive.

2.17 The Workplace Canteen

The importance of the workplace in health promotion has long been recognised and was first advocated by the World Health Organisation in their Ottawa Charter for Health Promotion (World Health Organisation 1986). It is an influential setting that affects the physical and mental wellbeing not only of employees but also their families (Ni Mhurchu et al. 2010). Europe's workforce has changed over the past decades which has led to a greater participation of women and an increase in age of the working population. The latter also indicates a higher prevalence of chronic disease (Zwetsloot et al. 2010). In the UK, over 31.7 million people are employed whilst 43.6 million people are working in Germany, where they spend up to 60% of their waking hours (Department of Health 2005; Destatis 2016; Office for National Statistics 2016). Therefore, health promotion and occupational health are gaining importance for organisations with increasing evidence of a healthy workforce being more efficient (Zwetsloot et al. 2010). Additionally, it is in the interest of the company to have a healthy workforce as depending on country, sickness absence is paid at full wage for the first two years in the Netherlands and first six weeks in Germany (Bundesministerium der Justiz und für Verbraucherschutz 1994; Zwetsloot et al. 2010). Concurrently, the cost of food related illness

will also have impact on employers in the form of absence from work and is around £6 billion for the NHS alone (Rayner and Scarborough 2005). Furthermore, health promotion in the workplace can increase job satisfaction and staff retention (Department for Work and Pension and Department of Health 2008). In the UK, the Public Health Responsibility Deal is a voluntary government-led initiative whereby the private sector and NGOs in partnership with the government approach public health objectives (Panjwani and Caraher 2014). One of these objectives is health at work including both mental and physical wellbeing, indicating that there should be a strong focus on employer involvement in enabling and guiding people's choices (Buttriss 2011). Large workplaces of more than two hundred employees are recognised as an ideal setting for improving population health because there are already established organisational structures (Taylor et al. 2016). Workplaces canteens might be provided to employees as a fringe benefit as well as a concern to improve health and wellbeing. Nevertheless, employers' motivation to provide workplace canteens might be more introverted, such as a means to retain employees on-site in order to reduce the need for longer meal time breaks as well as blurring of boundaries between home and the workplace (Thomas et al. 2016).

Increased productivity and enhanced performance are outcomes of cost benefit analyses of workplace health interventions (Goetzel and Ozminkowski 2008). Employers have especially recognised the effect the provision of food at the workplace can have on the productivity of their employees and have taken more responsibility in offering meals at the workplace (Jørgensen et al. 2010). It is here where employees spend a large amount of time and consume a great amount of their overall dietary intake (Katz et al. 2005). A large part of the population take one or more meals at the workplace (Jørgensen et al. 2010). Depending on the occupation, those meals can either be taken in a workplace canteen or in cases where employees work late hours, purchased through vending machines (Nyberg and Olsen 2010).

There are differences in the availability and use of workplace canteens between the different countries of Europe. Finland has a long tradition of providing food at work and with meals based on the national dietary recommendations, the food habits of the population have improved (Jørgensen et al. 2010; Raulio et al. 2010). Additionally, meals in the workplace in Scandinavian countries are usually subsidised by the employer and therefore meals are not perceived to be too expensive as it is the case in the UK (Raulio et al. 2010; Pridgeon and Whitehead 2013). Therefore, food has to be offered at a competitive price. Furthermore, in Denmark, some workplace canteens offer ready meals that can be taken home for consumption in the evening to meet the demands of their time constrained customers (Quintiliani et al. 2010). In Germany, there is a difference between the prevalence and use of workplace canteens which historically stems from the divide between East and West Germany.

In East Germany, it was very common to eat lunch at state run workplace canteens and this has continued to be the case in comparison to West Germany, where although workplace catering was available, packed lunches and more recently available opportunities to buy food in cafes dominate (Heinzelmann 2008). Nevertheless, as in other European countries food offered at work is generally subsidised and therefore a reasonably priced alternative to packed lunches or take away foods (Heinzelmann 2008). Workplace canteens that can be classed as Business and Industry can be considered diverse, whereby the organisations cater for a narrow customer base that is made up of direct employees (Thomas et al. 2016).

Interventions that focus on the workplace as an effective setting for action are limited (Capacci et al. 2012). Different types of interventions ranging from providing employees with information about a healthy diet to environmental changes that nudge employees to alter their choices have been shown successful in the workplace (Quintiliani et al. 2010; Kahn-Marshall and Gallant 2012). However, it has often been found that providing information only is not sufficient enough in order to improve food habits and that the practical opportunity to make better decisions in regards to diet are more effective (Vaask and Pitsi 2010). Therefore, interventions that focus on the individual can be complemented with the aforementioned ecological approach in order to demonstrate understanding that although individuals are responsible for their actions, choices are made in the context of the larger environment (Panjwani and Caraher 2014). In terms of providing healthy meals in the workplace, it has been shown that there is a greater acceptability of this if the menu is enriched with healthier food, rather than restricting it and removing unhealthy dishes (Jørgensen et al. 2010). Health interventions targeting workplaces can help to encourage behaviours that are beneficial to health (Kahn-Marshall and Gallant 2012). These behaviour changes can not only be influenced through health interventions but also through environmental changes (Kahn-Marshall and Gallant 2012). However, a systematic review of worksite interventions aiming to improving employee diets found that although interventions can reduce dietary fat intake by 9% and improve fruit and vegetable intakes by up to 16% there is a lack of evidence on long term effects of behaviour change (Ni Mhurchu et al. 2010).

There is a lack of research in workplace canteens especially, that captures employees' opinions of healthy eating in the workplace (Cabinet Office 2008). Unavailability of healthy food at a reasonable cost and the perception that caterers of canteens are more profit than health orientated were found to act as barriers to consumption of healthy food at work (Pridgeon and Whitehead 2013). Most research available examines the role of the provision of healthy food

in worksite canteens, and lacks in depth analysis of other criteria that consumers attach to food such as sustainable food production and animal welfare.

2.18 Consumer Need for Information

Food policies aim to increase the nutritional literacy of the population and try to not only provide the individual with information but also empower them to make changes towards a healthier lifestyle (L'Abbe et al. 2013). Nevertheless, whilst providing the individual with knowledge and skills to make healthier choices, information the consumer needs to make those choices is not always available in workplace canteens. This is partly because there is a lack of strategy in place that supports caterers to communicate relevant information to the consumer (Lachat 2011). The Unilever Food Solutions' World Menu Survey (2011) has shown that 73% of UK participants and 55% of German participants indicated that they would like to see information about their food when eating out. The aim of leading a healthier lifestyle is a key motive behind the demand for information (Unilever 2011). Only 10% of the respondents from the UK and Germany felt that they were provided with any nutritional information in regards to their meal the last time they dined out (Unilever 2011).

Summary

Eating out is clearly becoming more important in modern day life and is embedded in European culture. Trends show that consumers are interested in the provenance of their food and also show interest in sustainable production methods such as organic and animal welfare. Furthermore, there is pressure on foodservice providers to enhance the nutritional value of their menus and enable customers to make better dietary choices given the strong link between an unhealthy diet and the development of disease. Nevertheless, consumers struggle to use information provided and feel that there is a lack of information relevant to them. Food scandals make consumers re-evaluate the trust they have placed in the food system and its actors as well as the part they themselves play in the provision of food. Consumers' desire to take a more active role in the food system is mirrored in current trends in both retail and foodservice which indicate that consumers need to be provided with sufficient information that meet their values and demands in order to trust their food.

Chapter 3

Information Quality and Ways of Providing Food Information

Introduction

This chapter explores the role nutrition labelling, quality assurance; branding and ICT solutions such as smartphone applications can play in providing food information to consumers. The chapter presents a critical review of literature on information quality, identifying issues relating to consumer comprehension of food information and challenges food producers' face when making food information available. Furthermore, literature on the introduction of new European legislation concerning the provision of food information has been evaluated. Additionally, different formats and ways of providing food information to consumers in a retail sector but also on restaurant menus have been critically discussed. The chapter concludes with a conceptual framework, illustrating how relationship marketing can be used to establish consumer trust in foodservice settings.

3.1 Information Quality

With more information existing than ever, people feel overwhelmed by its overload (Mai 2013). Given the abundance of available information there is a challenge of establishing its value and usefulness as well as assessing its quality (Ruževičius and Gedminaitė 2007). Floridi (2010) defines information as meaningful data. Therefore, information is provided with the intent that it has a meaning for the receiver and is consequently a vehicle in a communication process (Mai 2013). In the context of food, information provision of various forms is the only communication between actors of the food system and the end consumer. Hence, it is important for food operators to provide their consumer with information of high quality that is relevant and meets their expectations (Ruževičius and Gedminaitė 2007). In the field of information quality, Wang and Strong (1996) have made significant contributions by identifying accuracy, timeliness, precision, reliability, currency, completeness, relevancy, accessibility and interpretability as attributes that contribute to good quality information (Helfert et al. 2013). Furthermore, the importance of taking into account user satisfaction is recognised (Wang and Strong 1996). In a food context, there is criticism that the information needs of the consumer are not satisfied. Firstly, consumers lack the literacy to understand the information and therefore cannot utilise information sufficiently, secondly information might not be available (Carbone and Zoellner 2012).

3.2 Processing of Information

There is a clear information asymmetry between food producers and consumers (Fritsche and Holle 2013). Food producers have an advantage in knowledge and information due to their closeness to the product (Holle 2013). Whilst some food information provided is perceived as irrelevant, there is a lack of information available on some criteria of importance that consumers feel they have a right to know (Lusk and Marette 2012). Reasons for seeking out food information differ for consumers but are mostly related to general health choices, personal interests, environmental concerns, health concerns, food allergies, specific diets and religious reasons amongst others (Chan et al. 2013). The latter often is regarding information related to production methods or provenance of ingredients.

Information asymmetry affects consumers as a lack of information in combination with cognitive limitations and time pressure to take decisions can influence their perception of quality (AITal 2012). Around 80% of German consumers have indicated that they struggle to make judgements about the quality of products due to a lack of information (Michels 2012). Furthermore, 78% find dry and factual information provided on food packaging difficult to understand (Zuehlsdorf and Spiller 2012). Moreover, the way food information is delivered to consumers is governed by policy to provide accurate information in a format that consumers can understand (Guthrie et al. 2015). This underpins the need to provide food data in a coherent format that can be utilised by consumers. However, amongst food producers, there is the perception that providing enhanced information limits their ability to present products in a commercially interesting way (Van der Meulen and Bremmers 2013). Additionally, government campaigns draw consumer attention to certain nutritional issues such as sugar or salt consumption which are aspects that producers might not want to focus their attention on when marketing products (Guthrie et al. 2015).

Although there is a perception amongst food producers that food information can negatively influence the attractiveness of products, providing this in an interesting way can enhance consumer interest in products. Many food products are marketed using information and communications technology (ICT) to create consumer interest in products. However, the potential of using technology to provide data is not widely recognised within the food industry (Lowe et al. 2015). Technical solutions can be used to provide consumer orientated information but also by consumers to personalise information (Lowe et al. 2015). Therefore, both content and way of communicating food detail are of importance to reduce the information asymmetry between food producers and consumers. Although anything communicated needs to adhere to policies and regulations it also needs to be presented in a

consumer orientated way. Figure 3.1 shows an adaption of Fritsche and Holle's (2013) goals for consumer orientated communication for food. This was adapted to also incorporate an increase of consumer confidence as a communication goal and the use of ICT solutions as an enabler.

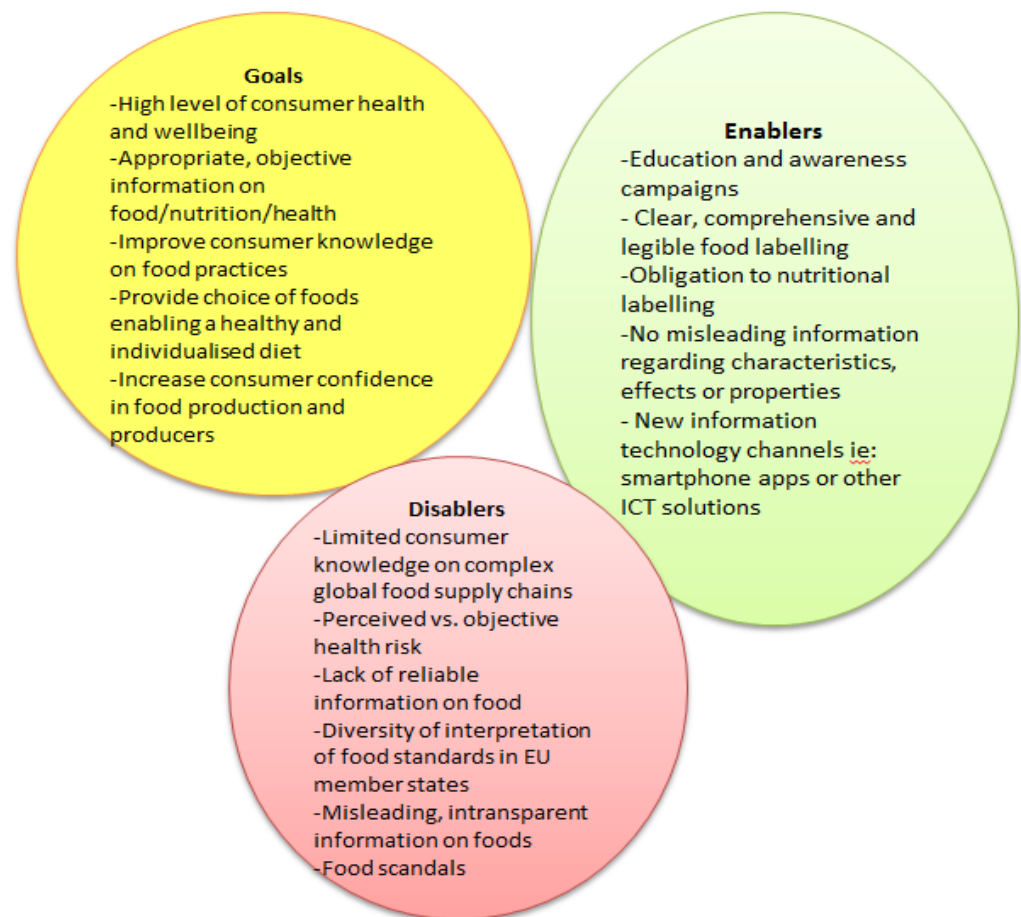


Figure 3.1 Goals of Consumer Orientated Communication for Food, Enabling and Disabling factors. Adapted from: Fritsche and Holle (2013), Gurtherie et al. 2015.

It is claimed that a lack of transparency within the food chain hinders consumers to make rational food choices (Holle 2013). In order to aid the consumer in their choice, policy intervention has led to the introduction of information provision such as mandatory nutrition labelling (Lusk and Marette 2012). Given that nutrition labelling is a form of information provision, the consumer and their way of processing this needs to be taken into account when developing the layout and format of provision (Lusk and Marette 2012). Providing information however, does not automatically equate to knowledge. Furthermore, the availability may not be suitable due to limited consumer attention and packaging restrictions (Lusk and Marette 2012). Therefore, information processing is an important concept in developing meaningful data.

Even though nutritional labelling aims to inform and encourage better food choices, its impact on food intake of healthier products has been limited (Westenhofer 2013). It is recognised, however, that there is a call for more information provision on the side of the consumer. Nevertheless, data that is communicated is not often understood as consumers struggle to process this and have little understanding of concepts such as traceability (Van Rijswijk and Frewer 2012). Consequently, information processing alongside habitual elements of food choice and eating need to be taken into account in order to understand how further food information can be provided in a meaningful way (Westenhofer 2013). Information processing is influenced by cognitive capacity, opportunity cost of processing and the expected marginal benefit (Gellynck et al. 2006). Cognitive capacity and willpower to process information is often low and requires a high opportunity cost compared to the marginal benefit of devoting time and effort as shown in Figure 3.2 (Gellynck et al. 2006).

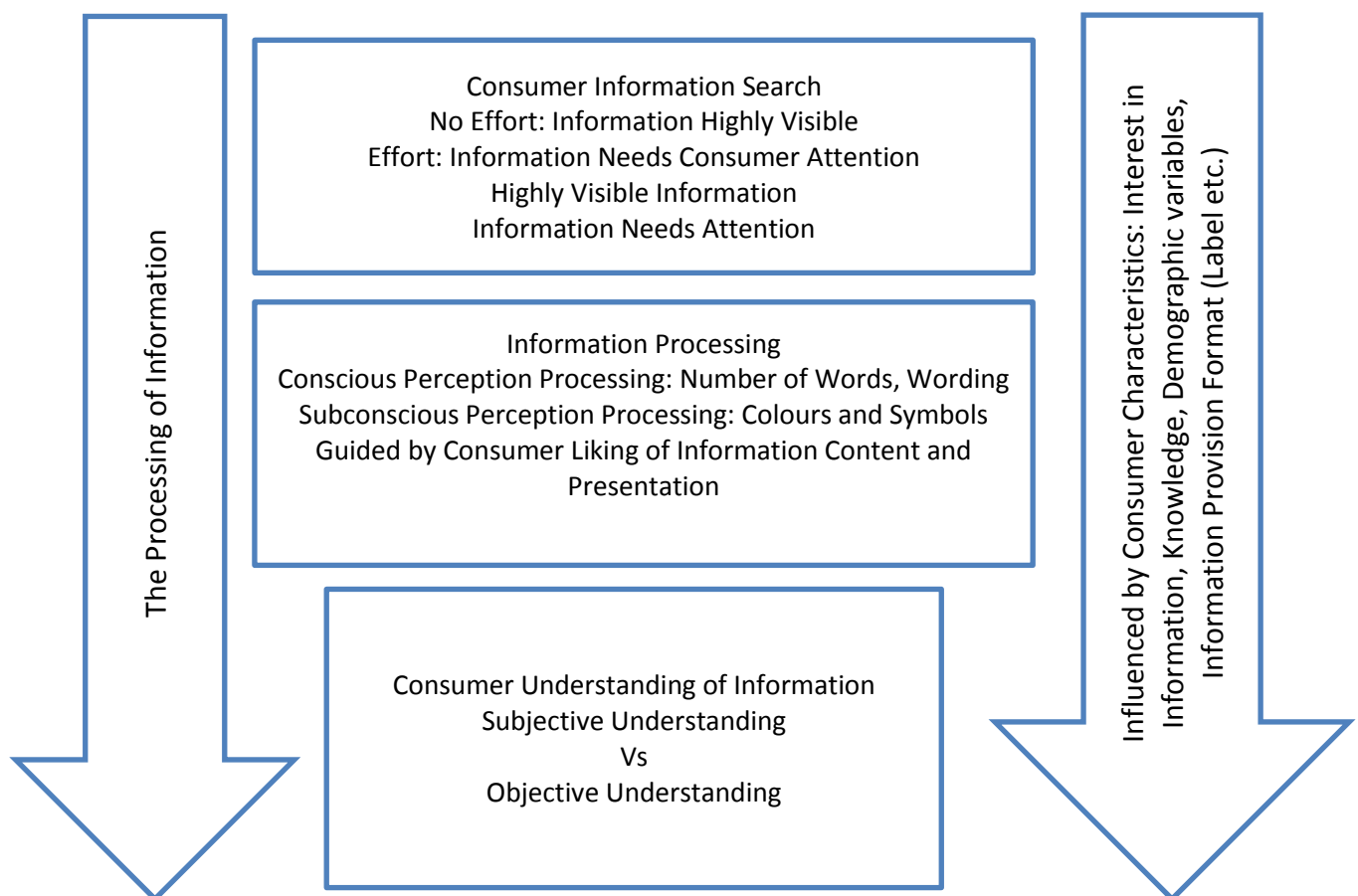


Figure 3.2 The Processing of Food Information. Adapted from: Grunert and Wills (2007) and Westenhofer (2013).

Information processing does not always occur consciously, therefore, intention to make certain food choices and actual choices made are influenced by underlying factors. Hence, consumer demands can appear conflicting. Whilst consumers demand elaborate information about products which may stem from a mistrust in the food chain and desire to regain control,

information is also preferred in a clear and simple format (Van Rijswijk and Frewer 2012). Furthermore, different segments of consumers have different expectations and demands. Information provided to consumers, for example nutrition information, might be difficult to understand for the average consumer (Nocella et al. 2014). While, a call for more food information might align with consumers rational intention to modify their dietary intake actual food choice, however, can be the result of a struggle between conflicting short term eating pleasure and long-term health intention (Lowe et al. 2015a). Consequently, information provision does not always lead to knowledge or action; the well-informed consumer always acting responsibly is a myth (Arens-Azevedo 2013). Similarly, the lack of transparency within the food chain can hinder the consumer to make rational food choices. Nevertheless, considering the role individual, emotional and contextual factors play, lack of information or transparency are not the only barriers to healthy food choice but do play a role (Holle 2013; Lowe et al. 2015).

3.3 Consumer Right to Information

The decision to buy food products is as aforementioned not only influenced by habitual behaviour and emotions but also made in seconds as information provided on food packaging on average is recognised by the consumer within 1.2 and 1.6 seconds (van Herpen and van Trijp 2011). Holle (2013) uses this interplay of habitual behaviour, emotion and rational decision making to illustrate two scenarios on how information can mislead consumers. Firstly, consumers cannot be misled by information about food products provided to them as they do not recognise or utilise information provided. Secondly, the consumer is almost always misled by food information as decisions have to be made on the basis of insufficient information available and more likely than not are influenced by emotions and time pressure. Furthermore, Holle (2013) questions whether there is a duty of food producers to provide consumers with sufficient information in a meaningful way or whether it is the duty of the consumer to become information literate and actively seek for information. Hence, this debate is lively and current. Influenced by food policy and governance, food information can be delivered to consumers in a dry and factual manner. However, providing it this way has been suggested to be overruled by consumers emotion and habits (Sunstein 2013).

This leads to the discussion as to whether it is the duty of the producers to invest in time and effort to provide alternative communication techniques that are able to transfer information effectively or whether consumers need to take a degree of responsibility in obtaining and understanding the information (Holle 2013). Consumer protection is closely aligned to the right to information, including the right to gain access to information about products as well as

the right to knowledge and consumer education (Mazurkiewicz-Pizo and Pachuca-Smulka 2012). In order to fulfil this, data must be reliable, accurate and complete as well as communicated in a clear manner and in an individualised way (Mazurkiewicz-Pizo and Pachuca-Smulka 2012). Given the asymmetry between food producers and consumers, it is the consumers right to gain access to understandable information (Mazurkiewicz-Pizo and Pachuca-Smulka 2012).

3.4 The EU Regulation on the Provision of Food Information to Consumers

On a European level, the regulation of the European Parliament on the 'Provision of food information to consumers' (EU No 1169/2011) became enforceable by December 2016 and replaced national policies that regulated food information provision (Vaqué 2013). It simplified parts of previous labelling regulations, introduced additional requirements and overall harmonised food labelling in Europe (Cieślakiewicz 2012). Furthermore, the regulation applies to all foods provided to consumers, therefore including non-pre-packed foods sold in catering outlets (Unland 2013). Designed to be flexible, it has the protection of the consumer as its focus whilst balancing the safeguarding of both internal markets and consumers (Mazurkiewicz-Pizo and Pachuca-Smulka 2012). Information provided to the consumer must be communicated in a way that is easily understood by everyone (Mazurkiewicz-Pizo and Pachuca-Smulka 2012). Additionally, further information on the origin of food and the presence of allergens needs to be made available (Unland 2013).

The regulation has been criticised by food producers, as being misleading for the consumer in the case of provision of the country of origin. Although provision of this type of information is welcomed by consumers and associations, the regulation has been criticised for not being sufficiently detailed (D'Elia et al. 2011). Simultaneously, food producers challenge the implementation of the changes in terms of cost and complexity (D'Elia et al. 2011). Furthermore, it has been said that the new regulation does not encompass all information needs of the consumer for example traceability can be lacking and labelling of genetically modified organisms is not required (Mazurkiewicz-Pizo and Pachuca-Smulka 2012).

Moreover, the new regulation means that consumers have to adapt their practices in regards to the way they make use of information provided. In the UK for example, allergy information was commonly provided voluntarily in allergy advice boxes and advisory labelling statements (Food Standards Agency 2010) which is not the case now, where the ingredients list is used. Table 3.1 provides an overview of the main points of the Regulation (EU) No. 1169/2011 on the provision of food information to Consumers.

Table 3.1 Regulation (EU) 1169/2011 on the Provision of Food Information to Consumers

Aspect	Summary of Changes
Mandatory Nutrition Declaration	<ul style="list-style-type: none"> Provision of seven nutrients: energy value, amount of fat incl. saturates, carbohydrate sugars, protein and salt (Mazurkiewicz-Pizo and Pachuca-Smulska 2012)
Voluntary Nutrition Declaration	<ul style="list-style-type: none"> Mandatory nutrition declaration cannot be extended to further nutrients (Unland 2013). Not to be displayed to the detriment of space for mandatory food information but in same field of vision (Vaqué 2013).
Allergens	<p>Prepacked foods:</p> <ul style="list-style-type: none"> Allergens listed in a typeset which clearly distinguishes it from the rest of the list of ingredients. Allergen box not covered by Regulation. <p>Non-Prepacked foods:</p> <ul style="list-style-type: none"> Information on allergens must be available. Presentation may depend on national measures adopted by member states (Unland 2013). it is not possible to provide allergen information only upon the request of the customer (Vaqué 2013).
Consumption Unit	<ul style="list-style-type: none"> Presented in the same field of vision and in the form of expression per 100 g or 100 ml uniformly. Where applicable may also be expressed on the basis of per portion (Mazurkiewicz-Pizo and Pachuca-Smulska 2012).
Country of Origin	<ul style="list-style-type: none"> Disclosure of country of origin in the case of beef and beef products, fish, olive oil, honey, fruits and vegetables. Additionally disclosure of swine, sheep, goat and poultry (Mazurkiewicz-Pizo and Pachuca-Smulska 2012). For other foods “Made in ...” is voluntary, unless absence could mislead consumers in particular if the information provided would otherwise imply that the food has a different country of origin (D’Elia et al. 2011). Where production takes place in more than one country, the origin is labelled as the place where the last substantial, processing step was undertaken (D’Elia et al. 2011). Country of origin labelling can be expanded, if there is a proven link between qualities of the food and its origin; however those adaptations shall not give rise to obstacles to free movement of good (D’Elia et al. 2011).
Presentation of Information	<ul style="list-style-type: none"> X-height of the font must equal to at least 1,2 mm. Packaging whose biggest surface area is less than 80cm²: x-height of the font may be equal to or greater than 0,9 mm. May not be removable, hidden or obscured from view, interrupted by any other written or graphic material (Mazurkiewicz-Pizo and Pachuca-Smulska 2012).

Adapted from D’Elia et al. (2011), Mazurkiewicz-Pizo and Pachuca-Smulska (2012), Unland (2013), Vaqué (2013)

3.5 Different Ways of Providing Food Information to Consumers

The following section reviews different forms of communicating food information to consumers. This includes mandatory information that has to be made available to consumers such as nutritional labelling as well as private initiatives in the form of quality assurance, that help consumers make a judgement about the quality of food. Furthermore, the role brands play for consumers in obtaining information about products is explored alongside alternative methods of accessing information including ICT solutions.

3.5.1 Nutritional Labelling

Nutrition labelling aims to provide nutrition information in a simple way in order to enable informed and healthier food choices (Souiden et al. 2013). Simultaneously, nutrition labelling can further product knowledge and decrease search costs (Berning et al. 2010). In regards to the availability of processed food, the UK is one of the most developed European markets and therefore, has got one of the highest prevalence of nutritional labelling (Hodgkins et al. 2012). However, the amount of different ways nutrition labelling is used has led to confusion and overload of information amongst consumers (Hodgkins et al. 2012). There is a mix of government and industry initiated systems, which use different nutrition criteria as a baseline that can be vulnerable to industry manipulation (Hawley et al. 2013). Moreover, a literature review of front of packaging labelling has raised requests for a uniform system, where nutrition information is provided from a credible and trustworthy source (Hawley et al. 2013). Evidence on nutrition labelling is far from conclusive with some studies questioning the impact it has on change in consumer behaviour and reduction of diet related illness (Borgmeier and Westenhoefer 2009). Nevertheless, nutrition labelling is viewed as an important tool in supporting healthy choices (Roseman et al. 2013b).

3.5.2 Nutritional Labelling among Different Population Segments

The use and understanding of nutrition labelling differs among segments of the population. Health related motivations and socio-demographic factors have an impact on label responsiveness (Hess et al. 2012). A systematic review about the users of nutrition labels on food packaging has found that these are especially used by females, individuals with either health consciousness, higher income or higher education (Cowburn and Stockley 2005). Age and perceived susceptibility to diet related disease are some reasons to have a higher motivation to lead a healthy lifestyle (Hess et al. 2012). Furthermore, there is increased

interest in information on products with a low transparency, products which are bought for the first time or in situations where time is not a constraint (Hoefkens et al. 2011b). Contrary, some people may not be interested in nutritional values, as food for them has a more hedonic meaning (Hoefkens et al. 2011b). However, one of the disadvantages of the many of the currently used systems is that consumers struggle with the maths skills needed to convert the caloric information provided to the portion size that would be eaten (Roseman et al. 2013b). Although, a link between lower levels of education or lower income and label use has often been documented, there are studies that have not found an effect of low education or low income on reduced label understanding (Drichoutis et al. 2005; Campos et al. 2011). Furthermore, a limited attention span means that one is unable to concentrate on all information provided and evaluate which effect this might have on health and wellbeing (Lusk and Marette 2012). Not only might there be a struggle to understand a single way of information provision, the plethora of different systems available can lead to confusion and make the comparison between products even harder (Hersey et al. 2013). Nevertheless, the aforementioned are not sole reasons for not using food labels, hence, non-usage of nutrition labels is not directly linked to a lack of understanding of nutritional data (Grunert et al. 2010).

Although there is debate about a right for more information on food, a large amount of information is provided already and by simply increasing supply, too much information can be a distraction from criteria consumers value in food (Lusk and Marette 2012). Therefore, rather than increasing information provision, it should be tailored to different segments of the population (Souiden et al. 2013). Only information that is perceived as relevant is going to be utilised by consumers (Roseman et al. 2013b). However, socio-demographic segmentation measures have been criticised and a replacement of these measures through behavioural and attitudinal factors is called for (Hollywood et al. 2007). Health motivated people often show an increased interest in food labelling in a restaurant setting (Roseman et al. 2013b). Nevertheless, those who do not regularly use nutrition labels, still recognise their importance (Stranieri et al. 2010).

3.5.3 Menu Labelling

Providing calorie information on menus can only be beneficial if consumers have sufficient knowledge about their caloric daily needs (Breck et al. 2014). When eating out the amount of calories consumed is often underestimated, especially when consuming large meals at fast food chains (Block et al. 2013). In order for menu labelling to be effective it is essential that there is an understanding of how consumer understandings and beliefs lead to the decisions

that are made when selecting a dish (Roseman et al. 2013b). Providing calorie information on menus has resulted in different outcomes on calorie consumption. An American study has found that the implementation of menu labelling led to a calorie reduction in woman but not men eighteen months after introduction (Krieger et al. 2013). Rank ordering calorie information on menus so that healthier meals are presented at the top of the menu has shown to lead to a perception that the restaurants is healthier (Liu et al. 2012). Studies on point of purchase labelling in university canteens have shown that a symbol indicating healthy food did not lead to healthier food choice and that providing information in a format liked by the target population in combination with educational interventions may be more persuasive (Hoefkens et al. 2011a; Hoefkens et al. 2012b). Claiming importance and interest in labelling is an important step towards using provided information as it is unlikely that those who have not registered interest will be making use of something they feel is not valuable (Verbeke 2008). A public debate on nutrition labelling has shown to have an impact on society as shown in the UK, where food labelling has gained much attention (Grunert et al. 2010). Simultaneously, introducing menu labelling might lead to a greater amount of food reformulation and promotion of healthier options from caterers (Saelens et al. 2012).

The majority of research into food labelling has been undertaken in a retail setting; studies that are examining menu labelling, mostly originate from the USA where in some states menu labelling is mandatory for chains with more than twenty outlets (Breck et al. 2014). As part of the 2010 Patient Protection and Affordable Care Act in the USA, nutritional information is required to be posted in many restaurants and fast food outlets (Gregory et al. 2014), and there is a similar requirement in Ireland (FSAI 2016).

3.5.4 Different Ways of Delivering Nutritional Information

Within Europe, the UK has been at the forefront of implementing front of package labelling and undertaking research into appropriate labelling formats (Grunert et al. 2010). In the European Union, nutritional information given on a label must show the amount for energy in kJ and kcal, protein in g, carbohydrate in g, fat in g plus the amount of any nutrient for which claims have been made per 100g or 100ml (European Union 2011). Amounts of nutrients shown per serving must be provided in addition to the 100g or 100ml values (Food Standards Agency 2010).

3.5.4.1 Nutrition Information Displayed by Weights or Percentage Guideline Daily Allowance

On food packaging quantitative nutrition information is most commonly supplied in the following ways: absolute weights in grams or as a percentage of guideline daily allowances or

daily values or a combination of these as shown in Figure 3.3 (Miller 2014). The use of absolute metrics can be problematic as different nutrients are measured using different units such as grams and micrograms, where understanding of differences between these units depends on numeracy skills (Levy and Fein 1998; Rothman et al. 2006). Furthermore, not only numeracy skills are required for the understanding of nutritional information provided in these formats but also basic nutritional knowledge (Van Der Merwe et al. 2013; Watson et al. 2013). Although there are the aforementioned problems associated with the provision of numerical metrics and guideline daily allowances, understanding of the concept has been shown to be good in the UK, Germany and Sweden (Grunert and Wills 2007). Additionally, whilst this type of information is usually displayed on the back of food packaging, in some American supermarkets, nutrition information is also displayed through shelf labelling (Berning et al. 2010).

In a catering environment the display of numeric nutritional information has been shown to have a greater effect on consumers who are less health conscious (Ellison et al. 2013). However, it has been criticised that for those consumers who have a sound understanding of nutritional values of food adding calorie information on menus provides little new information (Ellison et al. 2013).

Nutrition				
Typical values	100g contains	Each slice (typically 44g) contains	% RI*	RI* for an average adult
Energy	985kJ 235kcal	435kJ 105kcal		8400kJ 2000kcal
Fat	1.5g	0.7g	1%	70g
of which saturates	0.3g	0.1g	1%	20g
Carbohydrate	45.5g	20.0g		
of which sugars	3.8g	1.7g	2%	90g
Fibre	2.8g	1.2g		
Protein	7.7g	3.4g		
Salt	1.0g	0.4g	7%	6g

This pack contains 16 servings
*Reference intake of an average adult (8400kJ / 2000kcal)

Figure 3.3 Nutrition Information Box (NHS Choices 2013)

3.5.4.2 Traffic Light labelling

In the UK, the Food Standards Agency has developed a traffic light approach to labelling (Hawley et al. 2013). This system indicates at-a-glance, whether products have high, medium or low amounts of certain nutrients in addition to the nutritional values of a manufacturer or

retail suggested serving of food as shown in Figure 3.4 (Food Standards Agency 2010). Furthermore, it has been suggested, that traffic light labelling can be used most effectively in a combination with text indicating whether a product is high, medium or low in sugar, saturated and unsaturated fat and salt (Malam et al. 2009). In their study, Malam et al. (2009) found that the traffic light system was the most preferred system in the UK and also German adults have indicated that this is their preferred format of food labelling (Borgmeier and Westenhoefer 2009). Nevertheless, the indication of a red colour could be misunderstood as food products that should be avoided rather than consumed in limited amounts (Grunert and Wills 2007). In a fast food restaurant, the provision of traffic light labelling has shown to reduce calorie consumption by around 120 kcal (Morley et al. 2013). Although this reduction of calorie intake appears small, its contribution at population level can be significant (Morley et al. 2013). German and UK consumers are found to have a higher responsiveness to traffic light labelling compared to other formats (Feunekes et al. 2008; Grunert et al. 2010; Möser et al. 2010). However, this preference for traffic light labelling might be accountable to the presence of a debate around traffic light labelling in the media in these two countries (Van Herpen et al. 2012).

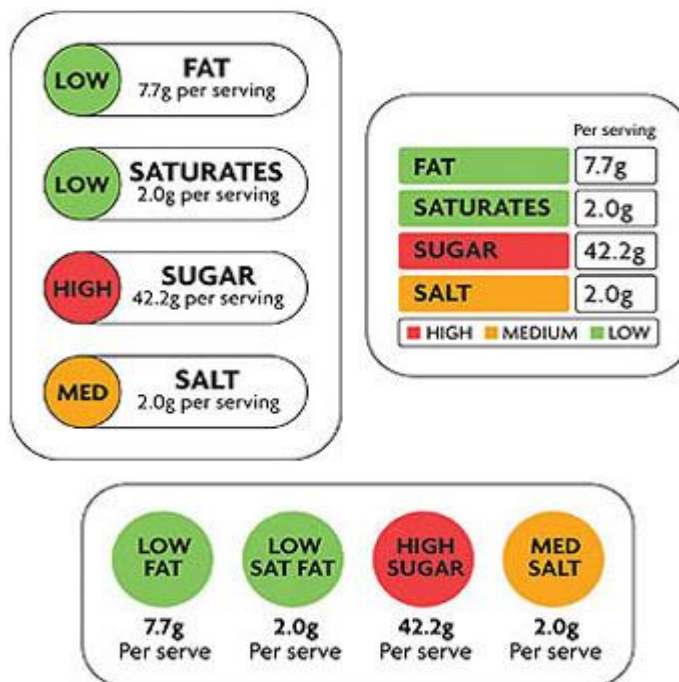


Figure 3.4 Examples of Traffic Light Labelling (Food Standards Agency 2010)

3.5.4.3 Nutrition Information Through the Use of Symbols

In comparison to quantitative information provided about nutritional quality, there are alternative systems in place that help consumers identify healthy products. Summary labels use a set of criteria to obtain an overall nutritional score which is displayed on products

(Hersey et al. 2013). The American Heart Association supports a heart-check mark that indicates product benefit for heart health and the Swedish National Food Administration created the Keyhole Symbol (Svederberg et al. 2008; Berning et al. 2010). These systems were initiated in the late 1980's and are binary schemes which can be placed on a product if certain criteria are met as shown in Figure 3.5. The number of both government and industry initiated schemes has expanded since (Emrich et al. 2013). In addition to binary schemes, other systems used are grades, such as the US system of Guiding Stars, where the health ranking of the product is displayed on its packaging (Hersey et al. 2013).

However, there is little regulation around these schemes and their nutritional criteria vary making it hard to compare between marks (Emrich et al. 2013). Furthermore, there are more existing healthy products that do not carry the label but could qualify than products conveying the symbol, leaving their usefulness in helping consumers identify healthy foods as questionable (Emrich et al. 2013). Although a symbol approach to labelling might be less time consuming to process, consumers have little information on the set criteria for each label which can lead to overemphasising the benefits for health of a product (Hersey et al. 2013). When using a star rating system to demonstrate nutritional value in a university canteen it was shown that it did not have the desired effect on healthier meal choices (Hoefkens et al. 2011a). This was also found in a Dutch research study, which measured the effect of the use of a healthy choice logo on menu choice in worksite canteens (Vyth et al. 2011). Nevertheless, the presence of the label on foods was welcomed by health conscious employees (Vyth et al. 2011).



Figure 3.5 Swedish Keyhole Symbol and the American Heart-Check Mark (Hersey et al. 2013; American Heart Association 2014)

The aforementioned different ways of providing nutritional information range from detailed numerical description of nutrients in a table format to logos which direct towards healthier options (van Herpen and van Trijp 2011). Whilst the first of the systems is extensive and can be perceived as complicated and providing an overload of information, the latter is a quick indication which leaves questions about the nutritional value of foods. The way consumers

make use of these labels seems to depend on their goal; special dietary requirements or health motivation leading to a greater preference for more detailed information whilst symbols are perceived as an easy way of getting the most out of food labelling especially when time constrained (van Herpen and van Trijp 2011).

3.6 Quality Assurance as Means of Providing Food Information

In regards to food, quality can be defined in different ways, with different understandings of the concept between consumers and producers (Oude Ophuis and Van Trijp 1995). According to the BSI EN ISO 9001:2000, quality is defined as the “degree to which a set of inherent characteristics fulfils requirements” (Manning et al. 2006). Quality outlines the requirements needed to meet consumer expectations. Furthermore the aim of providing quality is to satisfy consumer needs (Peri 2006). The perceived quality approach is widely adopted and is based on quality relying on consumer judgement. Quality and its many aspects are versatile leading to a problem for consumers to assess its dimensions (Oude Ophuis and Van Trijp 1995). When trying to ascertain the quality of food, a distinction between search qualities and experience qualities are made (Nelson 1970). The distinction between these two quality properties is that search qualities can be established before consumption of the food, whilst experience qualities can only be determined after the consumption of the food. Darby and Karni (1973) have added credence quality as a further quality property (Fernqvist and Ekelund 2014). This type of quality cannot be established before or after consumption and has gained significant importance as consumers have difficulties assessing intrinsic qualities before making purchasing decisions (Fernqvist and Ekelund 2014). Some product attributes are credence attributes to the consumer while they are still detectable in the supply chain, therefore, the amount of credence attributes increases for products as they move down the supply chain, alongside the cost of evaluating these (Northen 2000). Credence quality can be established through analysis in a laboratory unlike a further quality aspect, *potemkin* attributes which often relate to production methods, that cannot be established through analysis (Tietzel and Weber 1991). Under this classification, organic produce which is a credence good can be analysed for the use of pesticides, while *potemkin* attributes such as fair trade or animal welfare cannot be verified through laboratory analysis (Jahn et al. 2005). Consumer information asymmetry increases with more effort needed on the side of the consumer to establish quality as shown in Table 3.2.

Table 3.2 Typology of Goods based on Information Economics.

Search attribute	Experience attribute	Credence attribute	Potemkin attribute
Qualities, which are known before purchase	Qualities, which are known only after consumption	Qualities, which can be observed by a single customer only to prohibitive costs, but buyers can rely on third-party judgements	Process-oriented qualities, which are hidden for third parties as well as for customers at the end product level
Freshness, appearance	Taste, shelf life	Nutrition, contamination	Animal welfare, fair trade

Source: Jahn et al. (2005).

Credence aspects in food can cover various product features such as nutrition content and production methods. In their review on credence factors in fruits and vegetables, Moser et al. (2011) found that credence and potemkin quality properties are mostly used in relation to health, production methods, social responsibility including environmental fairness, local food production and origin, certification systems and labelling (Moser et al. 2011). As credence and potemkin quality cannot be established by the consumer pre- and post-consumption, it is marketed through the use of labelling, branding and quality assurance (Lassoued and Hobbs 2015). Furthermore, quality is partly a social phenomenon influenced by social development and not resistant to change (Schuetz et al. 2014). This has been especially noticed in research on the developments in farming practices, where a shift towards higher animal welfare can be seen which is influenced not only by legislation but also by consumer demands (Thornton 2010).

3.6.1 Quality Assurance as a Proxy for Quality

For food producers, quality assurance is a way of ensuring food quality and safety in order to not only prevent liability claims but also build and maintain consumer trust (Achilleas and Anastasios 2008). Furthermore, it has been shown, that consumers are willing to pay a premium when quality assurance or labelling on a product provides information about credence quality properties (Herrmann and Schröck 2012). However, given the consumer willingness to pay for food products with credence attributes, there is the opportunity for malpractice within the food industry where, products can be mislabelled in order to promote credence factors (Baksi and Bose 2007). This opportunity can arise as meeting consumer demands can be costly to provide whilst being difficult to certify (Carriquiry and Babcock 2007).

In order to maintain consumer trust, quality assurance is often provided through a third party certification which independently verifies that producers meet a set of standards (Innes and Hobbs 2011). Set standards are put in place in order to promote desirable practices and to discourage the use of unacceptable practices within the food industry (Bailey and Garforth 2014). Therefore, quality assurance can define basic guidelines for food production or even act as a driver for an increase of standards like animal welfare whilst offering consumers a means of differentiation and aid in purchase decisions (Manning et al. 2006). Regulation of quality assurance differs between schemes with first party certifications regulated by the food operator, second party certifications regulated by purchasers and retail businesses and third party certifications which are audited by an independent party (Manning et al. 2006). The use of third party certification has increased over the past decades influenced by a globalised food system, which complicates government regulation leading to a shift towards monitoring of industry self-regulation (Hatanaka and Busch 2008). Furthermore, industry stakeholders argue that third party certification standards are set above minimal government standards to strengthen industry commitment to meet consumer demands and demonstrate transparency (Bailey and Garforth 2014). In the UK, third party certification bodies are subject to inspection by the UK Accreditation Service on behalf of the government (Bailey and Garforth 2014). Third party certification differs from public surveillance which oversees compliance with legal requirements and private schemes that audit supplier compliance with set standards (Meuwissen et al. 2003). However, not all third party quality assurance schemes and certification bodies globally are subject to accreditation, as in the USA some quality assurance schemes are not accredited (Hatanaka and Busch 2008). Consequently, this lack of harmonisation can lead to questions about the objectivity of third party certification (Hatanaka and Busch 2008).

Furthermore, there are differences in the scope of quality assurance labels, whilst some follow a farm to fork approach visible to the consumer, other schemes focus on a reduction of quality uncertainties between different actors of the food supply chain (Gawron and Theuvsen 2009). Business to consumer programs are usually communicated through the use of a logo on the end product and account for the majority of quality assurance in the EU (Gawron and Theuvsen 2009).

3.6.2 Cost of Quality Assurance

The food industry criticises the high costs which occur through governmental legislation and third party quality assurance and calls for a combination of standards to benefit both consumer and industry (Peck et al. 2012).

A German study investigated, whether empirical purchase data verifies the theoretical assumption that participation in a quality assurance program, increases consumer willingness to pay and therefore increases profitability for food producers in the dairy sector (Herrmann and Schröck 2012). Findings of this study indicate, that for the German market, organic quality assurance schemes, brands and well known third party certification can lead to an increase in willingness to pay of 10% or above (Herrmann and Schröck 2012). However, in order to sustain this strengthened quality, food producers incur higher production and marketing costs. Therefore, the accrued profit made from increased consumer willingness to pay needs to outweigh production and high marketing costs in order to make participation in quality assurance profitable for the producer (Herrmann and Schröck 2012). For food producers from the new European countries, adopting quality assurance systems is seen as a way of being able to enter new markets in other European countries (Gawron and Theuvsen 2009).

However, consumers who have got a high demand for credence factors in relation to the production of food, have shown greater use of government certification in comparison to third party certification or voluntary certification through for example supermarkets (Innes and Hobbs 2011).

3.6.3 Quality Assurance in the Meat Sector

Compared to other food supply chains, the meat sector is ahead in the development and application of quality assurance, influenced by the frequent occurrence of food scandals in this sector (Wognum et al. 2011). Given the number of different programs, most research investigating the benefits and disadvantages of quality assurance focuses on the meat supply sector. Outcomes especially underline that consumers assume that a high standard of food safety is provided to them and therefore, do not look for information on food safety or traceability (Angulo and Gil 2007). Although consumers show interest in information in regards to other aspects of meat production such as animal welfare, the abundance of schemes is confusing for consumers and fails to create trust (Gellynck et al. 2006). Furthermore, the complexity of systems can lead to misinterpretation and overload of information (Gellynck et al. 2006).

3.6.4 The Plethora of Quality Assurance Schemes

Currently, there is a proliferation of quality assurance in the retail sector and consequently, some products display more than one logo indicating compliance with quality standards which are sometimes also competing with product brands (Hassan and Monier-Dilhan 2006). Research has shown that an abundance of systems is confusing for the consumer and can lead to a devaluation (Hassan and Monier-Dilhan 2006). Retailers developing their own programs that run alongside other national or global quality assurance schemes cause a further proliferation of schemes. Examples of such labels are the red tractor logo in the UK and the QS sign displayed on meat in Germany. Consequently, the abundance of logos leads to an outcome, which is contrary to the aim of quality assurance. Consumers are left confused, whilst the food industry has to carry high additional costs.

The German organic market is represented through a variety of different governmental and private certification systems such as Bioland and Demeter that are outlined in Table 3.3. Nevertheless, the German organic market is one of the biggest in Europe. Whilst an overload of available labels can lead to consumer confusion, this can be reduced if the different schemes and associated logos are targeted at different consumer segments (Verbeke 2005). German consumers pay great attention to organic certifications when making organic food purchases, and have low levels of trust in products that do not display an organic certification label or display an unknown label (Janssen and Hamm 2014). In the UK, consumers of organic food products also have an awareness of organic certification labels such as the Soil Association's certification as described in Table 3.3 (Gerrard et al. 2013). From 2012 onwards, all packaged organic products which have been produced in the EU carry the EU logo for organic food according to the EU Regulation No. 271/2010 which replaced the former optional EU logo for organic food (Janssen and Hamm 2014). The aim of this regulation was to ease the proliferation of organic quality assurance and making organic products easier to recognise in all EU countries (Janssen and Hamm 2014). Although a logo used across all European countries has the potential to reduce confusion amongst consumers who are struggling to comprehend the different schemes, the introduction of this logo also carries problems. One of the problems associated with the introduction of the label is that consumers are already used to a number of well operating programs in the market and the occurrence of two quality assurance logos on one product can be confusing and thus reducing their trustworthiness (Hassan and Monier-Dilhan 2006). Furthermore, the standards, which the private systems known to consumers are governed by, are higher than the standards of the EU certification. Research into the acceptance of different types has found that similarly to the low trust of German consumers in

the EU organic certification logo, UK consumers also rate certification labels which they are used to, such as the Soil Association logo as shown in Table 3.3, higher than the EU organic certification logo (Janssen and Hamm 2011; Gerrard et al. 2013; Janssen and Hamm 2014).





Scheme	Soil Association	Demeter	Bioland	EU Organic logo
Logo				
Description	The Soil Association Certification is the oldest organic certifier in the UK, licensing around 80% of the organic food products on sale in the UK. Standards exceed the UK government's minimum requirements in regards to environmental and animal welfare. Additionally it exceeds standards set by the EU regulation and extends these in the areas of conservation and fish farming.	The holistic Demeter specifications exceed government mandated regulations in regards to animal welfare and additives. In 1994 Demeter became one of the first private ecological associations to adopt guidelines regarding the production of organic products. Established in 1928, the Demeter certification program was the first ecological label for organically and biodynamically produced food.	Bioland is the largest organic food association and most well-known organic specification in Germany. Its organic certification standards exceed EU minimum requirements in regards to pesticide use and animal welfare. Food products cannot be produced on a farm partially using conventional farming methods. The specifications were first communicated through a logo in 1978.	The EU organic logo is mandatory and was introduced by the Commission Regulation (EU) No 271/2010 of 24 March 2010. Its use is governed by Article 57 of Commission Regulation (EC) 889/2008 and replaced the use of the voluntary EU organic logo.

Table 3.3 Comparison of Organic Certification Labels Well-known to Consumers and the EU Organic Logo. Adapted from Gawron and Theuvsen (2009); Janssen and Hamm (2014); Gerrard (2013).

3.6.5 Quality Assurance in the Eating Out Sector

A large proportion of quality assurance programs operate on a Business to Business basis in the agrifood sector (BRC, Global GAP) and are generally not visible to the end consumer (Gawron and Theuvsen 2009). Therefore, out of the plethora of schemes that operate visibly to the consumer, the majority are mainly targeting the retail sector (Chrysochou et al. 2012b).

When eating out, quality assurance is rarely visible to the consumer. However, there are two programs in the UK that focus on communicating quality standards. The Taste initiative operates in restaurants throughout the UK promoting the use of regional food (Visit Isle of Man 2014). Catering outlets such as restaurants, cafes and visitor attractions offering local produce are given the Taste badge and are promoted on the regions tourism website (VisitScotland 2015). The 'Taste our Best' initiative in Scotland is jointly funded by the government and Visit Scotland; other uses of the Taste initiative include the Taste Lancashire and Taste Isle of Man (VisitScotland 2015). The underlying principle of this quality assurance scheme is the assumption that visitors prefer to buy food with local provenance (Visit Scotland 2015).

A further system which is directed at both private and public sector foodservice and workplace canteens is the Food for Life Catering Mark from the Soil Association that intends to provide "fresh food you can trust" (SoilAssociation 2012). Aiming to reflect high quality in areas that consumers care about, there is a focus on health, animal welfare and environmental impact (Ferns 2012). The Food for Life Catering Mark aims to raise standards of nutrition, food quality, provenance, and environmental sustainability (Melchett 2014). The scheme is accredited on different levels, therefore, catering outlets such as workplace canteens, school catering and restaurants can gain bronze, silver and gold levels of the catering mark (Ferns 2012). In 2014, one million meals per day were served in various settings carrying the Food for Life catering mark, including 7500 meals served in workplaces (SoilAssociation 2014).

Catering marks such as the Food for Life standard promote local food procurement that provides revenue to the UK food and farming industry which forms the UK's largest manufacturing sector. As such, effective procurement incorporating local ingredients can have a beneficial impact on the local economy. This aligns with the UK governments 'procurement pledge' to increase the amount of local ingredients sourced by assisting procurers to buy food that is nutritious and sustainably produced through their revised Government Buying Standard introduced in 2012 (Bonfield 2014). However, there is debate around the topic of local procurement with different understandings of the concept of local food, with some definitions

using food that is produced within a 30 mile radius to others having a more loose interpretation classing food produced within a county or a 100 mile radius as local (Waltz 2011).

3.7 Brands as an Indicator for Quality

Brands act as information signals about food products to consumers. Therefore, when being confronted with a lot of information, there is a reliance on brands that portray clear and positive associations to aid choice (Joubert and Poalses 2012). When making food choices the brand of the product plays an important role. In a retail setting, 72% of consumers taking part in a study evaluating what information consumers check when purchasing food products for the first time checked the brand of the product (Chan et al. 2013). Branding of food products is increasing in the retail of food products extending to the use of branding agricultural raw products such as salads and meat (Lassoued and Hobbs 2015). This expanding use of brands is used as a further quality cue to consumers (Lassoued and Hobbs 2015). Food brands are prominent in consumers everyday lives and numerous food brands have entered the list of the world's top 100 brands (Cooper 2013).

Although brands have a high priority in consumers' food choices, there are difficulties in defining the term brand. There is a lack of consensus between definitions regarding what constitutes a brand and its function (Jones and Bonevac 2013). A widely cited definition of a brand originates from the American Marketing Association which characterises a brand as: *"a name, term, sign, symbol or design, or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of the competition"* (Keller 2013). This definition offers two intentions of the brand and describes how a brand is portrayed through the use of a symbol or logo as well as its purpose to differentiate from other products. However, this definition is criticised for solely focussing on tangible aspects of a brand. Brands are thought to signal more than ownership created through symbols, which are criticised to not be sufficient in the establishment of a brand (Jones and Bonevac 2013). Therefore, intangible brand attributes need to be taken into account as brands are complex symbols of meanings, conveying up to six levels of meaning as shown in Table 3.4 (Kotler 1997).

Level of Meaning	Definition
Attribute	Brands convey physical product attributes
Benefits	Benefit to consumer beyond product attribute
Values	Brands says something about the producer's values
Culture	Brands express the culture of a country or region of origin
Personality	Projection of a certain personality through a brand
User	Suggestion of kind of consumer buying or using the product

Table 3.4 Six Levels of Brand Meaning. Adapted from: Kotler (1997).

Whilst brand attributes and benefits can be matched or copied by competitors, brand values, culture and personality have more enduring meanings (Kotler 1997). Therefore, brands need to be defined more holistically as *“a multidimensional assortment of functional, emotional, relational and strategic elements that collectively generate a unique set of associations in the public mind”* (Aaker 1996). In the context of food, a definition of branding needs to include an acknowledgement of the differentiating, tangible aspects of a brand as well as the holistic view recognising less tangible aspects such as personality, character, values and relationships. In the food sector tangible aspects such as differentiation and unique physical appearances are decreasing which is putting stronger emphasis on intangible aspects of a brand (Vranešević and Stančec 2003).

3.7.1 Brand Associations as a Signal for Quality Attributes

Brand associations relate to the information about a brand stored in consumers' minds, both positive and negative (Sasmita and Suki 2015). Hence, they can be seen as an information collecting tool, influenced by consumers' experiences with the brand, associations made from communications they received from the brand or social experience of the brand (Van Osselaer and Janiszewski 2001). Those associations stored through experiences with the brand, can be sensory or mental impressions (Chang and Chieng 2006). Additionally, associations related to a brand are sale independent, whereby quality signals are communicated that do not rely on a transaction or experience of products (Wilden et al. 2010). Therefore, associations can range from making assumptions about taste, quality to the origin of products (Elangeswaran and Ragel 2014). Brands can create associations with certain countries that are known to provide high quality and have well recognised history of producing a certain product well (Aaker 2010). Examples of brand associations with a country of origin are consumers' associations of Becks beer with Germany, a country with a history in producing beer and the associations of various brands of Champagne with France (Aaker 2010). Associations with the country of origin give consumers signals of authenticity with food products closely linked with consumer perception of authenticity (Assiouras et al. 2015). Furthermore, brand associations can link to a paternal image which is derived from the producing company's history (Laforet 2011).

Brand associations can be both intended and unintended, portraying effects of marketing on the consumer (Till et al. 2011). Consumers, whose decisions have been influenced by brand associations, can also form an emotional bond to certain brands, feeling connected and passionate towards the brand, establishing a connection between the brands and themselves (Assiouras et al. 2015). Brand benevolence, which communicates the firm's intention towards consumers, is used in absence of information to make assumptions about benefits such as social, environmental and health advantages that are associated with consuming products (Lassoued and Hobbs 2015). Product characteristics such as a positive impact on health can be conveyed through brands and consequently this association might be used by consumers when making purchases they perceive to be healthy (Chrysochou 2010). Consequently, rather than consulting other types of information provision, such as nutritional labelling or country of origin, consumers might rely on the associations and perceptions they have about a certain brand when making food choices. Furthermore, in the absence of food information, as frequently experienced by the consumer when eating out, brands can bridge the information gap. Therefore, brands not only help consumers to retrieve information but also to process it (Till et al. 2011).

3.7.2 The use of Brands in Workplace Canteens

In the setting of workplace canteens, where there is little nutrition information provided to consumers, contract caterers can make use of brands to convey a high nutritional quality. Furthermore, this can be achieved through the establishment of an own brand, which establishes associations with nutritionally balanced food and healthy eating. Examples of such brands are menu lines such as 'Vitalien' which is a brand established by Eurest, Compass' contract catering division for workplace canteens across Europe (Eurest 2015). Vitalien is a brand portraying health and fitness associations through cooperation with the German magazine 'Fit for Fun'. All participating Eurest workplace canteens offer a 'Vitalien' dish on a daily basis. Dishes are advertised to contain less than 500 kcal, are high in fibre and nutrients whilst being low in salt and sugar and prepared in a healthy way (Eurest 2015). Developed in partnership with the fitness magazine, the recipes are available for customers to prepare at home. Furthermore, the partnership with the magazine encourages increased physical activities through offering gym vouchers which are available in both the magazine and workplace canteens. Additionally, 'Vitalien' dishes are advertised in features in the magazine and on banners in the different canteens (Eurest 2015).

A similar brand was established by the contract caterer Sodexo, who has created the brand 'Vitality'. Vitality is a menu line that incorporates three key aspects; low fat and salt content,

improved nutritional profile and high vegetable content in dishes (Sodexo 2009). Information campaigns in each workplace canteen are used to increase the awareness of the various Vitality dishes offered (Sodexo 2009). Both brands, Vitalien and Vitality are aimed at consumers who put a high emphasis on healthy eating. Therefore, one dish per day is offered carrying the brand logo. However, appealing to their health conscious customers by offering a healthy branded dish also means that no nutritional information is available on either the branded or other dishes. Thus the customer has to rely on the associations of healthy being created through the brand when trying to make a healthy choice. From a managerial point of view this also means that the customer demand for nutritious food is met without having to provide further nutrition information, which reduces the administrative effort needed to provide accurate nutritional information on a varying food menu.

3.8 Food Information provided through Electronic Communication

Whilst for the past decades, the printed label was seen as the most common medium used for providing food information, electronic communication methods have advanced allowing consumers to get access to food information in a different way (Chan et al. 2013). Technology based applications can offer an alternative to more traditional information delivery channels. These alternative methods range from smartphone applications that provide dietary or product information to shopping cart scanning systems, which customers can use in a retail environment (Kalnikaite et al. 2012; Lowe et al. 2015b). Promoting interactivity, these different approaches to information provision open new channels of communication between food producers and consumers (Valdivieso-López et al. 2013). Smartphone applications and technology are present in consumers everyday life and offer opportunities for food business operators (Dospinescu and Perca 2011). The number of smartphone users is constantly increasing, 40% of all phones sold in 2012 were smartphones which was an increase to the previous year by 43% (Bian and Leung 2015). In the UK, 51% of adults owned smartphones in 2013 (Pearson and Hussain 2015).

Due to the developments in smartphone technology and the wireless internet, the demand for mobile applications is growing (Hee-Sun 2013). One of the possible benefits of these applications is that more personalisation can be offered reaching out to different needs of consumer segments (Lowe et al. 2013). Especially in regards to nutritional information provision, there is great consumer demand for personalised information (Stewart-Knox et al. 2013). From a business perspective, technology can be used to add value and specifically target certain consumer segments (Lowe et al. 2013).

3.8.1 Applications used in a Canteen Setting

Consumers are accustomed to using their smartphones to get access to information in many other aspects of their lives and a large amount of consumers use location based apps to get information about nearby restaurants etc. (Hee-Sun 2013). The app Tapingo is designed to enable students to order food from their university canteen, aiming to be convenient and time saving for students (Barfield 2014). An app like this could also play an important role in the workplace, where some employees refrain from taking a break because they feel that they have not got the time to do so. Another app used in both foodservice and the retail setting is called SmartAPPetite. This app tries to encourage people to eat local and healthy food. One of the benefits of this app is its personalisation; when downloading the app, consumers are prompted to provide information about their nutritional goals. Furthermore, there is a function to adapt how often notifications such as tips about seasonal and healthy food would like to be received. Another function of the app is to provide information about local retail stores and restaurants offering local and healthy food (SmartAPPetite 2015). However, both aforementioned apps are aimed at consumers in the USA and Canada and not available in Germany or the UK.

3.8.2 Challenges of Alternative Information Provision Systems

Although there are many benefits in providing food information in an interactive way, applications are most likely to be used by motivated consumers that are actively searching for information (Guthrie et al. 2015). However, certain apps that are currently on the market can enable simplified food choices such as information enhanced shopping lists (Guthrie et al. 2015). For many consumers in a retail setting, where a lot of smartphone applications are provided, mobile apps can become inconvenient given their low involvement in the food shopping activity (Kalnikaite et al. 2012). Therefore, apps need to carefully balance the difficulty of providing enough information whilst not overloading consumers (Lowe et al. 2015b). In regards to the design of the applications, user-friendliness is paramount in order to keep consumers engaged (Hebden et al. 2012). Furthermore, apps need to be of a high running speed which can cause problems if there is a reliance on an active internet connection (Hebden et al. 2012).

3.8.3 QR Codes used to Provide Food Information

A further way of providing food information to consumers is through Quick-response (QR) codes printed on the product packaging or menu. QR codes are two dimensional codes which can store a large amount of data on a small size label and have good readability even if the label is slightly damaged (Tarjan et al. 2014).

Food information stored through such a label is immediately accessible and can be easily read using a QR code reader on a smartphone (Chen et al. 2013). Throughout the products' life cycle, relevant information can be uploaded to a cloud database and transformed into a QR code at the last stage of production (Tarjan et al. 2014). Stakeholders involved in the provision of information are primary producers, processing companies, transport, retail and the end consumer, where each stakeholder represents a stage in the transformation of raw to final product (Šenk et al. 2013). Information shared throughout this cycle can be in the form of food safety information as well as nutritional composition, animal welfare, origin and information on the production methods used (Tarjan et al. 2014). The process of how data is stored throughout different stages of production and information delivered to consumers in a retail setting is visualised in Figure 3.6. Providing food information throughout the production chain signals transparency and openness to consumers and demonstrates that food producers are willing to share information which in return can have a positive impact on consumer trust.

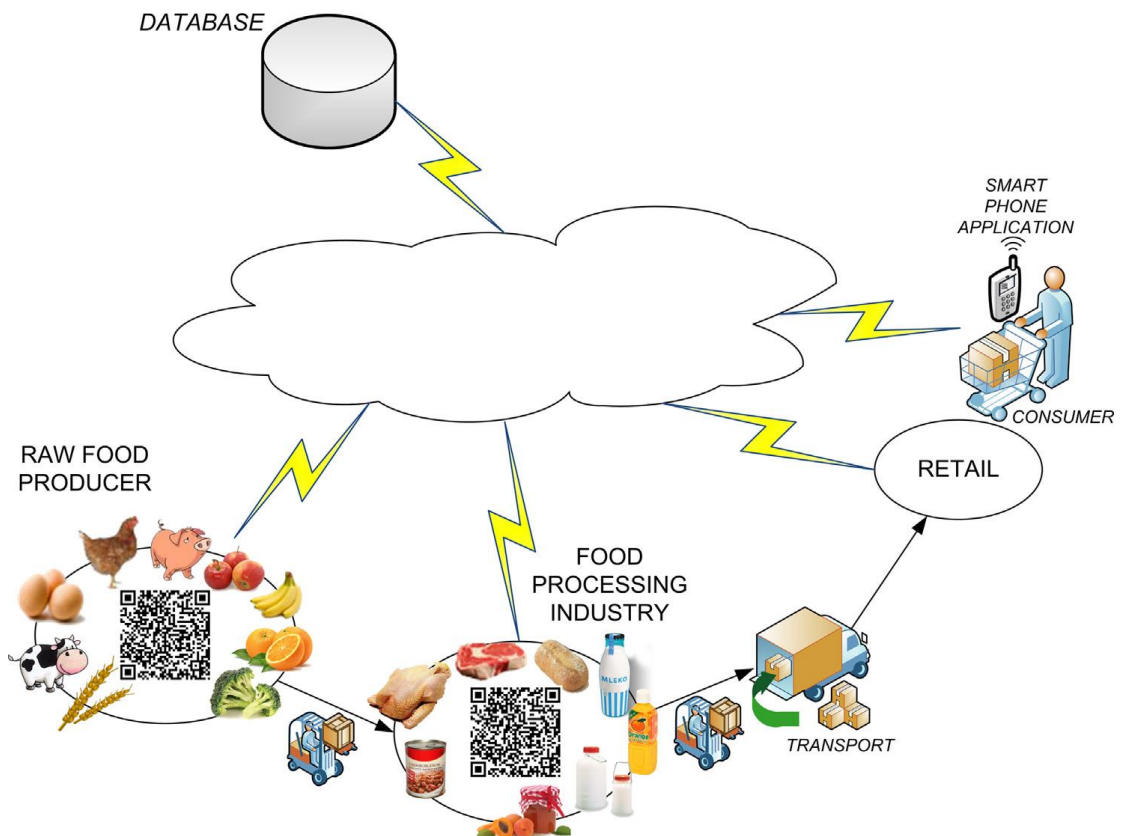


Figure 3.6 The Concept of Providing Food Information throughout different Production Stages.
Source: Tarjan 2014

Providing food information through QR codes can provide an advanced service that consumers already are acquainted with through exposure to QR codes in other contexts. Although the use of QR codes offers a convenient form of information provision to consumers, its potential use in providing information other than traceability information and nutrition information has not been fully exploited in a retail or eating out setting (Sanz-Valero et al. 2015). Notwithstanding, in Germany, information on quality assurance is already provided through the use of a QR code, and therefore has shown potential.

Whilst the alternative methods of providing food information offer huge opportunities of extending communication and extend currently used labelling approaches, not all consumers are comfortable with using technology (Chan et al. 2013; Lowe et al. 2015b). Although mobile phone applications and other technological solutions will most certainly play a greater role in both information provision but also in the way consumers seek information there is the question of cost associated with these technological advancements (Lowe et al. 2013). There is mixed evidence about the consumer willingness to pay for services like these offered (Lowe et al. 2013)

3.9 Relationship Marketing as a Way to build Trust between Industry and Consumer

Whilst traditional marketing approaches had the aim of attracting new customers, relationship marketing puts a greater emphasis on developing relationships with existing customers (MacMillan et al. 2005). Workplace canteens offer a suitable setting for the establishment of a good relationship with existing customers. In relationship marketing, strategies are personalised based on the knowledge of individual customers. Although in the past, consumers who bought products and services locally had contact with the owner of the business, globalisation has changed this business consumer connection (Baron et al. 2010). Nevertheless, many consumers seek a relationship and dislike anonymity and with a wealth of consumer information available, relationship marketing can close the gap between consumer and food producers and therefore reduce anxiety (Baron et al. 2010). There are three conceptual dimensions to relationship marketing as outlined in Figure 3.7.



Figure 3.7 The Conceptual Dimensions of Relationship Marketing. Adapted from: Wilson and Janatrania (1994).

The behavioural dimension of relationship marketing as a strategic tool is particularly relevant in the context of food and workplace canteens due to the currently asymmetric relationship between consumer and producer. The food sector is a highly unstable market, due to fluctuating commodity prices alongside recent food scares, which have affected consumer behaviour (Holm 2003). According to the food industry, quality standards suffer due to unpredictable consumers who are focused on price (Holm 2003). Consumers on the other hand, feel that food producers are to blame for the occurrences of food scandals and within this degree of ambivalence, both consumers and industry stakeholders are seeking interaction that reduces opportunistic behaviour of the other party (Holm 2003; Baron et al. 2010). The issue of building a lasting relationship in a setting where there is a great power imbalance has been mainly investigated from a B2B perspective, in the case of workplace canteens the contract caterer - employer relationship (Hingley 2005; Arnott 2007). However, the focus on the behavioural dimension of relationship marketing here is pertinent from a B2C perspective, the contract caterer-employee or workplace canteen guest. Relationship marketing as a strategy to demonstrate trustworthiness is appropriate for workplace canteens as customers have a strong desire for a relationship with their food providers and show willingness to play a more active role in their food provision which is also reflected through the increasing popularity of alternative production methods such as organic farming (Hughner et al. 2007). Morgan and Hunt (1994) have developed a model of relationship marketing based on commitment and trust as the key successors to a lasting relationship with customers. In their model, commitment is defined as the willingness to sustain a relationship and trust defined as certainty that the other party is predictable and respectable (Morgan and Hunt 1994; Adamson et al. 2003). Trust and commitment are both mediating factors in a cooperative relationship between food operator and customer where both parties are less inclined to use short term alternatives (Uzunoğlu and Misci Kip 2014). Hereby, commitment and trust, are placed between five antecedent variables and five outcomes as shown in Figure 3.8 which shows the application of the key mediating variables in the setting of workplace canteens (Morgan and Hunt 1994).

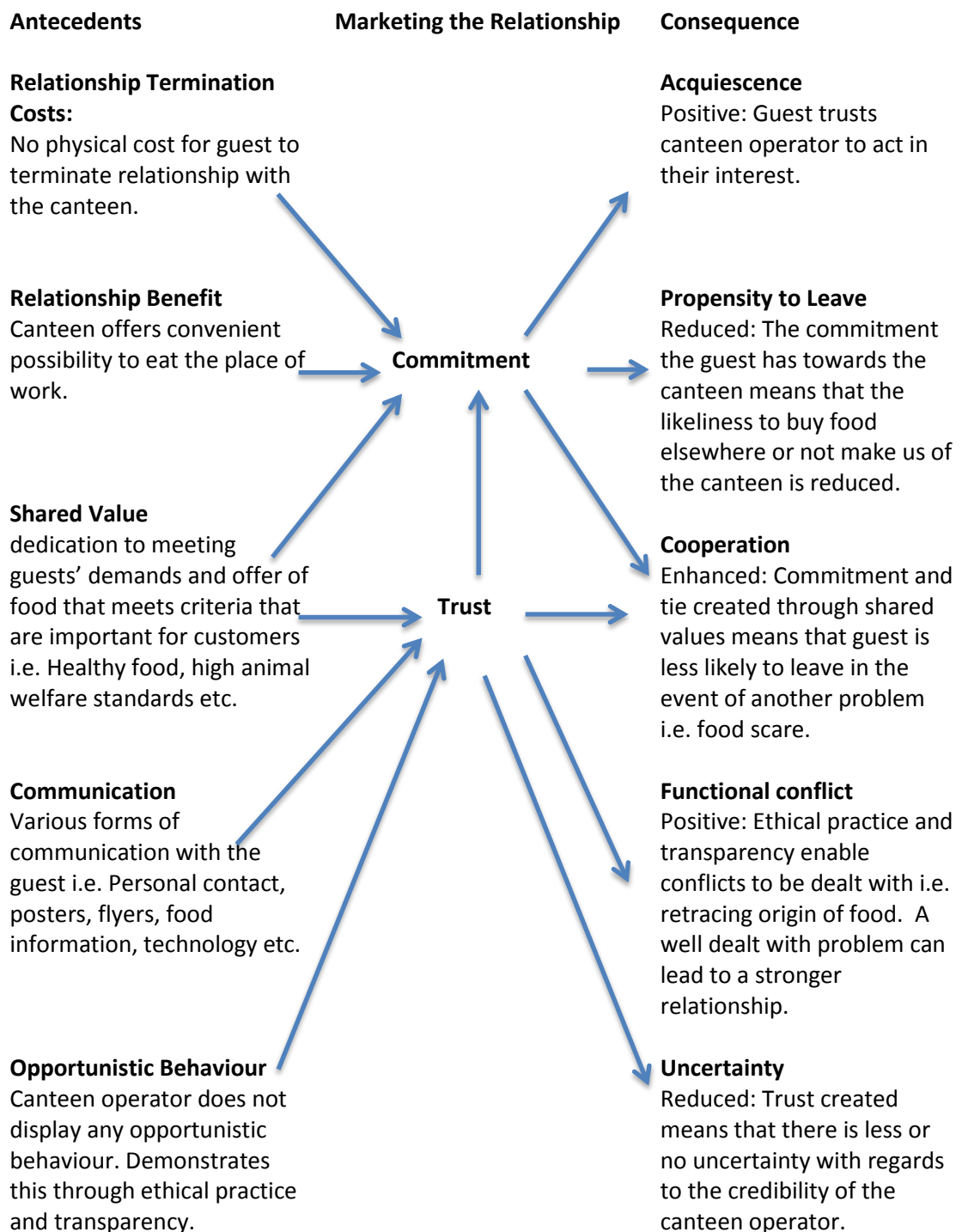


Figure 3.8 Application of the Commitment Trust Theory of Relationship Marketing to the Relationship between Contract Caterer and Canteen Guest. Adapted from: Morgan and Hunt (1994).

Not only has the impact of information that is currently provided to consumers declined, consumers trustworthiness following food scares and increased knowledge has also decreased. Therefore, contract caterers need to recognise that building long-term relationships with customers can be a successful approach to regain consumer trust (Jung et al. 2013). Furthermore, the aim of creating a relationship with their customers is the creation of value

that goes beyond the price versus quality trade off and is of benefit to both parties (Skarmeas et al. 2016). Consumer trust can be achieved through appropriate communication strategies, meeting consumer needs and the avoidance of negative reputation (Adamson et al. 2003). Relationships which are based on trust through shared values have a higher degree of commitment (Morgan and Hunt 1994). Organisations and businesses should invest in their interaction and communication process to facilitate their relationship with their customers and demonstrate their values (Grönroos 2007). From a consumer perspective, information sharing and social interaction delivered through technological approaches form an important part in creating value and improving trustworthiness (Jung et al. 2013). From a business perspective building a relationship based on trust is of importance for contract caterers in workplace canteens as not only are there more costs associated with acquiring new consumers, the setting of a workplace canteen also poses a limited number of possible customers set by the number of employees who are able to make use of the canteen (Rashid 2003).

3.11 Summary and Conceptual Framework

The findings from the review of the literature have been combined into a conceptual framework illustrating the role appropriate information provision can have on consumer trust in workplace canteens as shown in Figure 3.9. This review of the literature has also highlighted criteria of importance that consumers attach to food. These criteria are illustrated through food values, which are a set of stable values that influence food choice. Consumers look for food that meets their values and chose food products which they believe to maximise their utility. Trust is placed in those stakeholders of the food system that offer food based on shared values. Due to the credence character of many of these informational criteria of importance, consumers rely on trust in food producers. However, these factors have not been tested in workplace canteens. Further primary research is required to test not only criteria that people attribute to food but also ways of providing information to consumers in a meaningful way.

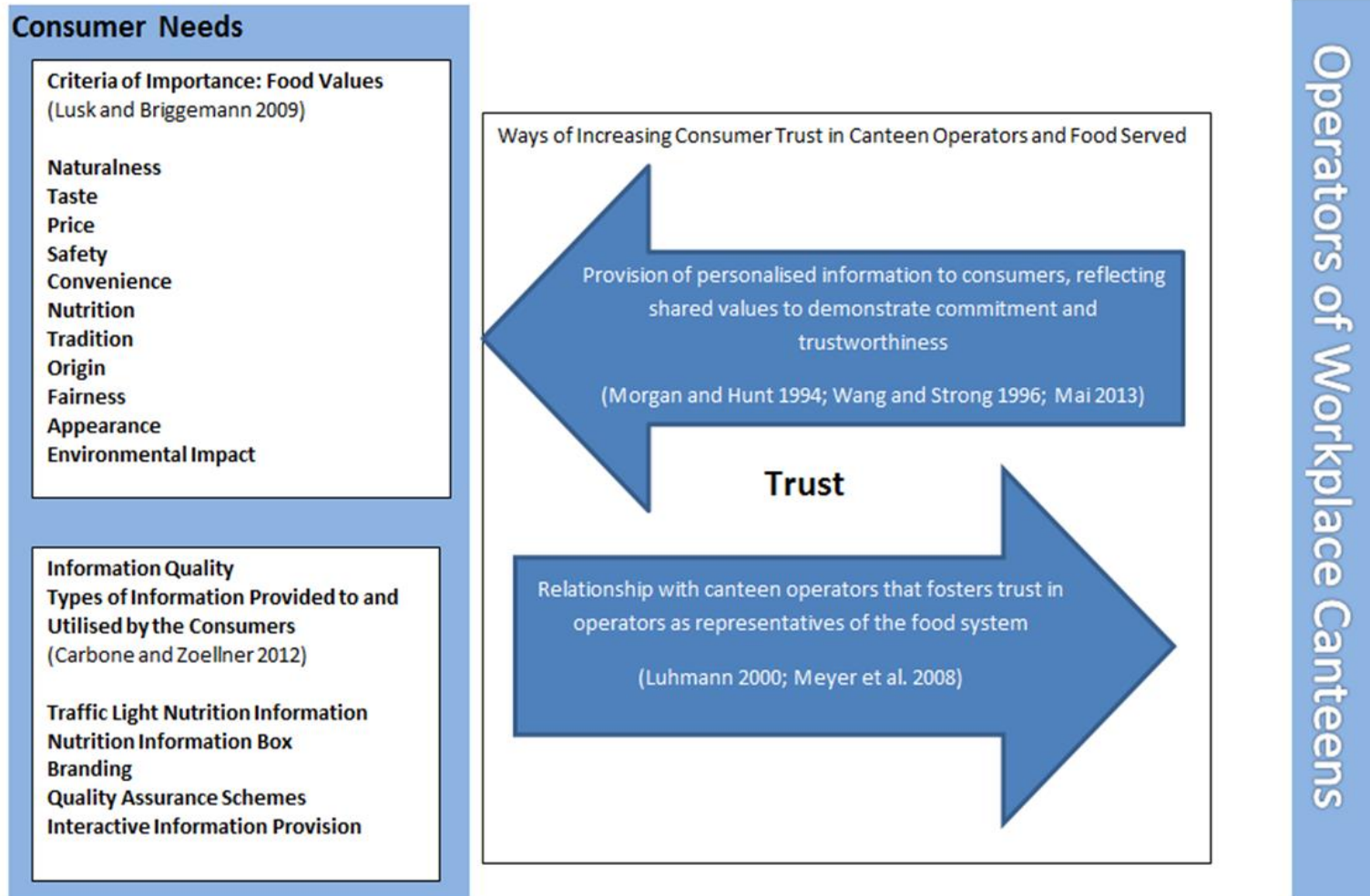


Figure 3.9 Conceptual Framework of the Role of Meaningful Information Provision which Relates to Trust in Workplace Canteens.

Chapter 4 Methodology

Introduction

This chapter outlines the methodological approach adopted for this primary research study. Firstly, research approach and its design are discussed. Following this, a schematic presentation summarises the key steps of the research project. Each stage of the research is discussed in detail and choice of methods for each study presented and justified.

4.1 Research Approach

Traditionally, there have been two strands of research; qualitative and quantitative which have been portrayed as being antagonistic (Feilzer 2010). This opposition of research strands is driven by different worldviews of positivism, where objective and value-free inquiry lead to the discovery of reality and truth which underpins quantitative research and constructivism, which underlies the belief that a complete objective analysis is impossible as there are multiple realities leading to a subjective inquiry underpinning qualitative research (Creswell and Plano Clark 2010). Based on the different ontological and epistemological understandings of qualitative and quantitative research paradigms it is argued that these are incompatible (Guba and Lincoln 1998). For Morgan (2007), methodology lies in between epistemology and methods meaning that the methodology needs to connect concerns of epistemology with concerns of the research design. Therefore, a top down focus on epistemology disconnects the understandings about the nature of knowledge from the methods used to produce it (Morgan 2007). Advocates of mixed methods however, endeavour to combine qualitative and quantitative research strands which in the above mentioned opposing worldviews seems impossible (Feilzer 2010). This has led to a debate about commensurability of qualitative and quantitative research methods when undertaking mixed methods research (Denscombe 2008). Whilst for some qualitative and quantitative research methods are incommensurable leading to a use of a choice methods of the two different paradigms in parallel, others build on similarities of both paradigms as a foundation for mixed methods research (Morse 2003; Onwuegbuzie and Leech 2005; Denscombe 2008). Mixed methods research has gained popularity and has been referred to as the "third research paradigm" alongside quantitative and qualitative research paradigms (Johnson and Onwuegbuzie 2004, p.14).

Moreover, advocates of the qualitative research paradigm have stated, that research paradigms can be mixed (Guba and Lincoln 2008).

Pragmatism offers a different worldview to positivism and constructivism concentrating on the problem to be researched (Teddlie and Tashakkori 2009). Within pragmatism, there is

acceptance that there are single and multiple realities which can be examined and finding a solution for problems in the “real world” is at the forefront of inquiry (Creswell and Plano Clark 2010). Furthermore, a pragmatic philosophical underpinning does not automatically lead to the use of mixed methods (Denscombe 2008).

The Pragmatist Dewey stated that no way of providing knowledge can be claimed to be the only way to provide the truth; different outcomes of studies are the result of engaging with the social world in different ways (Biesta 2010). Through the use of a combination of methods, research questions that cannot be answered using a singular method can be explored (Doyle et al. 2009). Methodological eclecticism is used in order to find the most appropriate methods to answer the research questions, therefore, the dichotomy between qualitative and quantitative research approaches is substituted by an array of possibilities incorporating both methodological dimensions (Tashakkori and Teddlie 2010).

This study uses a mixed methodological approach; although a focus is on the research question, which guides the path of enquiry, epistemological and ontological assumptions influence the selection of research methods in pragmatism (Morgan 2007).

Complete subjectivity and objectivity are theoretical concepts, which in reality are unachievable. Therefore, the pragmatic approach refers to intersubjectivity which aims to achieve a certain degree of mutual understanding amongst different cohorts: participants of the research and experts reading or reviewing research (Morgan 2007). Hence, communication and shared meaning are of importance in pragmatism (Morgan 2007). The concept of transferability is usually associated with qualitative research and concerned with how findings from one setting can be applied to a different setting (Teddlie and Tashakkori 2009). In pragmatism, transferability is of importance in determining the factors that influence the degree to which results can be applied to other settings (Evans et al. 2011).

4.2 Research Design

Given the asymmetry between consumer and canteen operators within the foodservice industry including their different views on food quality and consumer needs, a mixed methods design has been chosen. Driven by the research questions the decision has been made that a combination of methods is needed to address the research problem (Johnson and Onwuegbuzie 2004). This study uses a multi-level variation of the triangulation design, therefore, different methods are used to address different levels of society (Doyle et al. 2009). The food system is a multi-level system, where different actors play different roles (Ericksen 2008). The relationship between the different actors, consumers and industry, is strained with both parties acquitting themselves of responsibilities and blaming the other party for

opportunistic behaviour (Holm 2003). Advances in technology have ensured a stable and safer food supply through stricter controls of food production systems and efforts to minimise microbiological food spoilages (Michels 2012). In the view of industry stakeholders' the overall quality of food available to the consumer has improved (Michels 2012). However, consumers feel that there is an asymmetry between them and the food industry, where they lack information about food, are provided with misleading information and are offered food of a substandard quality (Michels 2012). Furthermore, it is felt by consumers that their needs are not taken into account and that the food industry is driven by profit (Holm 2003; Michels 2012). Whilst consumers criticise the lack of nutritional and quality information provided to them, industry stakeholders blame complex food information laws as barriers to information provision and development (van der Meulen and Bremmers 2013). The relationship between consumers and industry in the food system is complex and both parties need to be taken into account in order to reflect a more accurate representation of the problem in regards to information quality and trust in food when eating out. Therefore, both consumer and foodservice industry viewpoints will be investigated in this study, as shown in Figure 4.1, with the first and second empirical studies examining consumer needs and empirical study three focussing on industry stakeholder views.

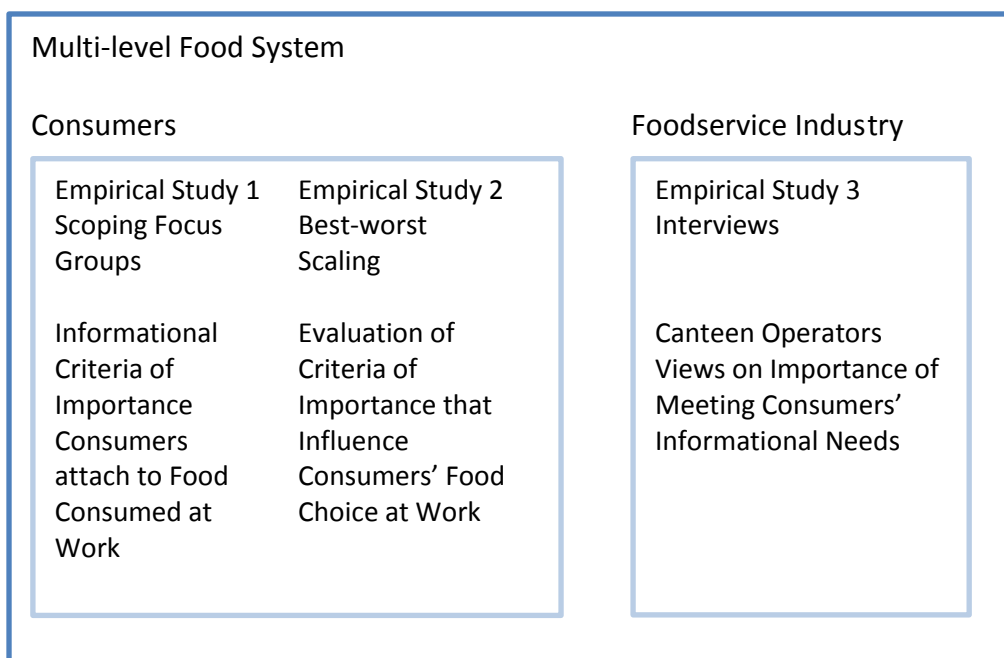


Figure 4.1 Incorporation of the Multiple Levels of the Food System in the Study.

Qualitative data informed the development of a large quantitative consumer study whereas, the views of contract catering managers will be assessed through qualitative interviews. Pragmatism is concerned with addressing power dynamics, thus the asymmetry between

consumer and industry cannot be improved pragmatically if attempts to advance the situation suit only those with the power to force an improvement (Seigfried 1996). Moreover, the part of the society for whom the problem arose, consumers in this case, must also form part of the research to address both levels (Seigfried 1996; Hall 2013). The three stage multi-level mixed methods approach chosen for this study aims to give a more complete account of values consumers attach to food incorporating both views of consumer and industry stakeholder (Denscombe 2008). Therefore, a sequential study design was chosen which allows the building on findings between different stages and the research will be carried out through three empirical studies. There is a gap in knowledge regarding consumer criteria of importance when making food choices in workplace canteens which has been addressed through the use of focus groups in empirical study 1. Research cannot be informed by theory or data alone, therefore, Morgan (2007) proposes an abduction-intersubjectivity-transferability approach, where through abduction the researcher moves back and forth between induction and deduction throughout the analysis. This abductive process was used in the design of this study, where the inductive results of empirical study one served as inputs to the deductive study two. The results of both studies were used to guide the stakeholder interviews which form empirical study three. The stages of the research project are outlined in Figure 4.2.

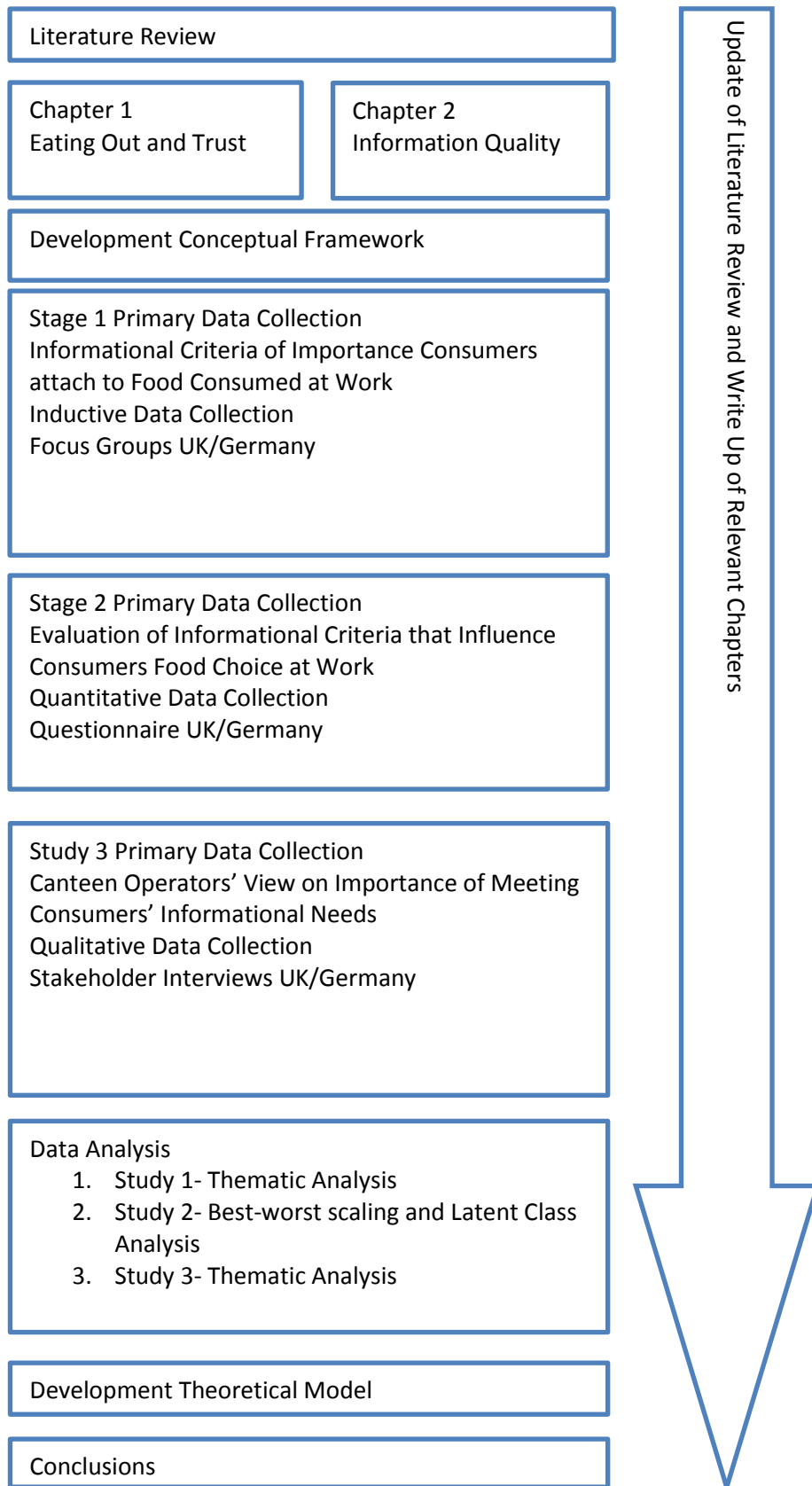


Figure 4.2 Stages of the Research Project

The research is undertaken in two countries: Germany and the UK, as these countries show different levels of trust in the food system and there are differences in the provision and use of workplace canteens. Additionally, both countries are growing economies that have a longstanding history in providing food at work. Germany stands at the forefront of food and beverage market developments, especially in regards to meeting the demand for healthy and safe food products (Germany Trade and Invest 2016). In Germany, the food and beverage sector including Business and Industry is the third largest industry (Germany Trade and Invest 2016). In the UK, food and drink sales in public sector and Business and Industry accounted for 2.1bn (6.5%) of total sales in the foodservice sector with most of this provision in the form of complete meals (Defra 2015). However, consumer behaviour has been found to be divergent between the two countries. Therefore, it is of importance to establish whether a harmonised approach to delivering food information can be taken in both countries by contract caterers. This is dependent on establishing whether or not the key informational criteria of importance and the preferred way of delivering food information are similar in both countries. Outcomes of this study can influence the way information needs to be communicated in each country in order to demonstrate transparency and increase consumer trust in the canteen operator and food served. This research study is designed to use the different perspectives of consumers and workplace canteen operators in Germany and the UK as market examples. As the researcher is bilingual with a good understanding of the foodservice industry and the role food plays in both countries, a cross cultural application of the research study was developed.

Focus Groups were the chosen method of data collection as it allowed insight into consumer criteria influencing their food choice at work. This study was undertaken during June and July 2014 in the UK and Germany.

The criteria of importance influencing food choice which were identified through the first empirical study alongside different ways of providing information to consumers were tested through the use of positivist deductive methods. Best-worst scaling has been chosen as the most appropriate design for the questionnaire as consumers are required to make trade-offs between different food criteria which gives a more accurate account of the food criteria that are most important to people, and hence identifies the role of trust.

Thereafter, an inductive approach was used to gain insight into contract catering managers' views on criteria of importance including ways of increasing trust in workplace foodservice. Interviews have been chosen for this study due to the small cohort of contract catering managers also taking into account their limited availability of time.

These three aforementioned described methods were employed in order to address the research objectives and research questions as outlined in Table 4.1.

Table 4.1 Research Methods and Research Questions

Methods	Objectives	Research Questions
Empirical Study 1 Focus Groups	Objective 2	What informational criteria are important to consumers when making food choices in a workplace foodservice setting?
Empirical Study 2 Questionnaires	Objective 3 Objective 4	What are the most important informational criteria influencing food choices made in workplace canteens? Are there differences in food choice criteria for different subgroups of the sample population? What ways of providing information are preferred by consumers? Are there differences in preferred ways of receiving food information for different subgroups of the sample population?
Empirical Study 3 Interviews	Objective 4	What do canteen operators believe is most important for their customers? How is food information communicated to consumers? How practicable is it to provide food information to consumers? What are the barriers and enablers of meeting consumer demands?

4.2.1 Data Analysis: Triangulation and Thematic Synthesis

An explanatory framework was used to bring together the findings of the three empirical studies. Thereby, a thematic synthesis process was followed. During this process, the results of each component study were used to generate new explanations and theory as shown in Figure 4.3. Data sets from each study were analysed inductively/deductively separately, moving abductively between data sets combining knowledge gained from each set into a multi-dimensional perspective where each data set is informed and enhanced by the others (Ivankova et al. 2006).

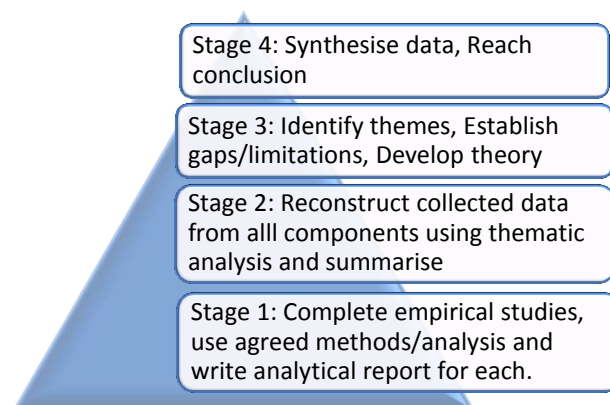


Figure 4.3 Explanatory Framework for Analysis. Adapted from: MacKenzie et al. (2014).

Throughout this process, data was validated using thematic analysis and concurrent triangulation. Reviewing the aims and objectives of the study helped to confirm in how far the objectives had been met (MacKenzie et al. 2014).

4.3 Empirical Study 1 – Focus Groups

Four focus groups were conducted in order to gain insight into criteria that motivate peoples' food choices in workplace canteens. The focus groups were run in Germany and the UK. The focus group probes were devised and piloted in a discussion with key industry stakeholders and deemed appropriate to use.

4.3.1 Focus Groups

To increase the reliability of the study, a protocol was followed that facilitated the repeatability and replicability of procedures. In these focus groups a moderately structured approach to questions was used (See Appendix 1). Prior to the start of the focus groups, refreshments were provided and participants were asked to read through the participant information sheet and sign a consent form (See Appendix 2 and 3). The focus groups began with an introduction outlining the aim of the focus groups and general rules for the discussion. These included that participants knew they could use each other's names throughout the audio recorded discussion, which were anonymised through participant codes during the transcription of the data (Doody et al. 2012). Participants were asked to engage into a discussion but to be polite and not interrupt other participants (Doody et al. 2012). A smaller number of broadly focused but open-ended questions about opinions on food at work and motivators of food choice were asked with the aim of getting an understanding of the participants' views on the subject (Morgan and Scannell 1998). These questions were followed by a discussion about important food criteria, which was achieved through a natural transition of the discussion. To conclude the group discussions, participants responses were probed and narrowly defined criteria of importance were discussed. These criteria were obtained from the previous parts of the group discussion (Morgan and Scannell 1998). In relation to sample size, recommendations range from having four participants to fourteen participants (Then et al. 2014). However, a sample size of six participants per group was chosen according to van Teijlingen and Pitchford's (2006) advice to select a enough participants to develop a discussion but not include a number of participants that hinders quieter ones from taking part. Participants were sampled using convenience sampling through contacts who were working in companies where a canteen for staff use was provided. One of the inclusion criteria for taking part in the focus groups was that participants had to eat regularly at their place of work which was defined as twice per week or more. The demographics of the participants are shown in

Table 4.2. Each of the four groups; 2 in Germany and 2 in the UK, lasted around 30 minutes and was audio recorded. Participants did not receive any financial reward for taking part in the focus groups but refreshments were provided as a gratitude for participants' time (Barbour 2008).

Participant no	Age	Gender	Occupation	Group (Country)
1	50	Female	Project admin	1 (UK)
2	31	Female	Online Marketing Manager	1 (UK)
3	41	Female	Lecturer	1 (UK)
4	52	Male	GRP Laminator	1 (UK)
5	32	Male	Lecturer	1 (UK)
6	22	Female	Event Manager	2 (UK)
7	23	Female	PR Assistant	2 (UK)
8	22	Female	Junior Accountant Executive	2 (UK)
9	23	Female	Performance Psychology Support	2 (UK)
10	24	Female	Operations Manager	2 (UK)
11	26	Male	Editor	3 (GER)
12	24	Male	Executive Assistant	3 (GER)
13	25	Male	Porter	3 (GER)
14	30	Male	Lecturer	3 (GER)
15	28	Male	Nurse	3 (GER)
16	24	Male	Physician	3 (GER)
17	25	Female	Physician	3 (GER)
18	24	Female	Personal Assistant	3 (GER)
19	25	Male	Care Assistant	4 (GER)
20	25	Male	Journalist	4 (GER)
21	25	Female	Web designer	4 (GER)
22	25	Female	Junior Art Director	4 (GER)
23	26	Female	Graphic and Communications Designer	4 (GER)

Table 4.2 Demographics of Focus Group Participants

4.3.2 Data Analysis

After conducting each of the four focus groups, data was transcribed by the researcher in order to visualise the characteristics of the recorded conversation (Kardorff et al. 2004). Transcription is a useful tool in data analysis, as it acts as a more visual representation of the data compared to the audio recording. Therefore, transcribing data can save time as re-playing of recordings can be time intensive (Gibson and Brown 2009). An unfocused approach to transcription was chosen which therefore, concentrated on representing the basic meaning of speech on the recording rather than including nuances of speech, overlap in talk or non-verbal forms of communication (Gibson and Brown 2009).

Focus groups conducted in the UK were transcribed in English whilst focus groups conducted in Germany were transcribed in German but not translated into English. Familiarisation through reading and re-reading was undertaken as a second step of data analysis (Braun and Clarke 2006). After transcription and familiarisation with the data, it was coded as a further part of data analysis, linking the data to ideas in a several cycles (Saldaña 2012).

Thematic Analysis

The data was analysed using thematic analysis. Therefore, when transcribing the data, the type of analysis chosen drove the attention to detail and pauses, sighs and interruptions were not included (van Teijlingen and Pitchforth 2006). Thematic analysis is a way of analysing data that applies a lower level of interpretation in contrast to other analytic methods such as grounded theory which apply a higher degree of complexity (Vaismoradi et al. 2013). The choice of thematic analysis had an effect on the way data was coded throughout the analysis. Accordingly, the data was analysed deductively in order to find common themes, differences and relationships (Gibson and Brown 2009). A priori codes obtained from the literature were used to establish a coding frame prior to the data analysis, however, further empirical codes emerged through analysis of the data (Gibson and Brown 2009). Themes were iteratively reviewed so that coding categories were adapted according to the data to achieve rigour (Barbour 2008). Interview languages were retained as well as initial codes in the original language, which were also transformed and merged into English, chosen to be the common language of analysis. Throughout the coding process, idiosyncratic aspects of codes were retained (ie. Gurkensache in German focus group referring to a German food scandal in 2011) to aid the understanding of the multiple-culture context. This decision was made to be able to facilitate further analysis where necessary and allow retaining both language and culture specific aspects (Sinkovics and Penz 2011).

The use of Computer assisted qualitative data analysis software

Computer assisted qualitative data analysis software, NVivo 10, was used for data analysis. The decision to use a qualitative data analysis programme was made based on its advantage of having a single location where data is stored, that is easily accessible and provides the tools for consistent coding schemes (Bergin 2011). There is debate whether using a qualitative data analysis programme distances the researcher from the data. However, the programme can only assist in analysing especially managing data rather than interpreting data (Bazeley and Jackson 2013). Therefore, after familiarising with the programme it was decided to use a qualitative data analysis programme. Using a computer assisted qualitative data analysis

software was especially found useful to have a good overview of the data when coding and helped to ease the process of iteratively reviewing codes (Gibson and Brown 2009).

4.4 Empirical Study 2 – Questionnaire

This second empirical study was designed to analyse factors that have been identified through the focus groups and the literature in order to test what informational criteria are most important to consumers when making food choices at work. Hereby, informational criteria identified through the focus groups were classed as criteria that are always important to consumers and criteria where the importance attached varies between different consumer profiles. Therefore, to test which criteria are most important for different consumer subgroups, the latter have been included for testing in the questionnaire as indicated in Figure 4. 4.



Figure 4.4 Selection of Criteria that have been included in the Questionnaire

4.4.1 Best-Worst Scaling

The questionnaire used for this study was based on best-worst scaling as part of choice based measurement as developed by Finn and Louviere (1992). The aim of best-worst scaling often referred to as maximum difference scaling or MaxDiff is the prioritisation of attributes (Lipovetsky and Conklin 2014). Best-worst scaling extends on paired comparison methods and discrete choice modelling (Lipovetsky and Conklin 2014). Paired comparisons as based on Thurstone's (1927) and Bradley and Terry's (1952) developments give information on the relative importance of a number of different paired options (Garver 2009). Discrete choice modelling which allows simultaneous presenting of various attributes to participants is based on the random utility theory developed by McFadden (1980) concluding that a preference for one object over another is a function of the relative frequency of which this object has been chosen over the other (Manski 2001). Best-worst scaling allows obtaining individual measures of a scale with known properties. Other than in paired choice and discrete choice tasks asking for the preferred choice amongst objects, best-worst scaling asks for the most (best) and least (worst) preferred options, providing more statistical information about the relationship between different attributes (Louviere et al. 2013). Within best-worst scaling it is assumed that individuals are able to make choices about the best and the worst items as extremes amongst a set of criteria provided to them in accordance with the adaption level theory (Louviere et al. 2013). Furthermore, via repeated rounds of different choice sets, it is possible to achieve a full ranking of items in a way that is feasible for participants to answer and make choices in the provided scenarios (Louviere et al. 2008). Choice sets presented to participants usually encompass three to six items; most commonly, four-item questions are used. A four-item questions implies six possible pairs, whereby other than in discrete choice experiments where only the most preferred option is selected, best-worst scaling achieves to give information about five of the possible six pairs as illustrated in Figure 4.4 (Garver 2009).

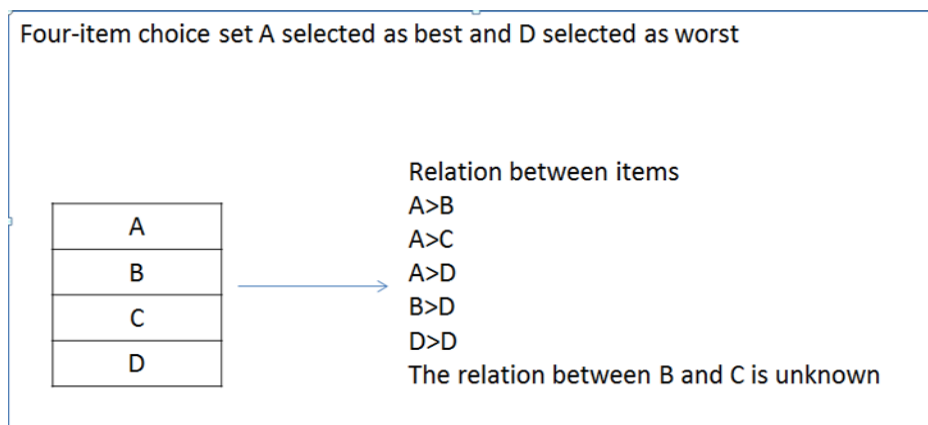


Figure 4.5 Information that can be drawn from a Four-item Choice Set.

Nevertheless, most researchers use rating scales or ranking to understand consumer preferences in food related research studies (Cohen 2009). Alternatively, paired choice methods as developed by Thurstone (1927) can overcome disadvantages associated with rating scales and ranking tasks. Table 4.3 gives an overview of different methods used to understand consumer preferences as discussed in Cohen (2009) and Garver (2009).

Table 4.3 Comparison of Different Methods used to Understand Consumer Preferences in Food Related Research. Adapted from: Cohen (2009) and Garver (2009).

Method	Summary	Critique
Rating Scales	Rating scales are widely used to study attitude or importance. Response categories range between two extreme positions, often divided by five or seven points that correspond to a verbal-numerical scale (Sarantakos 2013).	All aspects can be rated as important; does not necessarily reflect purchasing behaviour (Garver 2009). Subject to social desirability bias. Idiosyncrasies in response styles such as individuals using scales differently, cultural differences in scale use or verbal ambiguities in the use of labels (Auger et al. 2007; Lee et al. 2008).
Ranking Scales	Attributes have to be ranked according to task i.e.: from highest to lowest. There are as many ranks as there are attributes (Sarantakos 2013).	Participants can struggle to rank accurately when task includes a high number of attributes (Louviere and Flynn 2010).
Paired Choice	Two options are presented to participants out of which the participants chooses the most suitable (Cheng et al. 2013).	Includes a discriminable process on behalf of the of the participant (Cheng et al. 2013). Only gives information about the best choice (Garver 2009). Number of pairs to be judged by participants rapidly expands with increasing items (Cohen 2009).
Best Worst Scaling	Choice sets with approximately 4-6 attributes are shown to participants. Participants have to choose the most (best) important and least (worst) important item within each set.	Forced choice simulates market situation of food choices more accurately (Cohen 2009). Use of large number of attributes requires effort and attention on behalf of the participant, however, this also means that choice sets are evaluated more closely and accurately (Chrzan and Golovashkina 2006). Gives information about the relationship between the different attributes.

Best-worst scaling is a valid alternative to self-explicated methods, where participants directly rate or rank items on an individual basis. Although, asking participants to rate or rank the importance of a single item requires little effort on their behalf, it often fails to grasp priorities and therefore, results might lack in differentiation (Furlan and Turner 2014). One of the

benefits of using best-worst scaling is that it gives information about the top and bottom rated object in each choice set which provides more information about the rating of objects in each set (Louviere et al. 2013). Consequently, as the most and least preferred options are chosen, this method does not suffer from the scale bias associated with rating based scales (Loose and Lockshin 2013).

Best-worst scaling is specifically useful in cross-national research as undertaken in this study (Loose and Lockshin 2013). Previous research has found that participants from different countries make different use of verbal rating scales leading to scalar inequivalence (Baumgartner and Steenkamp 2001; Yao et al. 2003; Harzing et al. 2009). When making cultural comparisons or trying to segment the sample population across different countries, there is a risk of confounding scalar inequivalences with diversity in preference (Loose and Lockshin 2013).

Furthermore, questionnaires using best-worst scaling pose tasks that respondents find easy to answer and use (Marley and Louviere 2005). Given the disadvantages associated with other methods, it was decided that best-worst scaling experiments are a feasible alternative to advance the understanding of factors that influence food choice in a workplace foodservice setting (Cohen 2009).

When making choices, individual's cognitive processes are different and choices can be made in various ways. In a best-worst experiment, the most and least important or liked item, can be chosen together, all possible pairs can be examined and the most suitable chosen, or best can be chosen first prior to worst and vice versa (Marley and Louviere 2005).

4.4.2 Framework and Design of the Experiment

The framework and the basic model of best-worst scaling will be described in the following as outlined in Marley and Louviere (2005). Within a best-worst experiment, there is a definite set of choice options T , best and worst in this study, leading to $T \geq 2$. Within any subset of attributes $X \subseteq T$ with $|X| \geq 2$, $B_x(x)$ indicates the possibility of x being chosen as best in X . Similarly a different attribute's y probability of being chosen as worst in X is described through $W_x(y)$. Consequently, $BW_x(x,y)$ stands for the likelihood that accordingly attribute x is chosen as best in X and attribute $y \neq x$ is chosen as worst in X (Marley and Louviere 2005).

Therefore, $0 \leq B_x(x), W_x(y), BW_x(x,y) \leq 1$ and

$$\sum_{x \in X} B_x(x) = \sum_{y \in X} W_x(y) = \sum_{\substack{x, y \in X \\ x \neq y}} BW_x(x, y) = 1$$

Since best-worst scaling has been developed in the 1990's there have been adaptations to the original model and framework with some experiments only asking participants to rate the best or the worst options (Marley and Louviere 2005). Furthermore, the above framework of best-worst scaling is referred to as Case 1 best-worst Scaling and has been adopted for the design of this study. In a Case 1 best-worst experiment, the purpose of the study is to scale attributes on one dimension, importance in this experiment (Loose and Lockshin 2013). In further developments of best-worst scaling, referred to as Case 2, different attribute levels are scaled on one dimension (utility, liking, importance etc.) and Case 3, where different attribute levels are combined into choice profiles (Loose and Lockshin 2013). Although very similar to a full profile conjoint analysis, Case 3 best-worst scaling still asks respondents to choose the most and the least appealing profile based on the chosen dimension.

4.4.3 Structure of the Questionnaire

The questionnaire consisted of three parts: food criteria of importance, information provision and socio-demographic factors. Participants were presented with various choice sets which contained a set of food criteria or types of information provision. For each tetrad as shown in the example given in Figure 4.5 below the most preferred and the least preferred option had to be chosen (Street et al. 2005).

Most Important		Least Important
<input type="radio"/>	Animal Welfare	<input type="radio"/>
<input type="radio"/>	Value for Money	<input type="radio"/>
<input type="radio"/>	Organic	<input type="radio"/>
<input type="radio"/>	Environmental Impact	<input type="radio"/>

Figure 4.6 Example of One Choice Set shown to Participants in the Survey

Therefore, participants were required to make trade-offs between different criteria which reflects purchase intentions and can predict consumer behaviour more accurately than the use of rating scales (Adamsen et al. 2013).

In order to limit the amount of choice set presented to a participant a balanced incomplete block design was chosen (Adamsen et al. 2013). One of the disadvantages of this method is the design process of the choice sets; an increase in attributes leads to an exponential increase in possible choice sets (Vermeulen et al. 2010). However, the use of a balanced incomplete block

design can reduce the number of choice sets whilst each attribute appears equally often and is combined equally often with another attribute (Louviere et al. 2013).

In order to increase the results accuracy, 10 versions of the questionnaire were generated within the Sawtooth Software (Furlan and Turner 2014). One of the benefits of creating multiple versions is that the way attributes are combined within choice sets and the occurrence of choice sets increases which can reduce context bias and order effects (Furlan and Turner 2014).

The content of the questionnaire was structured in three main sections and is presented at Appendix 4.

Section 1 of the Questionnaire: Consumer Criteria of Importance

When designing best-worst experiments it is of paramount importance that attributes tested in the survey are relevant and therefore, criteria of importance and their definitions identified through the focus groups were used for the questionnaire design. This way it is ensured, that the criteria have a meaning to the participants (Bacon et al. 2008). In order to clarify the definitions of the attributes that were tested for, a list of attributes and their definitions were provided for participants. For this best-worst experiment, a balanced incomplete block design was chosen to reduce the number of choice sets and therefore burden for the participants. In best-worst experiments, an increase in attributes (J), that are tested in the experiment, lead to an increased number of choice sets that participants have to answer, 2^J (Louviere et al. 2013). A balanced incomplete block design, reduces choice sets whilst ensuring that each J attribute appear equally often amongst choice sets and co-appear equally often with the other $J-1$ objects (Louviere et al. 2013). The design developed for this experiment consists of $J=8$ attributes resulting in eight tetrad choice sets, where each attribute co-appears with each other and is shown four times across all choice sets.

Section 2 of the Questionnaire: Information Provision

This part of the questionnaire was designed to establish, what types of information provision are relevant to consumers. Therefore, a best-worst experiment was designed using attributes that were obtained from both a review of the literature and the analysis of the focus groups. It is important to get an insight into the preference of information provision, as information provided is only meaningful to consumers if it is understandable and relevant (Van Rijswijk and Frewer 2012). Consumers have a greater interest in food information to enable them to increase their control over the food they eat and make informed choices (Van Rijswijk and Frewer 2012).

In order to test the preference of different ways of information provision, a balanced incomplete block design similar to the experiment design testing different food criteria of importance has been chosen. It differs in the amount of choice sets presented to participants resulting from fewer attributes, $J=6$, that were of interest. Consequently, six choice sets containing triads were presented to participants. Each attribute co-appears with each other and is presented three times across all choice sets. The different ways of providing food information under investigation in this part of the survey are listed in Table 4.4.

Table 4.4 Different Ways of Providing Food Information to Consumers

Information Form	Description
Traffic Light Information	<ul style="list-style-type: none"> • At a glance nutrition information • Widely used in retail setting • Easily understood by consumers in Germany and the UK ((Borgmeier and Westenhoefer 2009) • Consumer familiarity through media attention (Van Herpen et al. 2012)
Information Box	<ul style="list-style-type: none"> • Can display information on nutritional content, allergens, place of origin etc. • Requires effort and numeracy skills to be utilised by consumer(Watson et al. 2013) • Consumers in Germany and the UK are familiar with this type of labelling and show good understanding of it (Grunert and Wills 2007)
Brand	<ul style="list-style-type: none"> • Used as heuristics for quality attributes to aid purchase decisions (Paasovaara et al. 2012) • Brand portraying image of being healthy can help to make quick decision rather than making use of nutritional information • Communicated through logos, brands allow consumers to make quick decisions that require less effort in processing information (Pet et al. 2010)
Quality Assurance	<ul style="list-style-type: none"> • Visually communicated through the use of a logo • Way of demonstrating certain quality criteria are met (Achilleas and Anastasios 2008) • Familiarity with quality assurance logos in both Germany and the UK in both retail and foodservice setting
Interactive Information Provision	<ul style="list-style-type: none"> • Way of providing information interactively through the use of smartphones or scanning devices • Can be accessed by those consumers who show an interest in food information (Nocella et al. 2014) • Can display larger amounts of information compared to menus
Footnotes	<ul style="list-style-type: none"> • Used in catering to display information on allergens, vegan and vegetarian dishes as well as additives

Section 3 of the Questionnaire: Socio-demographic Characteristics

For comparison of international research, a set of standards is mandatory in order to compare socio-demographic variables that are based on the same definitions and operate on functional equivalents. Standardisation can be achieved through either input harmonisation or output harmonisation: input harmonisation requires an instrument that is constructed before the data collection and harmonised, so that it can be used in all countries under investigation. Therefore, each variable tested for must be based on the same understanding of each measure (Destatis 2010). Input harmonisation has been chosen for the development of most of the socio-demographic variables in this questionnaire whilst output harmonisation has been chosen for the collection of information on educational attainment. For this question data is collected in a free format but classified through an international education classification system (Destatis 2010).

Sex and Age

Sex is a standard parameter in surveys, referring to the biological and physiological characteristics, while gender refers to socially constructed roles. Collecting information on the sex of a participant is important to cross-classify with other characteristics gathered (Eurostat 2007).

Age is one of the basic parameter collected in surveys, as it influences behaviour and values. Existing information on the situation and behaviours of specific age groups can be used to interpret data collected from the questionnaire (Eurostat 2007). Information on the age of participants can be collected in a number of ways. Participants can be asked to state their age or they can be asked to provide either full date or the month and year of birth (Wolf and Hoffmeyer-Zlotnik 2003). There is an advantage in the latter; people tend to remember their date of birth faster as it is a constant compared to their age and participants are less declined to answer with a wrong age making themselves appear younger or older (Wolf and Hoffmeyer-Zlotnik 2003). Consequently, participants were asked to provide their month and year of birth.

Country of origin

There is debate whether information on ethnicity should be collected in surveys, especially in international surveys. The interest in this type of information stems from evidence suggesting that migrants who have moved to more developed countries, have disadvantageous life chances compared to persons born in that country or migrants from more developed countries (Erikson and Jonsson 2001). However, the question of ethnic status is a sensitive issue and there are high possibilities of differing results in different countries due to different definitions of ethnic groups (Erikson and Jonsson 2001). Furthermore, definitions of ethnicity and

subgroups can only be understood in their national context (Aspinall 2007). Therefore, participants were asked whether they were born in Germany or the UK. For participants born outside the UK or Germany, a further question was asked to clarify whether they were born in another EU Member State or in a non-EU country. Asking participants for their ethnic background leads to high non-response. Hence, participants were asked for their country of birth rather than ethnic status. Additionally, international agencies such as EUROSTAT specified that there are no internationally recognised standards for ethnicity and related concepts (Aspinall 2007). Therefore, it is possible to ask for the country of birth rather than ethnic background (Erikson and Johnsson 2001). Asking participants for their country of birth is in accordance with the Conference of European Statisticians Recommendations for the 2010 Censuses of Population and Housing of the United Nations Economic Commission for Europe and the Statistical Office for European Communities (Eurostat 2007).

Dietary Requirements

There are certain determinants of food choice that are key drivers preceding the assessment of the eight informational criteria of importance evaluated in part one of this survey questionnaire. These criteria can be related to culture, health concerns as well as criteria based on attitudes, beliefs and perception of food. Cultural and religious influences lead to differences in habitual consumption of certain food and can influence restrictions and exclusions of certain food products. Health related concerns, such as allergies or following a restricted diet for medical reasons, are important criteria influencing food choices made. Attitudes and beliefs about food and diet have personal meanings and are powerful determinants of food choice and dietary behaviour for example, when following a vegetarian diet (Franchi 2012). Information was collected about dietary requirements that was related to religion, health reasons, allergies as well as giving respondents the opportunity to specify the type of dietary requirement.

Household composition and type

Household composition acts as a partial reflection of the social situations of participants in terms of shared expenses and dependent children influencing their economic situation (Eurostat 2007). Therefore, information was collected about the size and the composition of the household. Families and households are multidimensional concepts which change over time (Bien and Quellenberg 2003). For the purpose of this study, a household was defined as a dwelling unit and therefore, the option of a single person household included. The number of people living in the house should be easy to determine, however, it is necessary to be able to

differentiate between households where people are cohabiting and financially dependent on one another and house shares.

Employment status

The economic situation of a person is greatly influenced by their labour status with differences between income from part time and full time work (Eurostat 2007). This questionnaire used the workforce as a sample population, therefore other than proposed in the International Labour Office definitions of labour status, options such as unemployed, retired, currently not working due to sickness were omitted from the response options (Eurostat 2007).

Occupation

The type of occupation a person performs influences the financial situation of the individual and household (Eurostat 2007). In order to harmonise the measurement of occupations, the International Labour Office (ILO) of the United Nations has developed the International Standard of Occupational Classification (ISCO) with the most current version based on revisions made in 2008 (Budlender 2003). The ISCO classification is based on the nature of the job itself as well as the level of skill required (Eurostat 2007). This raises the issue in comparison between different countries where different skill levels are required for the same occupation. There are, according to the first level of the ISCO-08 classification, ten different occupations in employment which are complex for participants to understand (Eurostat 2007). Participants were asked to provide their job title, which then was coded according to the different categories in the ISCO 08 database. Although this increased workload through additional time needed for coding, the cognitive burden for the participants was reduced as they did not have to identify their occupation out of a long list of different possibilities (Tijdens 2010).

Educational Attainment

The importance of educational level of people for their social position is largely recognised (Eurostat 2007). Educational qualifications are used to predict outcomes in the labour market and are closely linked to indirect effects such as income which have an effect on food choice (Schneider 2011). Furthermore, educational attainments influence individual's attitudes through individual's knowledge and experience gained by exposure to norms and values in different educational settings (Schneider 2011). The question in the survey on the highest level of education has been developed based on the CASMIN (Comparative Analysis of Social Mobility in Industrial Nations) Educational Classification in International Comparative Research. When trying to obtain the highest level of education in a questionnaire, the high

degree of diversity between different national education systems needs to be taken into account in order to obtain comparable measures. Developed as part of the social stratification framework in the 1970s, CASMIN distinguishes between vocational and general certification at the compulsory, intermediate and maturity level of education (Brauns et al. 2003). Alternative methods of assessing the highest level of education are the UNESCO International Standard Classification of Education (ISCED-1997) and the Hoffmeyer-Zlotnik/Warner Matrix of Education (Hoffmeyer-Zlotnik and Warner 2007). CASMIN provides a good level of differentiation and validity across countries including Germany and the UK amongst other European countries (Schneider 2011). However, providing participants with all options available increases the cognitive burden on behalf of the participants. Therefore, it was decided to openly ask for the highest educational attainment which was then grouped according to the different classification levels.

4.4.4 Translation of the Survey

The questionnaire was drafted in English as a source questionnaire and later translated into German. Focus of the translation was not on the mechanical translation on a word for word basis but to capture the meaning of the different concepts that were part of the questionnaire (Kazi and Khalid 2012). Consequently, this was strongly influenced by results and terminology used by participants of the focus groups in the two different countries. Therefore, it was important to not only translate the meanings of the concepts but to tie them in with local realities and literary forms (Kazi and Khalid 2012). Back translation is a tool that is commonly used when translating questionnaires from a source language into a different language (Kazi and Khalid 2012). In the process of back translation, the questionnaire is translated from the source language into another language as the first part of the process. During the second part of the back translation process, the translation is reversed back into the source language by a different translator unaware of the first source language version (Brislin 1970). Although back translation is often used to increase the accuracy of the translation, it has been criticised as an insufficient criterion of success due to its aim to achieve the best possible translation, which most likely will not be equivalent to the first version (Russell 1991). One of the problems with back translation is that the translator is often not familiar with the theory and terminology used in the field of enquiry, and therefore strongly relies on dictionary translations with the underlying assumption that these will match the cultural understanding of the terminology used (Barger et al. 2010). Therefore, it was decided not to use back translation as a method to double check the accuracy of the translation. The translation of the questionnaire was strongly influenced by the terminology used in the focus groups.

4.4.5 Pilot Testing the Questionnaire

Throughout the development of the questionnaire, feedback from experts was sought to work on the right design of the best-worst experiment and to determine adequate socio demographic variables. One of the main drivers behind adapting the questions was the desire to decrease the cognitive burden of the questionnaire on participants (Debbie 2003). With online questionnaires, the commitment of participants to finishing the questionnaire is decreased compared to in person or telephone administered questionnaires (Scholl 2003). Furthermore, questions have to be limited to a minimum of amount necessary and of a low complexity so that respondents do not get fatigued answering questions and easily understand the tasks (Scholl 2003). It was deemed necessary to pilot test the questionnaire not only to test the robustness of the experiment design but also to assess whether participants had any difficulties understanding what they were asked to do in terms of the wording of the questions (van Teijlingen and Hundley 2001). Pilot testing can be used to increase internal validity of the research instrument through identifying ambiguities and discarding unnecessary questions if these do not give an adequate range of responses (van Teijlingen and Hundley 2001). Additionally, through identification of issues in the questionnaire, which are a result of pilot testing, response rates can be increased, missing data reduced and overall more valid responses obtained (Schwab 2005). The survey questionnaire was piloted during March 2015 with Participants similar to the sample population (n=5) in each country, Germany and the UK (Schwab 2005). After the pilot testing, the response burden of the participants was reduced. Therefore, for the questions relating to educational attainment and occupation, the multiple-choice answers were removed and a free text option for answers included. Furthermore, based on the suggestion of one participant, an additional response option was added to the question relating to the type of household.

4.4.6 Questionnaire Administration

Contacts were made with companies offering a workplace canteen to their employees, asking to distribute the online survey to their employees through their intranet. A non-probability sampling method has been chosen, whereby contacts have been made with an index person that distributed the survey further (Slattery et al. 2011). Participants were invited to take part in the survey through an invitation email sent out in June 2015 explaining the aim of the study and containing a link to the online questionnaire. Providing a link to an external webpage rather than replying to an email can give participants greater confidence in the anonymity of their responses (Sue and Ritter 2007).

Online administered surveys are widely used within social science research as they offer the advantage of fast turnaround as the outreach to participants via email is instant (Sue and Ritter 2007). Although there are several advantages to internet-based surveys, there are also challenges associated with this administration mode such as ignoring parts of the survey, submitting multiple times or careless responding (Ward and Pond 2015). However, using databases created and hosted by Sawtooth, provided a function whereby a survey cannot be submitted multiple times using the same IP address. Furthermore, due to the design of the best-worst experiment, responses can only be used if all choice sets have been evaluated and answered. Careless responding is also associated to survey length, which was considered when designing the online survey (Ward and Pond 2015). Administering the questionnaire online and through the intranet of participating companies ensured that the survey was sent out to a good size sample of the working population. The sample size achieved was $n=317$ and this is a commonly used sample size for studies using best-worst scaling (Sawtooth 2015).

4.4.7 Data analysis

Data analysis was undertaken in two steps; attribute importance was calculated on an individual level and this data was then subject to latent class analysis using Sawtooth Software (Cohen 2009). Best-worst data are elicited as choices and therefore, most commonly, a multinomial logit model (MNL) is applied to the observed pairs of best and worst choice frequency data (Jaeger et al. 2008). MNL is used to estimate the utility scores for each attribute tested for in the experiment (Lipovetsky and Conklin 2014). For best-worst experiments, an hierarchical Bayes (HB) application of MNL is seen as the gold standard for estimating individual level utility scores for best-worst Scaling experiments (Orme 2009). In Sawtooth software, which was used for the design and analysis of the survey, a rescaling approach is adopted where raw HB logit scaled scores are directly related to probabilities of choice, where the worst score for each individual is zero and overall scores sum to 100 (Orme 2009). This is achieved through exponentiation of raw logit-scaled parameters resulting in scores that are proportional to choice likelihood (Orme 2009). HB modelling is able to get individual-level results even from experiments that are not completely balanced or orthogonal (Furlan and Turner 2014).

However, there are other techniques leading to similar results as those obtained through HB (Orme 2009). In counts analysis, the amount of times a certain attribute was chosen as best and as worst is counted. The times an attribute is chosen as worst is subtracted from the number chosen as best (best-worst). Counts analysis can be performed at the aggregate level across the sample or at the individual level (Finn and Louviere 1992; Cohen 2009). This simple

score posits the scores on an interval scale. In order to standardise the scores obtained through counts analysis, they are divided by the number of times the item appears across all choice sets (Cohen 2009). Alternatively, a relative score derived from $\sqrt{\text{Best}/\text{Worst}}$ can be scaled on a ratioscale (Auger et al. 2007).

Overall, counts analysis appears to result in similar average scores compared to HB, especially when looking at the rank order of attributes (Orme 2009). This similarity of utility scores often leads to the understanding, that counts analysis for estimating rank order of attributes is suitable to be used in further analysis of datasets (Marley and Louviere 2005; Jaeger et al. 2008). Although scores derived through counts analysis appear similar to those derived through HB, counts analysis does not take into account the experimental design (Flynn et al. 2008). Given that two attributes have similar utility scores, counts analysis would suggest that these two items are equally attractive. However, only statistical methods of analysing best-worst data can identify how one attribute was chosen over another when they were presented together in one of the choice sets, something counts analysis fails to detect. Furthermore, when comparing the coefficient of variation, the standard deviation/population mean, of counts analysis and HB scores, it has been found that results appeared correlated between counts and HB, but HB score showed a greater variation across all respondents due to its granularity in individual level scores (Orme 2009). HB and MNL in comparison to counts analysis can utilise individual-level information and data from other respondents within the sample (Orme 2009). Therefore, data was analysed using the recommended HB and MNL models.

4.4.7.1 Latent Class Cluster Analysis

Latent class analysis was used to detect relationships between observed variables on the basis of a smaller number of latent variables (Rindskopf 2009). In this study the best-worst utility scores were subject to latent class analysis to identify the degree of importance the sample gives to the eight food criteria of importance and six different information provision types when making food choices in a workplace canteen. Latent class analysis can identify homogenous sub-groups of the sample population in respect to consumer preferences shown towards the tested attributes (Casini and Corsi 2008). Compared to other a priori segmentation techniques, latent class analysis of best-worst scores offers theoretical and practical advantages (Garver 2009). Cluster analysis as opposed to latent class analysis is data-driven and works with standardised data; latent class analysis however, is model based and true to the level of data employed (Cohen and Neira 2003). Different to cluster analysis, latent class analysis, does not assume that the data is linear, normally distributed and uses various

diagnostic criteria and fit statistics to establish the number of clusters (Chrysochou et al. 2012a). Furthermore, latent class analysis can be estimated with data obtained from different scale types which allows clustering of individual choice data in combination with socio-demographic data without changing the format of the socio-demographic data (Chrysochou et al. 2012).

Applying latent class analysis to best-worst data permits to reach a deeper level of data analysis, therefore giving more precise information on the heterogeneity of consumer behaviour when judging attributes under investigation (Casini and Corsi 2008). Latent class analysis was used to regress individual choice data against attributes that were part of the choice set alongside socio-demographic variables (Adamsen et al. 2013). Latent Class analysis was able to answer the research question: "Are there distinct groups of consumers with different preferences?" (Flynn et al. 2010). Furthermore, latent class analysis gave the opportunity to explore cross-country segments rather than merely using Germany and the UK as segments (Lockshin and Cohen 2011). This was especially important considering that this study analyses what factors are important when making food choices in workplace canteens. Evidence suggests, that the working population consists of a finite and identifiable number of groups that are characterised by homogenous importance for different criteria that affect food choice (Lockshin and Cohen 2011). The general latent class segmentation model is as presented as follows:

$$f(Y_{nj}|\emptyset) = \sum_{(S=1)}^S \Pi_S f_S(Y_{nj}|\varphi_S) \text{ with } \sum_{(S=1)}^S \Pi_S = 1 \text{ and } \Pi_S \geq 0$$

where S = number of latent class clusters, Π_S is the probability of belonging to a S latent class, Y_{nj} is the score for an n group of subjects in j observed attributes, $f_S(Y_{nj}|\varphi_S)$ is a conditional density of Y_{nj} given the vector of parameters \emptyset_S (Vermunt and Magidson 2005). Every observation can then be classified in the latent class (i.e., group) based on a higher probability of belonging to such a class.

Latent class establishes clusters which are probabilistic based on the importance of different attributes. Therefore, analysis does not provide exact cluster allocations of the response variables but rather provides weights for each variable for each found cluster solution (Cohen and Neira 2003; Lockshin and Cohen 2011). This is one of the advantages of using latent class analysis compared to a traditional regression analysis which is deterministic (Francis 2011). Different to a traditional regression analysis, latent class analysis allows to jointly evaluate the attributes under investigation. One method that also allows attributes under investigation to be jointly evaluated is fuzzy Qualitative Comparative Analysis (QCA), however, similar to

regression analysis this method of analysis is deterministic rather than probabilistic (Legewie 2013). Latent class analysis has been previously used to establish differences in dietary patterns for subgroups of the population as it has been shown that each segment differs in its preference structure for the criteria that are important when making food choices (Hancock and Mueller 2010). Each respondent can belong to more than one segment and the participants' probability of belonging to a certain segment is provided (Lagerkvist et al. 2012).

4.4.8 Validity, Reliability and Generalisability

The research findings of the early qualitative study helped to ensure the validity of the quantitative study as the questions were designed using consumers own vocabulary as obtained from the focus groups. Furthermore, the criteria of importance tested were those that emerged from the focus group analysis providing confidence in the relevancy of the different concepts. The questionnaire was designed carefully to minimise the likelihood of different interpretations. Therefore, definitions of each concept were provided prior to each best-worst experiment. These definitions were the working definitions of the concepts obtained from the focus group discussions. Pilot testing the questionnaire also ensured that participants understood the task of the best-worst experiment and the wording of the questions (Slattery et al. 2011). Best-worst scaling has been chosen as the underlying design of the survey after carefully considering other options such as rating scales and ranking which are known to suffer from scale bias and social desirability bias (Loose and Lockshin 2013).

Developing the survey using Sawtooth software enabled testing the robustness of the design of the best-worst experiments in part 1 and 2 of the questionnaire (Orme 2009). Special attention was paid to the one and two way frequencies of items being presented with each other to ensure that the design was robust and reliable. For the development of the last part of the questionnaire, an already validated set of questions was used that is a suitable instrument to collect information on socio-demographic variables (Destatis 2010).

The questionnaire was sent out to companies that have canteens available to be used by their members of staff. Therefore, the invitation email was only sent out to people who currently work in a place where they have access to a canteen. Additionally, using the intranet to distribute the questionnaires ensured that employees from different departments were able to participate in the survey.

4.5 Empirical Study 3 – Stakeholder Interviews

Semi-structured interviews with industry stakeholders such as contract catering managers were undertaken in an exploratory sample based on the need to gain insight into the importance of meeting consumer needs and establishing trust with the operator. The aim of the interviews was to obtain data drawn from participants' experiences in the daily operations of workplace canteens and their contact with customers as well as existing constructs of workplace foodservice in terms of providing food information to their consumers. Due to their variation of open ended questions and prompts, semi-structured interviews were chosen to be able to draw participants deeper into the topic under investigation (Galletta 2012).

Questions and consequently the interview guide were developed in a way to direct the study rather than to predict possible answers (Swift and Tischler 2010). Therefore, open-ended questions were used to encourage participants to share their experience and knowledge (See Appendix 5). The interview guide started with some questions about demographics before a broad question prompted participants to start speaking from their own experience (Galletta 2012). Therefore, this question was an open ended question about their catering outlet of which the answer could not be anticipated prior to the interview (Galletta 2012). Considering the aim of the opening question to establish rapport, the question was as aforementioned open ended however, still of a more descriptive nature (Willig 2013). Furthermore, the interview guide consisted of a list of questions, which were addressing several topics such as the importance of different consumer criteria of importance and the feasibility of providing food information. These questions aimed to get structural and evaluative information phrased in an open ended format to encourage rapport (Willig 2013). However, the placement of these questions and the probing of responses were more flexible and influenced by the answer of the opening question (Draper and Swift 2011). Throughout the interview, the flow of the narrative was guided through probes relating to the research topic (Galletta 2012). Altogether, the interview was led as a conversation which called for the interviewer to be engaged and interested while suspending judgement to be able to probe for further information and elaboration in a way that is perceived as less interrogating (Draper and Swift 2011).

4.5.1 Sampling Approach and Sample Size

Contrary to sampling for quantitative research, where the aim is to generate data from a sample that is statistically representative and of a size large enough to minimise sampling error, in qualitative research, the aim is to generate data that is theoretically generalisable. Therefore, the main focus was not on a large statistically representable sample but on an

effective sampling strategy (Draper and Swift 2011). A non-probability approach to sample selection was taken in order to gather a cross-section of workplace canteen managers, involved in workplace foodservice (Denscombe 2010). The use of purposive sampling was chosen in order to recruit participants who were able to draw on experience and expertise within workplace canteens (Draper and Swift 2011). The sampling frame used for this was provided through contacts of Solutions for Chefs and Bournemouth University (Davies 2007). Contacts were made with contract caterers who acted as gatekeepers and passed on details about the study to their canteen operators, who had been identified as possible participants. The inclusion criterion was that these canteen operators would manage a canteen in a workplace, whereby no exclusion criteria regarding the size and amount of meals served daily were made. One of the challenges, was to determine the sample size of participants to be interviewed. Hereby, it was important to gain a sample large enough to answer the research question but not of a size where the amount of data generated restricted an in-depth analysis (Draper and Swift 2011). Within this sampling frame a purposive sample $n=10$ was selected with 5 participants from each country (Germany and UK). This sample size was deemed appropriate to gather a representation of views of contract catering managers (Baker and Edwards 2012). Furthermore, the approach of a predefined sample size meant that sampling, data collection and analysis were treated as a linear process and it was evaluated afterwards whether further interviews were needed for theoretical saturation (Baker and Edwards 2012).

4.5.2 Pilot Interviews

Interview questions were designed to encompass the different aspects of the research questions. The formulation of the questions was a result of careful consideration and reflection of alternative versions prior to the interview (Willig 2013). However, questions asked had to be worded in a way that made sense to the participants (Draper and Swift 2011). Pilot testing the interview did not only help to refine the questions but also the procedure of the interview (Creswell 2013). Furthermore, the pilot test was a way to establish whether the interviewee had sufficient knowledge to answer the questions and whether the phrasing of the questions was relevant and correct industry terminology is used (Taylor et al. 2006). Therefore, the interview guide was pilot tested with a contract catering manager in July 2015. Some terminology relating to staff canteens used in the questions was adapted following the pilot interview. It furthermore, confirmed that the questions were relevant and necessary to get sufficient insight into caterers' perceptions of consumer demands, different ways of providing food information to consumers as well as challenges associated with this.

4.5.3 Administration of the Interviews

Traditionally, conducting phone interviews has been viewed as a less attractive alternative to face-to-face interviews (Novick 2008). One of the reasons for this is the problem that there is an absence of visual cues which consequently, is thought to result in a loss of nonverbal and contextual data (Novick 2008). Nevertheless, while the conversation is perceived less personal it can also reduce visual power imbalance between interviewer and participant (Vogl 2013). Furthermore, data was subject to thematic analysis and therefore, the study was not designed to incorporate and pay attention to nonverbal data. Therefore, the choice of conducting telephone interviews was not seen as a compromise to conducting face-to-face interviews but as an appropriate choice in that more participants were able to be contacted (Irvine 2011). Additionally, conducting phone interviews meant that participants were more flexible in regards to their logistical arrangements. Participants were relaxed on the phone and willing to answer the questions asked. Comparison of the data gained through phone interviews and face-to-face interviews has shown that both are deemed appropriate to collect rich data (Irvine 2011). After careful consideration, it was not anticipated that face-to-face interviews would lead to a greater depth in participants' answers and richer data. The contrary was found as participants made clear effort to describe the operation of their onsite catering outlet in great detail in the absence of visual contact. Whilst some of the advantages of conducting telephone interviews are that participants are more inclined to provide sensitive data this can also be a disadvantage as shown in Appendix 6. However, the focus of the research project did not require sensitive information that was not able to be shared through a phone conversation. The advantages and disadvantages of phone interviews are outlined in Appendix 6.

4.5.4 Thematic Approach to Data Analysis

A thematic approach was used for the analysis of the data. As a first step of analysis, the audio recordings were transcribed near verbatim which also improved the familiarisation of the data (Fade and Swift 2011). Throughout this step data was anonymised (Fade and Swift 2011). Irvine (2011) describes the different processes of thematic analysis as a way of data reduction as illustrated in Appendix 7. The audio recording of the interview is the starting point containing the largest amount of data. Throughout the near verbatim transcription process, data is reduced through discarding of utterances and less emphasis on the interviewer (Irvine 2011). Furthermore, transcribing data is always associated with some form of translation, therefore, it is not a sole mirror image of the interview (Willig 2013). Through synthesis, lengthy paragraphs of transcripts are formed into more succinct accounts of the data. The

reduction of data throughout the analysis is influenced by the degree of in-depth analysis applied to the data (Irvine 2011). Data presented in reports and publications are only a small amount of data gathered through qualitative research methods and influenced by word limit and focus of the dissemination of the findings.

Thematic analysis can adopt an empathic or suspicious approach, with the empathic, manifest path focussing on portraying the explicit content of the participants' views or the suspicious, latent way drawing on the researcher's interpretation of participants' accounts (Willig 2013). Within both of these approaches data can be coded inductive or deductively (Willig 2013). However, inductive and deductive coding is not mutually exclusive. It is possible to apply a combination of deductive and inductive coding to the data as used in this study. Hereby, an a priori template was used to aid the organisation of data whilst also anticipating novel themes to emerge from the data (Fereday and Muir-Cochrane 2006). Consequently, a priori and new themes were combined to generate a round thematic description of the data (Fereday and Muir-Cochrane 2006). Furthermore, the sole use of inductive coding, has the potential to be influenced by researchers subjectivities (Bryman 2012). Therefore, data coded deductively and inductively was grouped into themes which were refined to be distinct and fully supported by the data rather than reflecting the questions of the interview schedule (Braun and Clarke 2006).

4.5.5 Quality of the Data Analysis

In terms of assessing the quality of the data analysis of qualitative research there is debate, whether research should be evaluated by the same criteria used to appraise quantitative research (Pilnick and Swift 2011). While the data obtained through the interviews is not empirically generalisable, findings were not only used to understand different concepts of workplace foodservice but also to develop themes and theoretical propositions which can be of relevancy to other settings (Swift and Tischler 2010). Interviewing canteen operators provided their views and perceptions of workplace foodservice which was presented from a different angle than the view of the consumer with both perceptions of the truth being equally important and present. Taking this premise, it is difficult to evaluate qualitative research using quantitative criteria (Pilnick and Swift 2011). It was suggested that by trying to increase the reliability of qualitative research, an artificial consensus is forced, that is elaborated on at the expense of the meaningfulness of the findings (Sandelowski 1993). However, Mays and Pope (2000) challenge this view by arguing that criteria of assessing quality are similar to those used in quantitative research, yet they differ in their operation. In terms of evaluating the

objectivity of interviews, Kvale (2007) suggests that this can be done through determination of issues of bias, inter-subjective consensus, appraising the adequacy of the interviewees and the interviewees' abilities to object to parts of the interview.

One further key criterion is to reflexively review whether the method of semi-structured interviews was appropriate to answer the research questions (Pilnick and Swift 2011). This approach was taken through the following steps. Reflexivity is an important consideration in qualitative research (Daymon and Holloway 2011). Therefore, the researcher must make conscious effort to understand and reflect upon their active role in driving and shaping their study (Guba and Lincoln 2008). Researchers have an influence on data gathered despite efforts to minimize bias from the data collection process (Bulpitt and Martin 2010). Both empirical study 1 and 3 were not a neutral exchange of asking questions and getting answers but an active process which has led to a contextually bound and mutually created narrative (Fontana and Frey 2008). Reflection on the interview situation helped to assess whether interviewees were consciously or unconsciously encouraged to construct their answers in a way that constitutes of an unbiased version of their experiences (Flick 2008). Peer debriefing through regular meetings with the research supervisors, who were not involved in the process of data collection, helped to discuss blind spots, working hypotheses and trustworthiness of the findings (Lincoln and Guba 1985). Furthermore, reflecting on whether the research has achieved familiarity with the topic under investigation and logical links between data gathered and assumptions made helped to assess the credibility of the findings (Flick 2008). Additionally, the overall process was evaluated in terms of the originality of the data by reflecting on the social and theoretical significance of the work (Flick 2008).

4.6 Evaluation of the Methodological and Analytical Approach

Throughout this thesis, a transparent and detailed account of the design, data collection and data analysis has been provided. Methods were chosen based on their appropriateness for meeting the research aim and present an achievable solution to explore and examine concepts and relationships between these. The development of informational criteria of importance and ways of providing food information through the use of focus groups and secondary research and the consequent testing of these concepts using a survey questionnaire as well as the interviews with canteen operators were all undertaken to improve the reliability and validity of the study.

Therefore, in the following, this study is evaluated based on the separate elements of the qualitative, quantitative and on the mixed methods approach chosen in regards to validity and trustworthiness as proposed in Dellinger and Leech's (2007) Validation Framework.

4.6.1 Qualitative Data Approach: Elements of Construct Validation

Empirical Study 1 and 3

Focus groups with consumers and semi-structured phone interviews with canteen operators both analysed using thematic analysis were considered most appropriate, analysing data inductively and deductively in order to find common themes, differences and relationships. When assessing the effectiveness of the research undertaken, the qualitative research studies have been evaluated considering several factors.

In the following, consideration has been given to the concept of validity in terms of credibility, authenticity, criticality and integrity, congruence and sensitivity as proposed by Dellinger and Leech (2007).

Credibility and Authenticity

In accordance with good practice, research was conducted following strict ethical requirements. Therefore, the interaction with both consumers and canteen operators provided direction, suggestions and data. The findings of empirical study 1 and 3 were shared with those participants who showed interest but were not discussed. Hence, to achieve objectivity and prevent bias, discussions with research supervisors and the application of different research methods in the different studies were used to triangulate the findings from all studies. Throughout, every attempt was made to disallow any personal values or theoretical inclinations in the conduct, analysis and interpretation of the research process.

In both empirical study 1 and 3, consumer and canteen operators' representations were explored until saturation of data was reached. Exploratory focus groups enabled to gain an understanding of consumers' perception of quality of food served which helped to identify criteria of importance that are attached to food within the setting of workplace canteens. Ten semi-structured phone interviews were conducted with canteen operators to identify their perception of customer requirements and ways of meeting these to establish trust in food served at work. Data of both studies were collected using a digital voice recorder, transcribed verbatim and checked for accuracy. It was important to have a rounded approach that includes the perspective of both consumer and industry. The results chapter presents an accurate reflection of these accounts. Furthermore, with the data completed with employees who eat in their workplace canteens as well as canteen operators who partake in the daily operation of workplace canteens, the interpretations of the data presented in Chapter 5 are a credible representation of reality.

Criticality and Integrity

This research was approved by Bournemouth University's Ethics Committee prior to its commencement of data collection. Throughout the different studies, interpretations made, which are provided in the discussion in Chapter 6, have been undertaken by critically reviewing the research process as well as the data analysis in a way that is transparent, systematic, logical and grounded within the data. This allowed to identify any ambiguities and the different methodological approaches used helped to minimise threats of biases.

Throughout this research, the conduct of each study adhered to Bournemouth University's ethical guidelines and principles. As part of this, all participants who partook in this research provided informed consent. Each study was designed in a way that the participants' need for confidentiality was respected and mindful of the intrusion that the research process entailed. This included that the online questionnaire was distributed by employers through their intranet and therefore it was most likely that employees filled in this questionnaire during their work hours. Furthermore, care was taken that the interviews with canteen operators were undertaken at a convenient time and via the phone so that greater flexibility was ensured. Maintaining this integrity was ongoing throughout the research process whereby a pragmatic stance enabled responsiveness to all the circumstances of the research and its participants.

Congruence

Throughout this research methodological congruence is evident. Identifying the research problem of a lack of trust in the food served in workplace canteen following recent issues in the food chain and a lack of information provided when eating out, provided an opportunity to locate the current study as an opportunity to further develop and expand current knowledge. The methodological design enabled a greater appreciation of the key issues influencing consumer experiences when eating at their place of work including criteria of importance that are attached to food, lack of food information and trust as well as a perception of inferior quality of food served. Results from the focus groups provided the data to develop the best-worst scaling questionnaire. The interviews identified important enablers and barriers towards meeting consumer demands and henceforth were important for the development of recommendations that can be applied by canteen operators to enhance the experience of their guests whilst also improving their competitiveness. This research was designed to meet the aim and objectives of the study and henceforth, the decision was made to use a series of empirical studies whereby the findings developed through analysis of each study provided input for the subsequent study. The focus groups provided a rich description of criteria of importance that consumers attach to food when eating at work that highlighted construct

validity for the subsequent phases. Therefore, each study of this research was linked to another and throughout strategies were combined to provide consistency.

Sensitivity

Ethical considerations and requirements in regards to sensitivity have also been a factor in both design and conduct of this research. As part of this, employers who provided details of this research to their employees for participation were assured that the focus group discussions were facilitated in a professional way that did not aim to highlight any issues regarding the operator and provision of the canteen, but rather focus on the aspects relating to making food choices when eating at work. Similarly, for the interviews with canteen operators, contacts have been made with contract caterers to discuss the aim of the research and a discussion of the question guide prior to getting access to contacts of canteen operators. The results of this research demonstrate a rich description of a variety of employees making use of workplace canteens as well as canteen operators who are involved in the daily operation of these. Therefore, different social representations and perspectives are provided. A combination of these viewpoints can enable results drawn from this research to be used by canteen operators to enable their customers to make informed choices when eating at work. Consequently, the results of this research will serve the purpose of the community in which it was carried out.

4.6.2 Quantitative Data Approach

Empirical Study 2

Empirical study 2 involved the development and completion of a best-worst scaling questionnaire that identified consumer information needs in regards to food criteria of importance as well as most preferred ways of receiving food information. A total of 317 questionnaires were completed by employees who have access to a canteen at their place of work. For the purpose of this study it was of importance to investigate which criteria identified through the focus groups in empirical study 1 were the most important to consumers. Therefore, best-worst scaling was chosen as a design for the questionnaire as it forces respondents to make trade-offs between different criteria rather than being able to self-select into categories or choose answers that can be perceived as socially desirable. Using a deductive approach allowed to get a better understanding of consumers' behaviours and cognitive processes, to be achieved.

Utility scores obtained from the best-worst questionnaire were subject to latent class cluster analysis. Latent class cluster analysis was chosen as the most suitable technique for the data

analysis. Similar to factor analysis, latent class analysis addresses the complex pattern of association that appears amongst observations. However, multivariate techniques such as factor analysis aim to reduce the number of observations which was not suitable for this study. Compared to a traditional cluster analysis, latent class cluster analysis establishes probabilistic memberships to latent classes. Applying latent class analysis to best-worst data permits to reach a deeper level of data analysis. Therefore, giving more precise information on the heterogeneity of consumer behaviour when judging criteria under investigation. Furthermore, it offered the opportunity to explore cross-country segments rather than merely using Germany and the UK as segments.

4.6.3 Mixed Methods Approach: Elements of Construct Validity

Combining the strengths of qualitative and quantitative approaches, this study has provided suggestions for practice that will enable consumers to make an informed choice whilst also allowing canteen operators to cater for their customers' requirements and hence be more competitive. Consequently, it is important that the inferences of this research including the meta inferences are evaluated (Tashakkori and Teddlie 2010). Throughout the research process, a continuous legitimization of each study of the sequential mixed methods design has occurred (Onwuegbuzie and Leech 2005).

Integration of Study 1, 2 and 3

Design Suitability

Employing a sequential mixed methods design enabled an investigation of the role information provision based on criteria of importance can play in enhancing the relationship between canteen operators and consumers that fosters trust. Exploring viewpoints from different angles taking into account consumer and canteen operators' perspectives allowed a more complete representation of how information provision can be used by canteen operators to demonstrate transparency and trustworthiness. The data from empirical study 1 in combination with results from the literature provided the construct validity required for the development of the best-worst questionnaire identifying the most important consumer criteria of importance as well as preferred ways of receiving food information. The data analysis undertaken also identified different segments consumers align to which were used to design the industry stakeholder interviews in study 3. Figure 4.6 shows a visual representation of the data linkages and integration between the different studies.

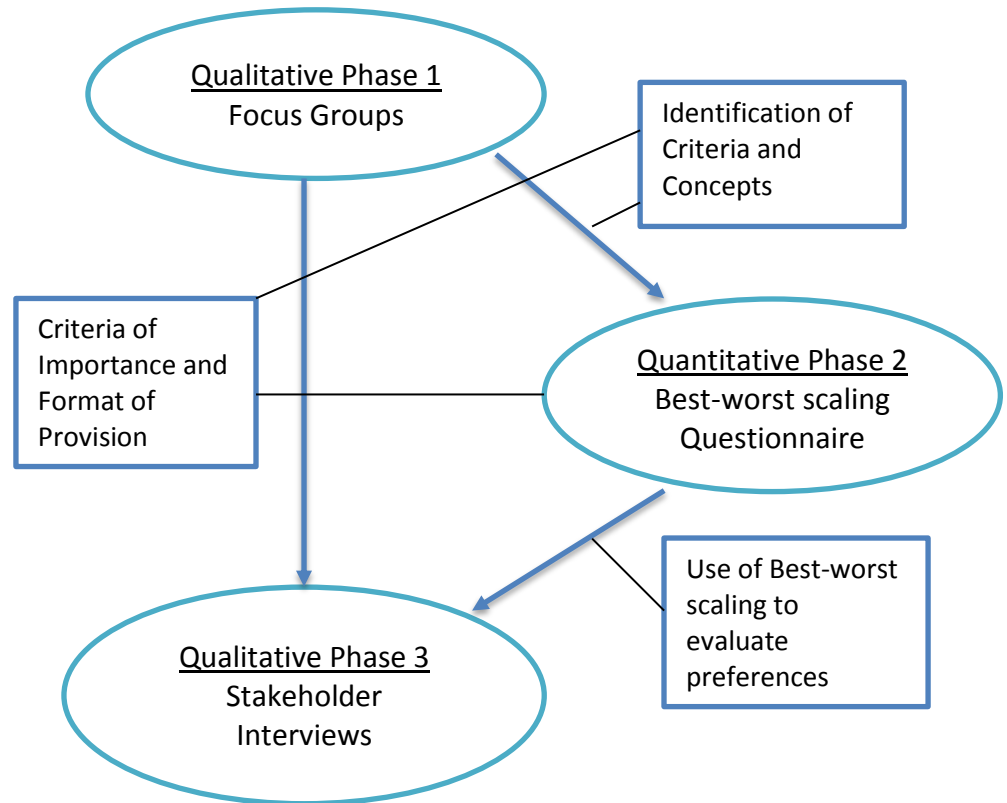


Figure 4.7 Data Linkages and Integration for the Sequential Mixed Methods Design

Design Adequacy/ fidelity

The different empirical studies were designed in a way that is respectful of the requirements of the different participants. Therefore, focus groups were conducted in a location that was convenient for all participants. In order to not interrupt the daily schedule of canteen operators, phone interviews were chosen as the most adequate method. Each study was designed in a way that followed best practice to maximise the potential for capturing meanings, effects and relationships. Therefore, care was taken that the experience of consumers and canteen operators or the research processes and procedures were not compromised.

Within design consistency

The different studies of this research followed a logical, practical and sequential process. Therefore, data collected in the qualitative phases in empirical study 1 and 3 was consistently analysed using thematic analysis. The best-worst scaling questionnaire developed for empirical study 2 was pilot tested and distributed in a consistent manner that took caution that respondents could not repeatedly take part in the study. For all three studies, the same

approach was used to make contacts with gatekeepers to circulate information about the research to employees and canteen operators.

Analytic adequacy

Data from empirical study 1 was analysed using thematic analysis as this provided the descriptive data required to confirm findings from the literature review as well as developing the best-worst scaling questionnaire. Data from empirical study 2 underwent different statistical analytical testing including a hierarchical Bayes estimation of importance given to different criteria and preferences for different food information formats both at a national and individual level.

The individual level data underwent latent class cluster analysis which differed to a traditional cluster analysis established respondents' probability of belonging to a cluster and therefore taking into account that consumers are not static and can belong to more than one cluster.

Results from the stakeholder interviews with canteen operators were also analysed using thematic analysis grouping data into themes that were refined to be distinct and fully supported by the data rather than reflecting the questions of the interview schedule.

Legitimation

Sample integration Legitimation

In order to maximise the quality of meta inferences, the sampling strategy chosen ensured that the participants recruited for the focus groups represented a smaller subset of the type of respondents that were recruited for the questionnaires.

Inside-Outside Legitimation

The emic views of the participants are presented in the results chapter, additionally, the etic views have been taken into account so that there is a good balance between both views. Therefore, quality meta inferences can be made that combine both sets of inferences into a coherent whole.

Weakness minimization Legitimation

Throughout the process, weaknesses from one study were considered and compensated by the strengths of another study. The exploratory nature of study 1 provided important findings that helped to understand differences in criteria of importance in a workplace canteen setting and how the perception of quality affects food choices made. However, these findings were not generalisable and study 2 helped to determine the most important criteria, differences and similarities between countries as well as different consumer segments.

Conversion Legitimation

According to Morgan (2007) an abduction-intersubjectivity-transferability approach was applied, where through abduction there was constant movement between induction and deduction throughout the analysis. This abductive process was used in the design of the research. Data sets from each study were analysed inductively/ deductively separately, moving abductively between data sets combining knowledge gained from each set into a multidimensional perspective where each data set was informed and enhanced by the others (Ivankova et al. 2006).

Paradigmatic mixing Legitimation

No method of enquiry can be claimed to be the only way of providing the truth. Therefore, different outcomes of studies are the result of engaging with the social world in different ways (Biesta 2010). In order to get a more rounded insight into the different perspectives of consumers and stakeholders, the qualitative and quantitative approaches were consciously adopted and provided a layered data set. Results of each study were combined into a theory that reflects a multidimensional and coherent whole perspective.

Commensurability Legitimation

The findings of the qualitative and quantitative studies have been viewed both through a qualitative and quantitative lens to fully understand the different perspectives before they have been combined into mixed multi-lens findings.

Multiple validities

The research has fully utilised all relevant research strategies and has considered and addressed multiple relevant validities for the quantitative, qualitative and mixed methods studies. Consequently, meta inferences made during the integration process have considered the extent to which the sum of the whole is greater than the sum of each study.

Interpretive rigour

Interpretive consistency

The inferences that are presented in this research are considered to be well connected and in terms of the type, intensity and scope, consistent with the evidence and findings.

Theoretical consistency

When reviewing the existing theories and empirical findings from other researchers the inferences provided in this study display a high degree of consistency.

Integrative efficacy

In each study of this research, inferences made were effectively integrated into a theoretically consistent meta inference.

Qualitative and quantitative data were collected for descriptive and exploratory purposes. The focus groups provided an exploratory insight into consumer information needs when eating at work and contributed to an understanding of differences and similarities between Germany and the UK. Consequently, comparing data from the focus groups with food values identified in the literature helped to identify those criteria that were tested in the questionnaire. Using a hierarchical Bayes estimation of best-worst utility scores as well as the latent class cluster analysis established the most relevant criteria of importance and preferred ways of receiving food information besides different segments consumers align to. Combined with the findings of the consumer studies, the results of the canteen operator interviews drove suggestions for practice that enable consumers to make informed choices were made. Throughout, triangulation was applied where the findings of each study were checked against each other in order to enhance the validity of the overall findings.

4.7 Ethical Considerations

Ethical approval was sought from Bournemouth University and the research design as guided by Bournemouth University's Research Ethics Code of Practice.

All participants were provided with information about the purpose of the research study and their right to withdraw their participation at any time (Creswell 2009). Throughout the three different empirical studies, the researcher only had personal contact with participants in empirical study 1. Care was taken that valid consent and withdrawal procedures were in place for all data collection methods. Data collection through the online survey and the semi-structured interviews did not involve face-to-face contact between the researcher and participants. Using online tools can raise the issue of the security of data storage by the provider of the online tool (Denscombe 2010). Therefore, the security of data being obtained and stored through the portal provider was assessed and deemed appropriate.

Summary

This chapter began with an introduction of the pragmatic research approach and the reasoning behind selecting a mixed methods design for the study. Following, it outlines the design of the sequential three empirical studies by providing an overview of the rationale for the method chosen for each study. Additionally, data collection and analysis are presented for each study prior to an evaluation of the methodology concluding this chapter.

Chapter 5

Results

Introduction

In this chapter, the findings of the three empirical studies are presented:

- Empirical study 1 - Focus Groups establishing consumer criteria of importance
- Empirical study 2 - Questionnaire evaluating criteria of importance that influence consumer food choices in workplace canteens and format of provision
- Empirical study 3 - Stakeholder interviews establishing views on consumer criteria of importance and consumer needs including ways of increasing trust in workplace canteens

Results of each of the three empirical studies are presented separately. The results from the primary research together with the literature review will then be discussed fully in Chapter 6.

5.1 Empirical Study 1

Four focus groups were conducted, in Germany (n=2) and the UK (n=2). 23 participants took part in total, male (n=10) and female (n=13) with an age range of 22-52 years. The participants worked in a variety of settings and companies that offered a workplace canteen to their employees. The questions and prompts used in the focus groups are shown in Appendix 1.

5.1.1 Preceding Factors for Making Food Choices

Participants of the study shared their experience from different styles of workplace canteens. Whilst some workplaces offered a modern restaurant style food provision others offered food in a more traditional canteen. Furthermore, there was a difference between the amounts of dishes to choose from as well as provision of information about food offered on menu boards. Nevertheless, there was the common consent amongst participants that they have less expectation in the food sold at work than in food consumed at home or when eating out in a restaurant. This concerned especially taste and quality of ingredients used to prepare dishes. Additionally, within analysis, there are preceding factors influencing the decision to eat in a workplace canteen as illustrated in Figure 5.1. These are reasons which act as facilitators or barriers to making use of a workplace canteen. Workplace canteens are not only used to buy food but are also a facility where employees can take a break which was an important factor for all participants for using the canteen. Moreover, it is a place which is used for socialising.

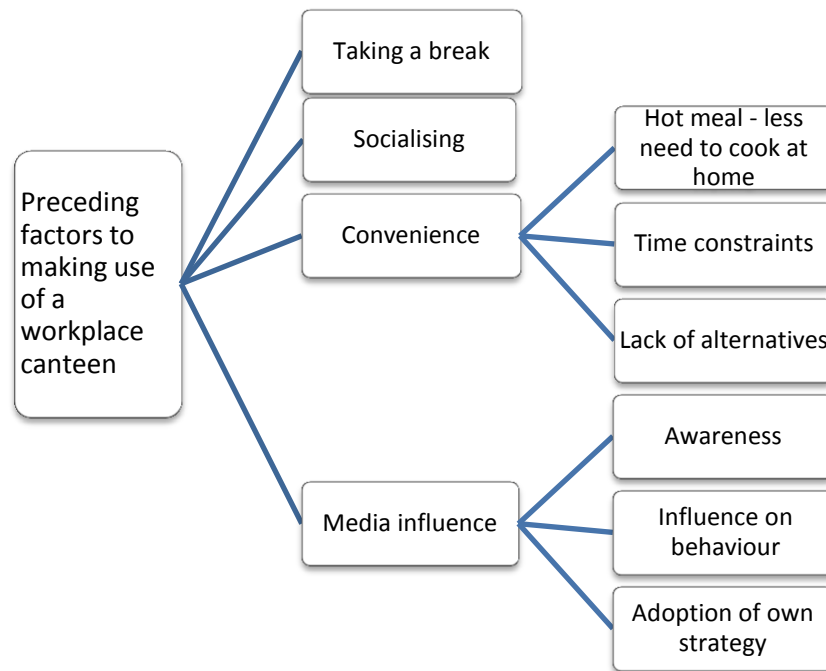


Figure 5.1 Themes and Subthemes of the Preceding Factors influencing the Use of a Canteen

Taking a break

Participants valued their workplace canteen as it was seen as important to take a break from work. Even if food was not purchased in the canteen on a daily basis the facilities were used by some participants to eat their own home brought food.

Socialising

Being able to socialise and meet other colleagues was one reason to make use of the workplace canteen. This was especially valued by participants who worked in an office and did not interact much with their colleagues whilst working.

Convenience

A workplace canteen offers many aspects of convenience. Some of these are that it provides a warm meal and there is no need to cook hot food in the evening or prepare any food to take to work in advance. This was especially valued by participants who lived in a single household. Additionally, time constraints of having between half an hour and an hour available for lunch give operators that provide food at work an advantage over others which may be nearby. Furthermore, whilst canteens are seen as convenient, it was also noted that there is a lack of alternatives available for employees to use if they do not like the food offered.

“It’s convenient... I mean what else are you going to do? You’ve only got an hour, so if you haven’t made a packed lunch and you gotta go elsewhere it’s only going to take up time and is expensive compared to the canteen” Male Participant, Germany

This lack of alternatives was especially mentioned by German participants who, although the food offered in the canteen did not have the degree of quality they expect, they used the canteen because it was convenient and there was a lack of alternatives.

Media Coverage of Food Scandals

Media coverage of canteens as a utilitarian environment that is not conducive to relaxation and the enjoyment of food has effected participants' perception of the quality of food served. When consuming food provided by canteens, participants are under the assumption that the food offered is going to be of an inferior standard than food prepared at home or in a restaurant. Participants of both countries mentioned the horsemeat scandal but simultaneously said that it does not affect their food choices at work. Furthermore, some participants feel that problems with food often occur when cheap ingredients are being used such as in canteens, where there is a perception that cost is important. However, in this situation, they have developed a system to protect themselves such as looking out for whole cuts of meats, staying away from meals such as burgers or opting for vegetarian meals.

"Well... I never eat meat in the canteen, I mean I find it strange to see that they can sell a pie with mince for 2 Euros...That makes me wonder where it comes from, so I rather stick to a vegetarian option." Female Participant, Germany

German participants mentioned the occurrence of Enterohaemorrhagic Escherichia coli (EHEC) which led to the death of several people after an outbreak in the summer of 2011 in Germany. At the time of the outbreak, German authorities suspected raw vegetables and salads to be the vehicle of contamination and advised consumer to stop eating these foods. However, participants who mentioned this food problem were not concerned for themselves personally.

5.1.2 Factors Directly Affecting Food Choice

Once the decision to eat in a workplace canteen has been made, there are several aspects that influence food choice as shown in Figure 5.2. However, participants mentioned that these were different to factors influencing their food choice when they prepare food at home or do their own food shopping. This was as aforementioned influenced by their perception of inferior quality of mass produced food in workplace canteens. Additionally, it was noted that other than in a retail environment, consumers are presented with a whole meal where they do not think about individual ingredients in the way they do when preparing a meal at home.

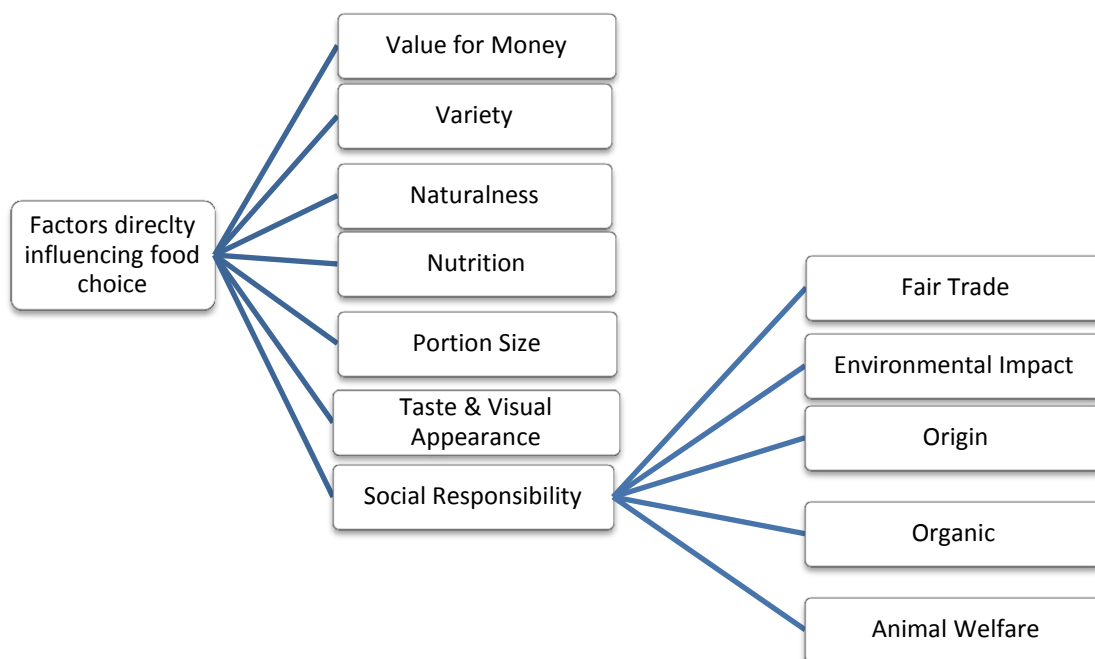


Figure 5.2 Themes and Subthemes summarising Criteria directly affecting Food Choice

Value for Money

The price of dishes offered was important to all participants, especially to those who eat in their canteen on a daily basis. Canteens will only be used by employees when the food offered is affordable. Although food of a higher quality is desired, it is recognised that there are budget restrictions and there were different views on paying a premium for better food quality. Some canteens provide meals in different price ranges to suit a variety of budgets. This was mentioned by German participants. Furthermore, it was discussed that healthier dishes such as a salad bar are considerably more expensive than processed foods.

“I think the salad bar is really nice but really dear for what it is, like four pounds for a tub of salad which doesn’t... it’s not enough for lunch...Yeah so I think it’s quite expensive for what it is.” Female Participant, UK

However, participants recognised that there is a challenge for the caterer to provide high quality food at a reasonable cost, for participants in the UK, food was offered at a price range of £3.50-£5.00 whereas in Germany prices varied between € 1.80 -€ 5.00 per dish.

Variety

Food offered in canteens differs in variety; some canteens have a three weekly menu rotation whilst others have different counters where cultural dishes are provided. When eating in a canteen regularly, a variety of choices is relevant so that monotony can be avoided. In addition, workplace canteens have to cater for different needs for example manual workers who feel that they need more energy dense foods, compared to employees who work in other roles and who request ‘lighter’ dishes that do not make them feel lethargic.

“The healthy option is there...trying to accommodate for everyone so then everyone is going to eat there. A lot of the guys where I work are big blokes...and they are looking for something that fills them up...personally, I don’t like to feel too full up.” Male Participant, UK

Participants’ understanding of lighter dishes was related to dishes that contain fewer calories and less fat. Furthermore, participants discussed their interest for foreign cuisine and dishes which they do not usually cook at home.

“Yes yeah because, where I work, I don’t actually eat much that they cook, but on a Thursday it’s like their curry day so I make allowances for that...” Male Participant, UK

There was also a demand for more flexibility on the side of the caterer to offer alternatives so that side dishes can be swapped to suit different tastes and needs.

Naturalness

Although participants discussed that they have little expectations in the food provided at work, the use of fresh ingredients is a priority for choosing food in a canteen. Therefore, the use and reliance on heavily processed foods was criticised.

“And there are so many easy dishes with vegetables and fruits and why is it such a big issue to just present them nicely and cook them?” Female Participant, UK

This was especially the case amongst participants in the UK. German participants on the other hand were more concerned about the amount of additives in food provided in the canteen and expressed their wish for more fresh food without preservatives.

“But I think that somehow, eating all these processed foods that are full of additives, I think that they contribute towards people suffering from allergies.” Male Participant, Germany

Nutrition

For many of the participants, eating healthy was a priority and there was regret that this demand is not always met. Whilst there are differences between the amounts of healthy food offered in canteens, most participants commented on the high cost of these dishes. For one participant especially, the lack of healthy dishes offered led to the need to bring in a packed lunch.

“I’d say there’s not a lot of healthy stuff, because when I was on a diet, I found it really hard to find some healthy food... apart from going to the salad bar upstairs. I didn’t think there was enough, do you know what I mean...” Female Participant, UK

There is a demand for more nutritionally balanced dishes that can form part of a healthy diet and active lifestyle.

Portion Size

In contrast to the demand for healthy food, participants also commented on portion size. Especially for German male participants, they felt it was important to get a sufficient portion and good value for money.

“I mean if I know I have got a really long day coming up, then it is important to me that the meal fills me up...and that also means that I won't chose a gourmet option...” Male Participant, Germany

Taste and Visual Appearance

There was a difference in satisfaction with food offered in the different canteens that participants used. Taste was one of the most important factors for making choices and experience played a role for many to decide which dishes have a good taste. There were multiple accounts of bad experiences where food did not meet the expectations of participants.

“Not long ago on the menu, there was an aubergine bake, which sounds good but when you look at it, you just cannot identify, what it is supposed to be...” Female Participant, Germany

Additionally, the visual appearance of food was an important factor for choice, if it did not look appetising, the dish would not be selected.

“Well for me it is important, I mean I always look at the menu in advance, and sometimes I think ‘wow’ that sounds nice but the rule of thumb is to always go and have a look at it beforehand.” Male Participant, Germany

Social Responsibility

Social responsibility collectively includes many factors such as criteria that are concerned with the well treatment of animals, the environment as well as the fair treatment of those involved in the direct production of ingredients. Participants were aware of the existence of the different schemes and production methods, there was however a ‘fuzziness’ in the understanding of each of the different criteria. Therefore, participants made associations about products that carry a fair trade label to be also animal friendly or the association that organic food is most likely to be produced locally. Consequently, this led to a combination of aspects such as fair trade, environmental aspects, provenance, organic food production and animal welfare described under the term social responsibility.

On the one hand participants discussed that they like to make choices that are responsible, and therefore benefit others and the environment. On the other hand, this intention does not often materialise as it can be inconvenient and difficult. Furthermore, participants saw a responsibility of the canteen operator to provide food that is produced in fair conditions and has no harmful impact on the environment. Although aspects such as organic food are

important to participants, they play a greater role when making food choices in a retail environment. When making food choices in workplace canteens, the choice between organic and 'conventional' food is rarely possible.

Moreover, there are mixed views about paying a premium for food that is produced organically. Participants were not willing to pay a lot more for these criteria and struggled to consider these when making dish choices.

"It would be nice to have local or mainly locally sourced food but I think it's also sometimes a price decision." Female Participant, UK

When being confronted with a meal it is difficult to imagine the origin of all ingredients and whether these have been produced in an ethical way.

"I just don't think you would see it. I know that this is just really blunt but I just don't think you would ever see it like battery farmed chicken today. It wouldn't go and you'd be like: I'm definitely not eating that. They only put it on there if it is a good thing."

Female Participant, UK

It is also the same when considering fair trade products and products with a low carbon footprint. Although labelling meals with a logo expressing aspects of social responsibility can help consumers make a decision between meals if undecided, having a preference for a dish is more important. Furthermore, participants criticised that it is rarely possible to take these criteria into account considering a lack of information on these aspects. There was an expressed interest in the provenance of the food with a high interest in locally sourced ingredients. However, even if non-locally sourced ingredients are used, participants indicated a wish to know the origin.

"I mean you should have the right, you should have an option, you should be able to choose what you eat, whether it is related to horsemeat or not...". Male Participant, UK

In particular, the provenance of meat and eggs is of importance with some participants avoiding dishes containing these ingredients when they are in doubt or unsure about their origin. In regards to animal welfare, there was consent that this is of high importance reinforced by media coverage of mistreatment of animals and had an impact on what dishes are chosen in the canteen.

"I'm really funny with chicken, if I think like just the thought of KFC chicken, do you know, you know that it's a battery chicken and makes me not want to buy chicken from there because I know how they treat it. But in the canteen you wouldn't know..."

Female Participant, UK

5.1.3 Food Information

Although participants welcome greater information provision and transparency at the same time they questioned to what extent they would make use of the information provided. Notwithstanding, there is some information that consumers would like to see (Figure 5.3) and feel they have the right to know even if it is not used to influence choice.

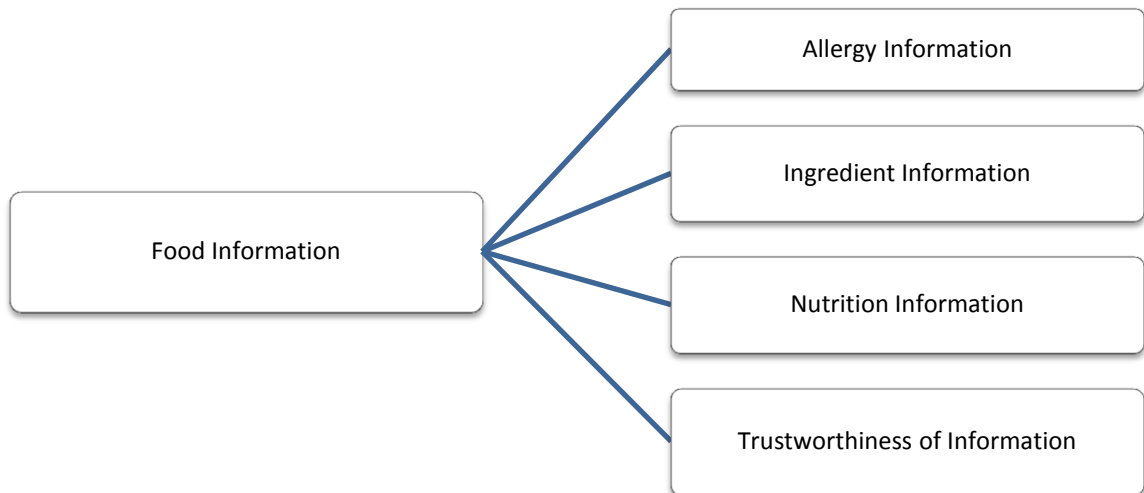


Figure 5.3 Themes and Subthemes summarising Consumer Interest in Food Information

In one German canteen there is a system in place providing information about the chef preparing the food. This was welcomed by users of this canteen as they felt that this personalised a mass product and gave them confidence in the food provided.

“In our canteen for example, there is at every counter, a sign with the name of the chef, so just simple things like that are good for increasing trust, because you can see that he cooked it and you know his name and can see him prepare it...” Male Participant, Germany

There are differences between Germany and the UK in regards to information available to consumers in workplace canteens. Whilst in the UK, participants perceived a lack of information, in most canteens in Germany systems are in place where the dish description indicates the additives and allergens this dish contains. One canteen provides an app which displayed information about the menu and food to employees. However, accessing the information and more importantly understanding information was criticised as being too difficult and inconvenient.

“ Well I find that because we work in a public institution, it is essential that information is available so that all people can use the canteen. Let it be because of allergies or

religious reasons, we all pay for it so we all should be able to use it, I think that's more or less a basic right." Male Participant, Germany

Allergy Information

Alongside the problem of understanding the information provided it was questioned whether the information made available is enough for those who depend on it for health reasons. None of the participants suffered from any allergies and whilst acknowledging a necessity for information on allergens to be available, many regarded it to be the responsibility of the individual to make sure that the food is safe to eat for them.

"Yes but I do wonder if the information provided for those people depending on it is enough. So if there are 10 numbers behind a dish, I am not sure if that is the information someone suffering from an allergy needs?" Female Participant, Germany

Ingredients

Participants indicated that they welcome information on the ingredients that are present in the meals, especially the provenance. Nevertheless, they discussed that this is often used by caterers for marketing purposes in order to increase sales.

"They're only going to put it on there if that means they can sell it for more" Male Participant, Germany.

Nutrition Information

There were mixed views about nutritional information provided in canteens, particularly calorie information. Although some participants welcomed this type of information as they are on a diet or use it to gauge the nutritional quality of food available, others criticised the availability of this to spoil their enjoyment of food.

"Or just the traffic light system, where you like you got on the packages of sandwiches and you can compare which isn't that bad for you: high in salt or low in salt, just the colour coding. It doesn't necessarily need to have the calories. Like when I see it on a menu and they put the calories next to it, you will automatically try and find the lowest." Female Participant, UK

Additionally, there was doubt by some as to whether it would be used.

"At McDonalds I also don't use the information provided, I go there to eat a burger, same with the canteen, I don't go there for good food and to calorie count , I go there because I am hungry..." Female Participant, Germany

Trustworthiness of Information

Generally, there was no concern of inaccuracy of provided information. However, in one German focus group it was discussed, that there are faults in the provision of information, for example some dishes containing fish were labelled as vegetarian and meat containing dishes as vegan. Although these were obvious mistakes in the system, participants questioned

whether similar mistakes could be made with other information such as allergen information which could have more severe implications for consumers.

“Sometime there are errors in the system, I mean errors can happen but in some cases also have consequences...advertising a vegetable soup with a Frankfurter as vegan...”

Male Participant, UK

5.1.4 Similarities and Differences between the UK and Germany

There are similarities and differences between factors that were important to participants when making food choices which are outlined in Table 5.1.

Table 5.1 Similarities and Differences between Factors affecting Food Choice in Germany and the UK

	Differences	Similarities
Taking a Break/Socialising		Resting Meeting Colleagues
Convenience	Lack of Alternatives (GER) No Need to Cook at Home (GER)	Time Constraints
Food Scandals	Food Safety (GER)	Food Fraud
Price		Affordability
Variety	Menu Rotation (GER) Ethnic Foods (UK) Flexibility (UK)	
Naturalness	Free from Additives (GER) Less Processed Food (UK)	Fresh Ingredients
Nutrition	Cooking Method (UK)	Health
Portion Size	Sufficient Portion Size (GER)	
Taste and Visual Appearance		High Priority of Taste and Visual Appearance
Social Responsibility	Fair Trade (UK) Carbon Footprint (UK)	Support for Local Community Animal Welfare Organic Food Origin of Food
Food Information	Origin (UK)	Allergens Calorie Content Ingredients

For the preceding factors affecting food choice, using the canteen to have a rest and socialise alongside the convenience it offers was equally important to participants from both countries. However, German participants also stated the lack of alternatives and not having to cook a hot meal at home as reasons for making use of their workplace canteen. Furthermore, they not only mentioned food scandals relating to fraudulent food but also food safety issues.

Whilst the price of a meal, its taste and visual appearance are important factors in choosing a dish for UK and German participants, portion size was only mentioned by German participants. Both, UK and German consumers` value healthy food and fresh ingredients. German consumers were concerned about additives in food and UK consumers criticised the use of processed foods in canteens. Furthermore, participants from the UK would like to have their food prepared in a way that preserves nutrients. There are differences in demand for variety with German participants asking for a more frequent menu rotation and UK participants having an interest in a more culturally diverse menu which offers flexibility to swap for healthier alternatives. There is a request for information on allergens, calorie content and ingredients in both countries, with the UK also showing interest for information on the origin of food. Support for the local community, high standards of animal welfare, origin of food and organic food production were mentioned in each country with views on organic produce being mixed. Furthermore, one UK participant found fair trade and the carbon footprint of food important when selecting food.

The preceding and direct criteria influencing food choice which represent the criteria of importance people attach to food at work are shown in Figure 5.4 alongside differences between the different countries.

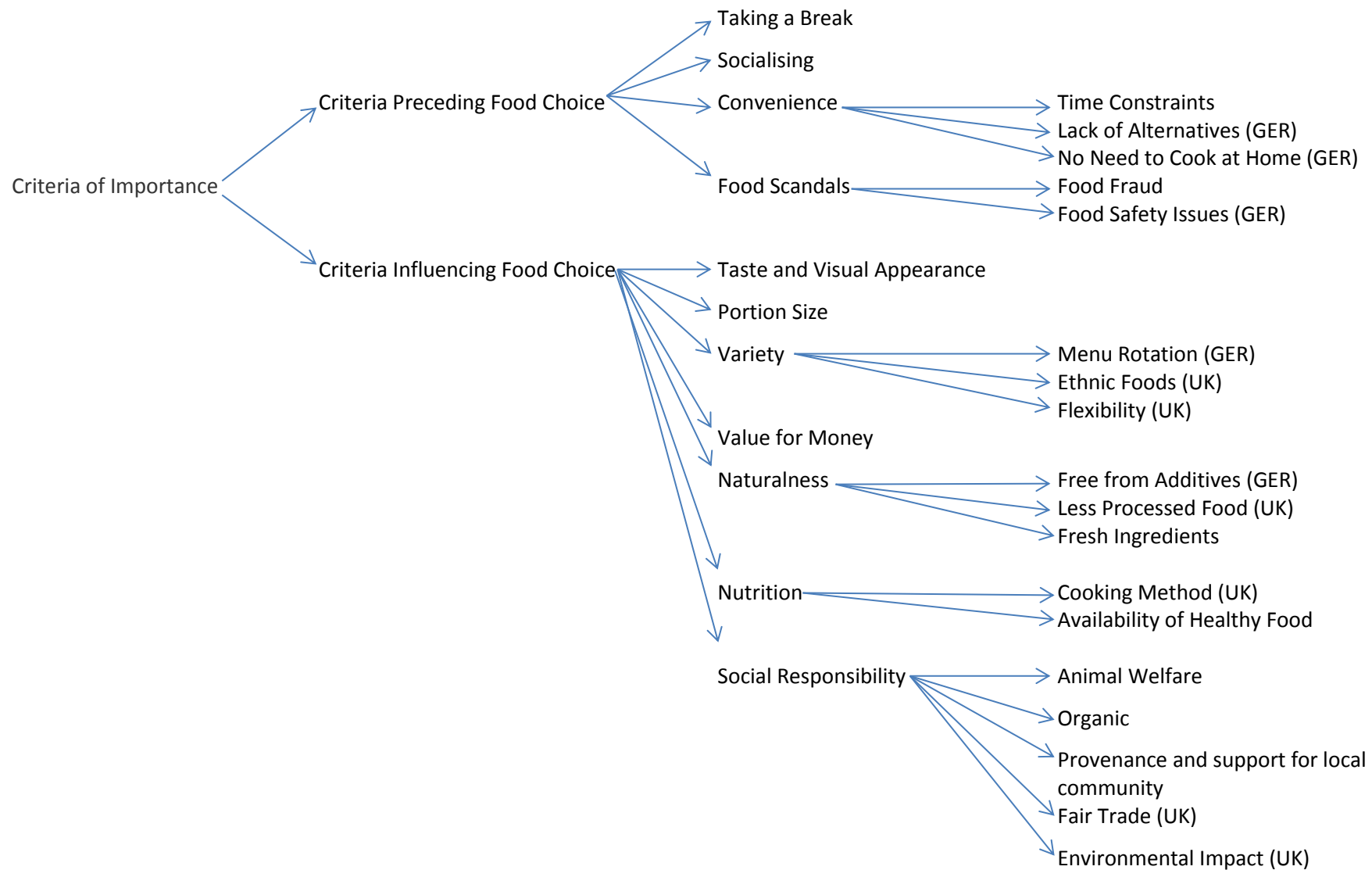


Figure 5.4 Preceding and Direct Criteria influencing Food Choice in Workplace Canteens

5.2 Empirical Study 2

For the purpose of this study, an online administered survey was carried out in Germany and the UK throughout the summer/autumn of 2015. The survey consisted of three parts; the first part assessed the importance of eight criteria that influence food choices made in canteens derived from the focus groups whilst the second part evaluated the preference for six different ways of providing food information derived from the literature and focus groups. Thirdly, socio-demographic data were collected in order to gain a better understanding of the sample and to segment participants based on choices made in earlier parts of the survey. Prior to presenting the results of both part one and two of the survey, the socio-demographic characteristics of the sample are described. Following this, the results of the first part of the survey are presented separately to the results of the second part in favour of a clearer structure.

Data were collected from 317 employees from two countries, Germany and the UK, who had access to a canteen at their place of work. Most employees worked full time at their place of work (54.3 %) and the employment of about half of the employees taking part in this study fall under the occupations classification of Technicians and Associate Professionals (50.2%). The majority of the sample was female (69.1%) aged between 20-29 (66.2%) and held some form of maturity certificates such as A-levels or Abitur in combination with vocational qualifications (45.4%) or completed higher tertiary education (44.5%). Most of the respondents (78.2 %) were born in their country of residence, Germany or the UK, whereas 11.4 % were born in other EU countries and 10.4% were born outside of the EU. Around a third of respondents lived in either single person households (27.1%) or multi person households (30.3%). In relation to household size 35.6% of respondents lived in a two-person household. In regards to dietary requirements, 76.7% of respondents did not have any special dietary requirements, 9.8% reported to suffer from Allergies and 9.8% of respondents reported to have other dietary requirements such as self-selected gluten free diets or lifestyle choices such as being a vegetarian.

Further socio-demographic characteristics of the sample are presented in Table 5.2.

Table 5.2 Socio-demographic Characteristics of Sample

	Overall Sample (n=317)		Germany (n=165/52.1%)		UK (n=152/47.9%)	
	N	%	N	%	N	%
Gender						
Male	98	30.9	49	29.7	49	32.2
Female	219	69.1	116	70.3	103	69.1
Age groups						
Below 20	28	8.8	3	1.8	25	17.2
20-29	210	66.2	137	83.1	73	47.4
30-39	45	14.2	13	7.8	32	20.4
40-49	19	6.0	7	4.2	12	8.4
50-59	13	4.1	5	3.1	8	5.2
Over 60	2	0.6	0	0	2	1.4
Country of birth						
Within country of residence	248	78.2	151	91.6	97	64.1
In another EU member state	36	11.4	8	4.8	28	18.5
Outside the EU	33	10.4	6	3.6	27	17.4
Dietary requirements						
Religious	5	1.6	1	0.6	4	2.6
Allergies	31	9.8	20	12.1	11	7.2
Health related	7	2.2	2	1.2	5	3.3
None	243	76.7	123	74.5	120	78.9
Other	31	9.8	19	11.5	12	7.9
Household type						
Single person household	86	27.1	58	35.2	28	18.4
Multi person household	96	30.3	53	31.7	43	28.3
Lone parent children >25	4	1.3	1	0.6	3	2.0
Couple without children <25	50	15.8	27	16.4	23	15.1
Couple with children <25	45	14.2	10	6.1	35	23.0
Other type of household	36	11.4	16	9.7	20	11.4
Household size						
One person household	59	18.6	42	25.4	17	11.2
Two person household	113	35.6	70	42.4	43	28.3
Three person household	63	19.9	30	18.2	33	21.7
Four person household	46	14.5	18	10.9	28	18.4
More than four person household	36	11.4	5	3.0	31	20.5
Employment status						
Full time	172	54.3	77	46.7	95	62.5
Part time	145	45.7	88	53.3	57	37.5
Occupation						
ISCO-08 Category 1 Managers	31	9.8	6	3.6	25	16.4
ISCO-08 Category 2 Professionals	54	17.0	28	17.0	26	17.1
ISCO-08 Category 3 Technicians and Associate Professionals	159	50.2	99	60.0	60	39.5
ISCO-08 Category 4 Clerical	20	6.3	19	11.5	1	0.7

support						
ISCO-08 Category 5 Service and Sales	36	11.4	8	4.8	28	18.4
ISCO-08 Category 7 Craft and Trades	5	1.6	1	0.6	4	2.6
ISCO-08 Category 9 Elementary Occupations	2	0.6	2	1.2	0	0
Missing value	10	3.2	2	1.2	8	5.3
Highest level of Education						
Basic and vocational education	5	1.6	4	2.4	1	0.7
Intermediate general qualification	18	5.7	14	8.5	5	2.6
Gen maturity certificate/vocational qualifications	144	45.4	100	69.4	44	28.9
Higher tertiary education	141	44.5	45	27.3	96	63.2
Missing value	9	2.8	2	1.2	7	4.6

Criteria of Importance

A variety of techniques were used to analyse the data as discussed in greater detail in Chapter 4. Best-worst scores were calculated through a Hierarchical Bayes estimation using Sawtooth Software. Thereby, utility scores were estimated on an individual level for each participant and averaged within each country for the different consumer criteria of importance tested for. Country specific results are presented in Table 5.3.

Table 5.3 Average Best-worst Utility Scores for Criteria of Importance in descending order

	Germany (utility scores)	UK (utility scores)
Nutrition	29.44	27.76
Value for Money	21.22	24.26
Naturalness	15.94	15.74
Animal Welfare	13.23	12.13
Organic	6.9	6.42
Fair Trade	4.77	4.97
Environmental Impact	4.34	5.63
Provenance	4.16	3.07

Table 5.3 shows utility scores which are a measure of relative importance, that have been rescaled into positive values summing to 100 on a ratio scale. The results are fairly consistent across the sample, in that the rank order of criteria is identical with Nutrition, Value for Money and Naturalness ranked in the top three for both countries. However, in Germany, there is a higher importance on Nutrition rather than Value for Money compared to the UK. Whilst the utility scores of Animal Welfare and Provenance are slightly higher in Germany, scores are higher for Fair Trade and Environmental Impact in the UK.

Latent class analysis was used to detect relationships between observed variables on the basis of a smaller number of latent variables (Rindskopf 2009). In this study the best-worst utility scores were subject to latent class analysis to identify the degree of importance the sample gives to the eight food criteria of importance when making food choices in a workplace canteen. Latent class analysis can identify homogenous sub-groups of the sample population in respect to consumer preferences shown towards the tested attributes (Casini and Corsi 2008). Each cluster thus differs in its preference structure of what criteria influence food choices. Latent class analysis was performed using Latent Gold 3.0 (Vermunt and Magidson 2003) to estimate a latent class cluster model based on the individual best-worst scores. Models were estimated from two to five clusters and the log-likelihoods (LL), Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) of each model compared as shown in Table 5.4. Both AIC and BIC are measures of the goodness to fit of a model with the AIC considering the number of model parameters and the BIC considering the number of model parameters and number of observations. The two information criteria can be expressed as $-2 * LL + A_n * p$, where LL is the log-likelihood, A_n is a penalty weight and p indicator for the number of parameters in the model (Dziak et al. 2015). The A_n of both criteria is listed in Table 5.4.

Table 5.4 Penalty Weight of AIC and BIC

	AIC	BIC
A_n	2	$\ln(n)$

Models with a low BIC and AIC indicate parsimony and a good fit to the data. Although AIC and BIC are based on good statistical theory, neither can be classed as a gold standard when assessing which model should be chosen. Therefore, different models were compared using AIC and BIC, as shown in Table 5.5, but eventually the optimal number of clusters was determined on the basis of taking into account parsimony alongside interpretability of the model (Ruta et al. 2008). Hence, the model with three clusters was chosen.

Table 5.5 Latent Class Cluster Models fitted to Individual-level Best-worst scores of the Eight Criteria of Importance

Model	LL	AIC_{LL}	BIC_{LL}	Classification Error
<i>Criteria of importance</i>				
One-cluster model	-5836.2851	11704.5702	11764.712	0.0000
Two-cluster model	-5578.9078	11223.8156	11347.859	0.0439
Three-cluster model	-5503.6125	11107.2250	11295.170	0.0742
Four-cluster model	-5415.5184	10965.0368	11216.883	0.0770
Five cluster model	-5365.1564	10913.6668	11214.060	0.0741

Notes: LL=Log-likelihood; AIC_{LL} = Akaike Information Criterion based on the log-likelihood; BIC_{LL} =Bayesian Information Criterion based on the log-likelihood

All clusters were defined based on the revealed importance of each attribute that has been identified by the individual-level best-worst scores and are shown in Table 5.6. Cluster 1 was tagged 'Health Conscious' as although Value for Money was the most important criterion in this cluster, there was also a high focus on health related criteria. Cluster 2 was tagged 'Socially Responsible' according to a high emphasis on criteria that are related to respectful treatment of others and the environment. Cluster 3 was tagged 'Value Driven' as Value for Money alongside criteria such as Fair Trade, Environmental Impact and Animal Welfare were of importance.

The utility scores shown in Table 5.6 are a preference judgement presenting the holistic value or path-worth for each of the tested criteria in this study. Hereby, negative weights have to be read not as negative influences but as a deviation from the average zero utility to indicate a less important attribute. All attributes tested for in the survey are significantly different between the clusters (p -values <0.05), and are therefore useful in segmenting the participants into three clusters. There are some socio-demographic differences between the clusters as measured by chi-square. Country of birth and household type are the only significant ($p \leq 0.05$) socio-demographic variables, whilst age, gender, dietary requirements, household size, employment status, occupation and highest level of education are not significant ($p > 0.05$).

Table 5.6 Latent Class Cluster Parameter Values for Food Criteria of Importance

	Health Conscious (38.2%)	Socially Responsible (34.4%)	Value Driven (27.4%)	p-value	R²
Value for Money	3.29	-5.04	1.75	<0.01	0.56
Organic	-0.04	1.79	-1.75	<0.01	0.37
Environmental Impact	-1.99	1.45	0.55	<0.01	0.51
Naturalness	1.10	-0.02	-1.09	<0.01	0.17
Nutrition	1.44	-1.69	0.25	<0.01	0.29
Fair Trade	-1.75	1.2	0.55	<0.01	0.42
Provenance	-0.5	1.19	-0.7	<0.01	0.19
Animal Welfare	-1.54	1.1	0.44	<0.01	0.25
Socio-Demographic Variables					
Gender					
Male	27.3	27.5	40.2	0.087	n.a.
Female	72.7	72.5	59.8		
Age groups					
Below 20	9.1	8.3	9.2	0.951	n.a.
20-29	67.8	65.1	65.5		
30-39	14.9	12.8	14.9		
40-49	4.1	8.3	5.7		
50-59	3.3	5.5	3.4		
Over 60	0.8	-	1.1		

Country of birth					
Within country of residence	80.2	75.2	79.3	0.012	n.a.
Other EU country	7.4	16.5	10.3		
Outside the EU	12.4	8.3	10.3		
Dietary Requirements					
Religious	0.8	2.8	1.1	0.717	n.a.
Allergies	10.7	10.1	8.0		
Health related	0.8	3.7	2.3		
None	79.3	71.6	79.36		
Other	8.3	11.9	9.2		
Household type					
Single person	31.4	23.9	25.3	0.05	n.a.
Multi person	32.7	31.2	28.6		
Lone parent children <25	1.7	1.8	2.3		
Couple without children <25	19.8	14.7	11.5		
Couple, children <25	9.1	18.3	16.1		
Other	5.0	10.1	16.1		
Household size					
One person	21.5	18.3	14.9	0.232	n.a.
Two person	38.8	34.9	32.2		
Three person	18.2	19.3	23.0		
Four person	10.7	20.2	12.6		
More than four person	10.7	7.4	4.5		
Employment status					
Full time	52.0	52.3	59.8	0.528	n.a.
Part time	48.0	47.7	40.2		
Occupation					
ISCO-08 Category 1	7.4	10.1	12.6	0.277	n.a.
ISCO-08 Category 2	15.7	21.1	13.8		
ISCO-08 Category 3	54.4	44	51.7		
ISCO-08 Category 4	8.3	3.7	6.9		
ISCO-08 Category 5	8.3	15.6	10.3		
ISCO-08 Category 7	2.5	-	2.2		
ISCO-08 Category 9	-	1.8	-		
missing	3.3	3.7	2.3		
Highest level of Education					
Basic and vocational qualification	-	3.6	1.1	0.073	n.a.
Intermediate general qualification	3.3	9.2	4.6		
Gen maturity certificate/ vocational qualifications	53.7	41.3	39.1		
Higher tertiary education	41.3	43.1	50.6		
Missing	1.7	2.8	4.6		
Participant Country					
Germany	53.7	56.9	43.7	0.166	
UK	46.3	43.1	56.3		

Country of birth and household type were the only significant socio-demographic variables between clusters. Amongst all clusters, the majority of respondents were born within their country of residence, Germany or the UK. Cluster 2 has got the highest membership of respondents that were born in another EU country (16.5%) compared to Cluster 1 (7.4%) and Cluster 3 (10.3%). On the contrary, Cluster 1 has got the highest percentage of respondents that were born outside of the EU (12.4%) compared to Cluster 2 (8.3%) and Cluster 3 (10.3%). In relation to household type, there are significant differences between clusters in that Cluster 1 has got a high percentage of single person (31.4%) and multi person (32.7%) households as well as the highest percentage of couples without children <25 (19.8%). Cluster 2 on the opposite has got the highest membership of couples with children <25 (19.3%) and the lowest membership of single person households (23.9%). Similarly, to Cluster 2, Cluster 3 has got a lower percentage of single person households (25.3%) and a higher percentage of couples with children <25 (16.1%) compared to Cluster 1. Additionally, it has got the highest percentage of lone parents with children <25 (2.3%) and other types of households (16.1%).

Cluster 1 Health conscious

The first cluster was tagged Health Conscious due to the high importance of selecting a dish that is nutritious and natural whilst also providing good value for money. Value for Money (3.29) is the most important criteria in this cluster followed by Nutrition (1.44) and Naturalness (1.1). However, employees in this cluster are the least concerned about Environmental Impact (-1.99). Additionally, there is low importance given to Fair Trade (-1.75), Animal Welfare (-1.54), Provenance (-0.5) and Organic (-0.04). This cluster is the largest segment containing 38.2% of the sample population. In this group, there is an uneven distribution between males (27.3 %) and females (72.7%). Furthermore, this cluster compared to the other groups contains the highest proportion of respondents living in single households (31.4%) or as couples without children (19.8). One of the UK participants described the reasoning behind his selection of high importance of Value for Money and Nutrition as follows: *“I do have to watch my pennies but I still like to eat healthy and believe that you can on a budget” (UK, male participant)*

Cluster 2 Socially Responsible

In this second largest cluster (34.4%), criteria that are related to socially responsible factors of food production are of higher importance than the cost or nutritional composition of the dish. Consequently, Organic (1.79) scores highest in this cluster followed by Environmental Impact (1.45), Fair Trade (1.2), Provenance (1.19) and Animal Welfare (1.1). Value for Money (-5.04) for this group is the least important criteria when selecting a dish. Furthermore, there is also a

lower emphasis on Nutrition (-1.69) and Naturalness (-0.02). The top three criteria of Cluster 1 in this cluster are the criteria with negative utility scores. This cluster consists of 72.5% female employees and whilst the majority of participants in this cluster are aged between 20-29 (65.1%) there is also a higher proportion of participants in their forties (8.3%) and fifties (5.5%) compared to other clusters. Additionally, this cluster had a higher number of couples with children (18.3%) in comparison to both other clusters. Similar to Cluster 1, there is a slightly higher number of German participants (56.9%) in this cluster. Finally, this cluster had the highest percentage of participants who reported 'other dietary requirements' (11.9) which included vegetarian and vegan diets. A German participant from this cluster described her reasoning behind choosing criteria that are classed as Socially Responsible: *"It is of importance to me to only eat food products that were not produced with detrimental effect on humans, environment and animals"* (Germany, female participant).

Cluster 3 Value Driven

The smallest cluster with 27.4 % is cluster 3, tagged Value Driven. Similar to the first cluster, Value for Money (1.75) is of high importance. Moreover, criteria indicating social responsibility such as Fair Trade (0.55), Environmental Impact (0.55) and Animal Welfare (0.44) were of importance alongside Nutrition (0.25). However, Organic (-1.75), Naturalness (-1.09) and Provenance (-0.7) were less important. Out of the employees in this cluster, 40.2% are male and 59.9% are female and 50.6% of respondents completed higher tertiary education. Whilst Cluster 1 and 2 have a higher percentage of German participants, this cluster has a slightly higher membership of UK respondents (56.3%). One employee from the UK belonging to this cluster described his process of decision making as: *"I selected value for money, fair trade and animal welfare as most important as I'm on a budget, but not so much that I can't afford a few extra pence to ensure farmers get value for their product and maintain support of animal welfare. Things that are less important are provenance. I feel like these issues are far less important than supporting farmers financially (whether home or abroad) and I believe that growing some produce in the UK out of season is more harmful to the environment than shipping it in from overseas."* (UK, male participant)

The variation between the cluster's eight criteria best-worst scores is shown in Figure 5.5.

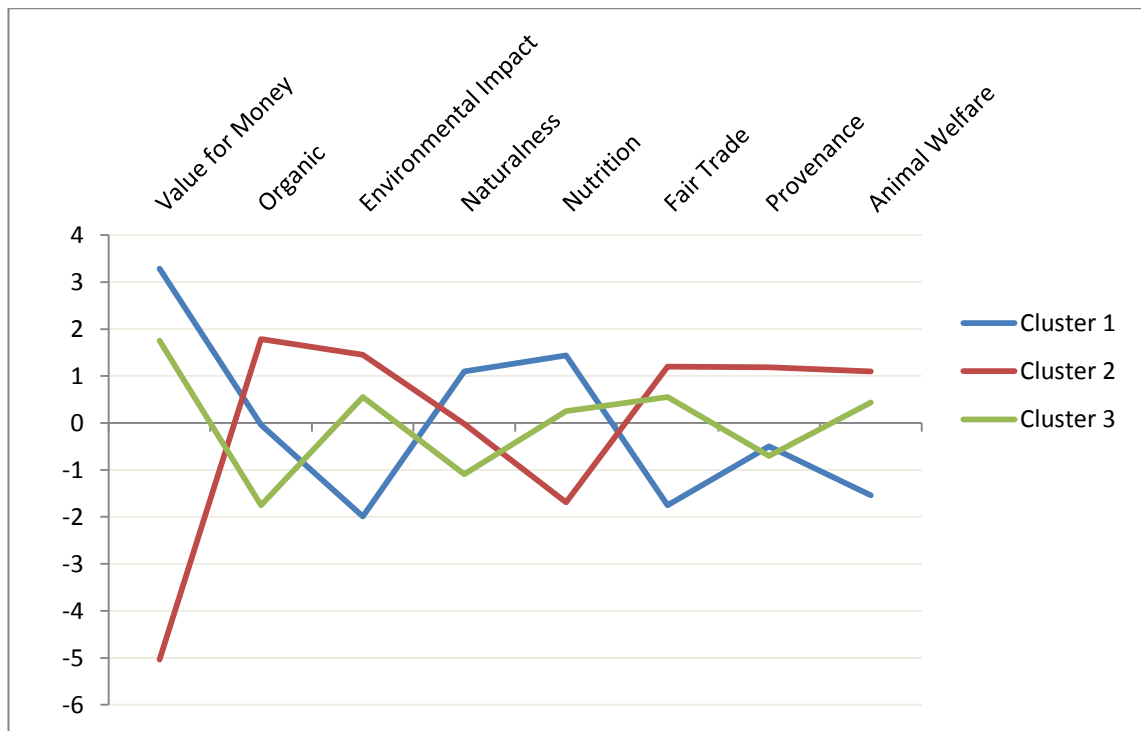


Figure 5.5 Overview of the Different Clusters

Criteria Differences among Clusters

It is evident from the comparison between Germany and the UK in Table 5.3, that Value for Money after Nutrition is one of the top three important criteria influencing food choices made in workplace canteens. Value for Money is the most important criteria in Cluster 1 and Cluster 3 with a differentiation of focus on health related and socially responsible criteria between clusters. There is growing interest for issues concerning health and sustainability amongst consumers but as Cluster 1 and 3 indicate, dishes that meet consumer criteria of importance do need to be offered at a price that indicates good value for money. Only in Cluster 2, socially responsible criteria indicating the fair treatment of environment and others are more important than the Value for Money of a dish. The difference between clusters for this criterion is the greatest. Organic is the most influential criteria when selecting dishes in workplace canteens in Cluster 2 whereas it is the least influential criteria of importance in Cluster 3. Environmental Impact scores lowest in Cluster 1 whilst being in the top three scoring criteria in Cluster 2 and 3. Naturalness is a guiding criterion when making choices in Cluster 1 although ranked sixth in Cluster 2 and the second least important factor in Cluster 3. In Cluster 1 and 3 Nutrition is of importance whilst being the second least important aspect after Value for Money in Cluster 2. The difference between Fair Trade, Provenance and Animal Welfare is minimal in Cluster 2 whilst they differ for Cluster 1 and 3. Here the importance of Fair Trade and Animal Welfare differs between Cluster 1, low, and 3, high, whilst there is similar importance associated with Provenance.

Food Information Provision

This second part of the questionnaire was designed to establish, what types of information provision are relevant to consumers. Therefore, a best-worst experiment was designed using attributes that were obtained from both a review of the literature and the analysis of the focus groups in empirical study 1. It is important to get an insight into the preference of information provision, as information provided is only meaningful to consumers if it is understandable and relevant (Van Rijswijk and Frewer 2012). Consumers have a greater interest in food information to enable them to increase their control over the food they eat and make informed choices (Van Rijswijk and Frewer 2012). The same methodology used for the first part of the questionnaire, consumer criteria of importance, was applied to this part of the survey. Utility scores were estimated on an individual level through hierarchical Bayes estimation. Hereby, the individual utility scores were also averaged within each country as presented in Table 5.7.

Table 5.7 Average Best-worst Utility Scores for Food Information Provision

	Germany (Utility scores)	UK (Utility scores)
Traffic Light Labelling	27.82	32.11
Information Box	25.62	27.06
Quality Assurance	20.22	18.81
Brands	10.78	9.79
Footnotes	9.56	7.6
Interactive Information (QR code)	5.99	4.63

The results are similar between the two countries in that the rank order of importance is identical and that in both Germany and the UK, Traffic Light Labelling, Information Boxes and Quality Assurance are the three top ranking information formats. However, there are differences in utility scores in that Traffic Light Labelling and Information Boxes score higher in the UK whereas, Quality Assurance has got a higher utility score in Germany.

The individual-level best-worst utility scores were subject to latent class analysis in order to identify the preference of the sample towards the six different ways of providing food information. Latent class cluster models were estimated from two to five clusters and the log-likelihoods (LL), Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) of each model compared as shown in Table 5.8. Although the AIC and BIC are useful indicators for the selection of the most suitable model, the interpretability is another key factor in selecting the appropriate number of clusters. Therefore, a four cluster model has been chosen based on the structure and interpretability of the clusters.

Table 5.8 Latent Class Cluster Models fitted to Individual-level Best-worst Scores of the six Ways of Providing Food Information

Model	LL	AIC _{LL}	BIC _{LL}	Classification Error
Food information				
One-cluster model	-4553.3433	9130.6867	9175.793	0.0000
Two-cluster model	-4461.9355	8852.9360	9067.843	0.0757
Three-cluster model	-4320.7106	8717.4213	8860.259	0.0601
Four-cluster model	-4247.2564	8596.5128	8788.216	0.0552
Five cluster model	-4208.8057	8545.6114	8786.181	0.0659

Notes: LL=Log-likelihood; BIC_{LL} =Bayesian Information Criterion based on the log-likelihood

The clusters for the second experiment of the survey relating to the preference of different ways of providing food information to consumers are shown in Table 5.9. All clusters were defined based on the revealed importance of each attribute that has been identified by the individual-level best-worst scores. Cluster 1 was tagged 'Tech-savvy' (30.3%) and as the name implies these are respondents who indicate a high preference for interactive information. Cluster 2 was tagged 'Heuristic Processors' (28.7%) as these respondents value easy to find data and like to make sense of this. Cluster 3 was tagged 'Brand Orientated' (22.1%) as these respondents are persuaded by brand authority. Cluster 4 was tagged 'Systematic Processors' (18.9%) as these respondents favour Footnotes, Information boxes and Quality Assurance.

Table 5.9 shows the utility coefficients for the different information provision formats, which are zero-centred. Within each criteria and cluster the utility coefficients sum to 0. The p-value associated with the Wald statistic for all of the six information provision formats is lower than 0.05, therefore all six variables are useful in segmenting the sample into four different clusters. Socio-demographic differences between the clusters were measured by chi-square. The country of the participant was the only significant ($p < 0.05$) variable whilst other socio-demographic variables tested for such as gender, age, country of birth, dietary requirements, household type, household size, occupation and highest level of education were not significant ($p > 0.05$).

Table 5.9 Latent Class Cluster Parameter Values for Food Information Provision

	Cluster 1 Tech- savvy (30.3%)	Cluster 2 Heuristic Processors (28.7%)	Cluster 3 Brand Orientated (22.1%)	Cluster 4 Systematic Processors (18.9%)	p-value	R²
Traffic Light Information	0.05	2.77	-2.71	-0.11	<0.01	0.46
Information Box	0.82	-1.53	-0.88	1.59	<0.01	0.25
Brands	-3.56	1.35	3.12	-0.91	<0.01	0.7
Quality Assurance	-0.72	-0.51	0.99	0.24	<0.01	0.08
Interactive Information	2.47	-0.44	0.56	-2.59	<0.01	0.38
Footnotes	0.94	-1.64	-1.08	1.78	<0.01	0.33
Socio-Demographic Variables						
Gender						
Male	31.2	27.5	30.0	36.7	0.690	n.a.
Female	68.8	72.5	70.0	63.3		
Age groups						
Below 20	6.3	12.1	5.7	11.7	0.229	n.a.
20-29	68.8	65.9	68.6	60.0		
30-39	9.4	15.4	18.6	15.0		
40-49	9.4	1.1	5.7	8.3		
50-59	4.2	5.5	1.4	5.0		
Over 60	2.1	-	-	-		
Country of birth						
Within country of residence	79.2	83.5	70.0	78.3	0.429	n.a.
Other EU country	11.5	8.8	12.8	13.3		
Outside the EU	9.4	7.7	17.2	8.3		
Dietary Requirements						
Religious	1.0	1.1	2.9	1.7	0.373	n.a.
Allergies	11.5	9.9	4.3	13.3		
Health related	3.1	1.1	4.3	-		
None	69.8	82.4	78.6	76.7		
Other	14.6	5.5	10.0	8.3		
Household type						
Single person	29.2	17.6	27.1	38.3	0.454	n.a.
Multi person	32.2	35.2	27.2	28.3		
Lone parent children <25	2.1	2.2	-	3.3		
Couple without children <25	14.6	20.9	15.7	10.0		
Couple, children <25	13.5	14.3	17.1	11.7		
Other	8.3	9.9	12.9	8.3		
Household size						
One person	19.8	12.1	22.8	21.7	0.831	n.a.
Two person	32.3	45.1	32.9	30.0		
Three person	20.8	19.8	20.0	18.3		
Four person	15.6	13.2	11.4	18.3		
> Four person	11.4	9.9	12.8	11.7		

Employment status						
Full time	43.8	64.8	60.0	48.3	0.36	n.a.
Part time	56.2	35.2	40.0	51.7		
Occupation						
ISCO-08 Category 1	7.3	17.6	7.1	5.0	0.179	n.a.
ISCO-08 Category 2	15.6	13.2	21.4	20.0		
ISCO-08 Category 3	58.3	49.5	40.2	50.0		
ISCO-08 Category 4	3.1	5.5	11.4	6.7		
ISCO-08 Category 5	9.4	12.1	10.0	15.0		
ISCO-08 Category 7	1.0	2.2	2.8	-		
ISCO-08 Category 9	1.0	-	1.4	-		
missing	4.2	-	5.7	3.3		
Highest level of Education						
Basic and vocational qualification	2.0	1.1	1.4	1.7	0.189	n.a.
Intermediate general qualification	6.3	2.2	11.4	3.3		
Gen maturity certificate/ vocational qualifications	53.1	47.3	34.3	43.3		
Higher tertiary education	35.4	48.4	47.1	50		
Missing	3.2	1.0	5.8	1.7		
Participant Country						
Germany	61.5	36.3	60.0	51.7	0.003	
UK	38.5	63.7	40.0	48.3		

There are significant socio-demographic differences between clusters for the country of the respondent. Whilst Cluster 1 (61.5%) and 3 (60.0%) have got higher memberships of German respondents, Cluster 2 has got a higher membership of UK respondents (63.7%). Cluster 4 has got a more even distribution between German (51.7%) and UK respondents (48.3%).

Cluster 1 Tech-savvy

The first cluster is with 30.3% the largest cluster and indicates high preferences for Interactive Information Provision (2.47). Additionally, Footnotes (0.94), Information Boxes (0.82) and Traffic Light Information are of importance. Therefore, this cluster is termed Tech-savvy. Hereby, Brands (-3.56) and Quality Assurance (-0.72) were less preferred. Although this cluster has got a high proportion of employees aged 20-29 (68.8%), there are respondents of all age categories in this cluster with higher memberships of employees 40-49 (9.4%) and over 60 (2.1%) compared to other clusters. This cluster has also got a higher percentage of German employees (61.5). More than half of employees in this cluster work full time (56.2%) in occupations that can be classified as Technician and Associate Professionals (58.3%).

Smartphone applications and technology are hugely present in consumers' everyday lives. This different approach to information provision opens new channels of communication between food producers and consumers. One of the possible benefits consumers see in this type of information provision is a greater opportunity for personalisation of information.

Cluster 2 Heuristic Processors

The first cluster is the second largest with 28.7% of participants and characterised by a high preference for Traffic Light Labelling (2.77) and Brands (1.35). Traffic light labelling gives quick at-a-glance nutrition information, whilst brands are a proxy for information about other quality aspects. Additionally, traffic light labelling is generally well received and many consumers are accustomed to this type of labelling. This cluster was named Heuristic Processors, as easy to find data is considered and processed. Footnotes (-1.64), Information Boxes (-1.53), Quality Assurance (-0.51) and Interactive provision (-0.44) were less preferred ways of receiving food information. Employees from the UK form the largest part of this cluster (63.7%) compared to German employees (36.3%). This cluster is predominantly female (72.5%) and has got the highest proportion of employees working full time (64.8%) that do not have any dietary requirements (82.4%) for whom quick, semi-directive information is sufficient.

Cluster 3 Brand Orientated

Cluster 3, tagged, as Brand Orientated contains 22.1% of the respondents and is defined through participants' choice of Brands (3.12), Quality Assurance (0.99) and Interactive Information (0.56). In this cluster Traffic Light Labelling (-2.71), Footnotes (-1.08) and Information Box (-0.88) were least preferred. Both countries are similarly represented in this cluster. Most employees in this cluster are aged between 20 and 29 (68.6%) and work full time (60.0%). This cluster has got the highest percentage of employees with religious dietary requirement (2.9), which might make use of quality assurance to establish the suitability of food products. Additionally, it is the cluster with the highest membership of couples with children (17.1%). Food brands are prominent in consumers' everyday lives and act as a heuristic signal when making food decisions and are recognised for their effectiveness of highlighting credence quality attributes. As a salient decisional factor, perceived quality influences consumer's behavioural intention through attitudes to a positive brand image.

Cluster 4 Systematic Processors

The fourth cluster containing 18.9% of the participants, termed Systematic Processors, favour Footnotes on menus (1.78), Information Boxes (1.59) and Quality Assurance (0.24). Systematic processing tends to be applied when there is a greater ability and willingness to process more

information. There is less preference for more directive ways of providing food information such as Interactive Information (-2.59), Brands (-0.91) and Traffic Light Information (-0.11) as these might not provide the amount or relevance of information desired. The membership of German (51.7) and UK (48.3%) respondents is fairly even in this cluster. Furthermore, this cluster has got the highest amount of respondents who have completed higher tertiary education (50.0%). It has also got the highest membership of participants that have allergies (13.3%) and therefore rely on food information provided on menus.

The different clusters are illustrated in Figure 5.6 describing the clusters of the different food information systems.

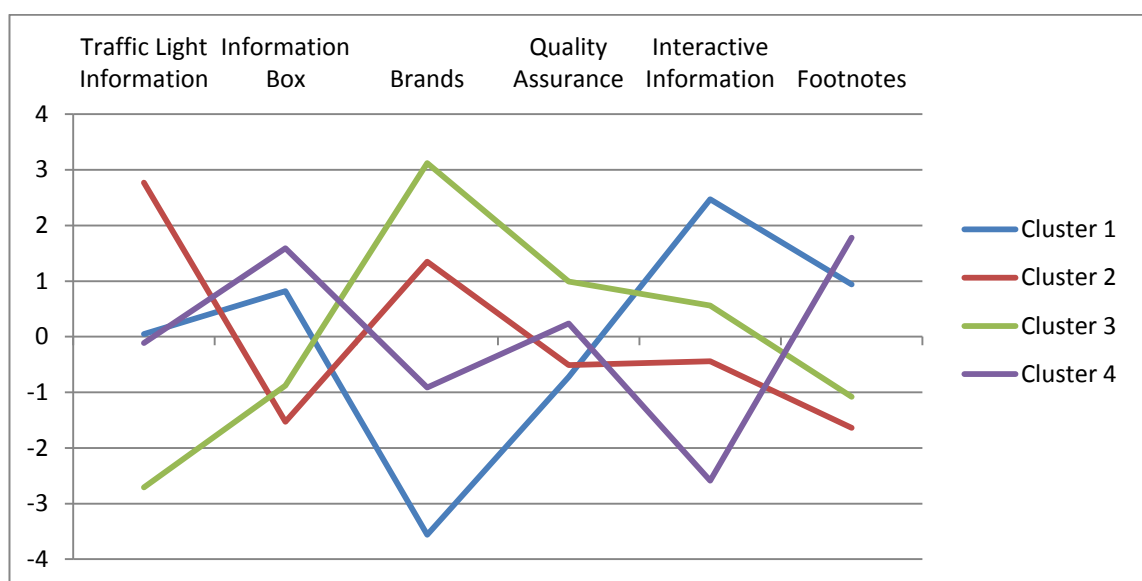


Figure 5.6 Illustrations of the Different Clusters

Differences between Clusters

Although Traffic Light Information was the most preferred format of information provision in the comparison between Germany and the UK, Table 5.7, it is evident from Figure 5.6 that the preference for this type varies greatly between Cluster 2 and 3 whilst it is similar between Cluster 1 and 4. Differences between clusters are less evident for Information Boxes, yet these score positive in Cluster 1 and 4. There is diversity between clusters for the use of Brands as a way of communicating food information with this being the most important factor in Cluster 3 and second most preferred factor in Cluster 2. The difference between clusters for Quality Assurance is less between clusters. Quality Assurance is not the most preferred format in any of the clusters, but is of importance in Cluster 3 and 4. There is a strong difference between Cluster 1 and 4 regarding the preference of Interactive Information provision. Whilst Cluster 1 and 4 prefer Footnotes, these are less favoured in Cluster 2 and 3.

5.3 Empirical Study 3

Interviews (n=10) were conducted with contract catering managers in order to assess their views on consumer criteria of importance and consumer needs including ways of increasing trust in workplace canteen provision. Therefore, contract catering managers (n=5) in both Germany and the UK participated in semi-structured interviews that lasted approximately 30 minutes; 8 male and 2 female contract catering managers took part in the study. The interview guide used is provided at Appendix 5.

Participants of this study drew on their experience from different styles of workplace canteens, in house catering with a traditional food offering as well as workplace canteens that incorporated a wide variety of modern dishes and food trends. The size of the business also varied with some canteens catering for 300 employees whilst others were catering for 1400 employees. This enabled a description of different concepts and a rich description of different experiences. Table 5.10 outlines the characteristics of the sample.

Table 5.10 Characteristics of Canteen Operators

Participant	Country	Age	Gender	Size of business	Length of service
1	GER	55	Male	800 meals per day	25+ years
2	GER	28	Male	550 meals per day	5 years
3	GER	38	Male	300 meals per day	15+ years
4	GER	45	Male	1400 meals per day	20+ years
5	GER	56	Male	600 meals per day	30+ years
6	UK	50	Female	350 meals per day	23 years
7	UK	58	Male	400 meals per day	30+ years
8	UK	43	Female	450 meals per day	20+ years
9	UK	45	Male	1200 meals per day	25+ years
10	UK	54	Male	750 meals per day	30+ years

5.3.1 Perception of Criteria of Importance

Contract caterers referred to different criteria that they perceived to be important to their customers and how these are being accommodated. Thereby, it can be differentiated between predetermining aspects that are generally important to the majority of consumers and aspects that vary in importance depending on different values, identities and lifestyles.

Predetermining Aspects

The different aspects that were perceived to be of highest importance to customers are outlined in Figure 5.7

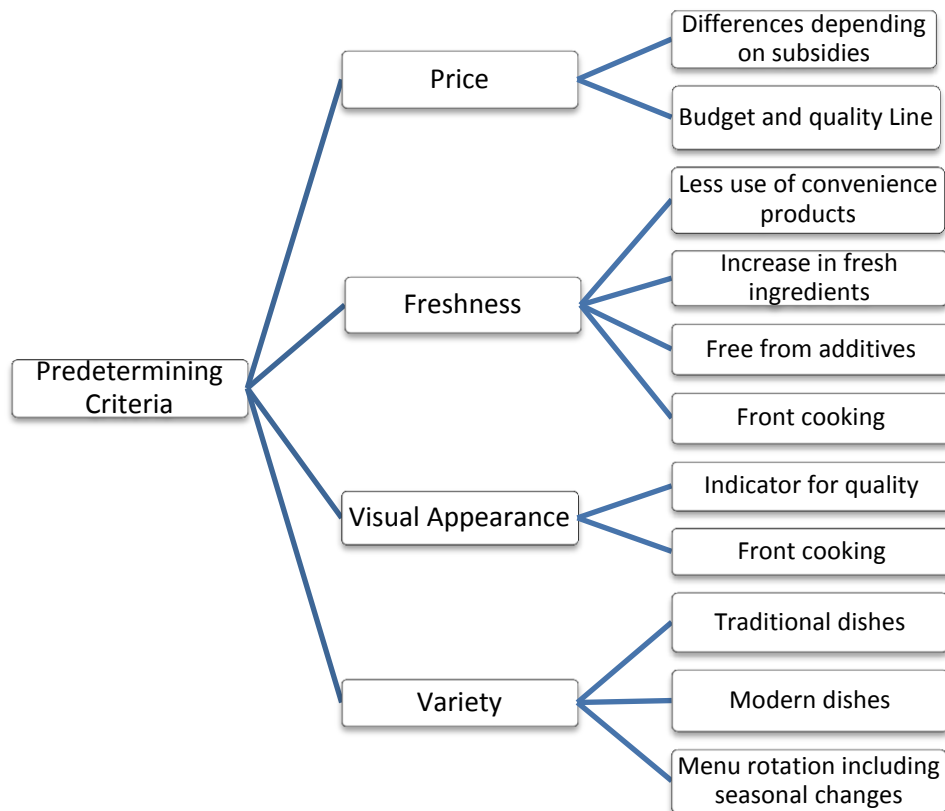


Figure 5.7 Themes and Subthemes summarising Predetermining Criteria of Importance as seen by the Operators

Price or Value for Money

Opinions about the importance the price of a meal plays in their customers’ decision process varied between interviewees. It was differentiated between customers, for whom the price is more important than other subjective criteria such as freshness or indulgence and those aiming for higher quality but at a reasonable price. Similarly, to the results of empirical study 1, this aspect was determined but described slightly different by operators and consumers. Consumers emphasised the importance of value for money, whereby both perceived quality and cost of a dish influence the decision making process. However, operators referred to this point as price relating to the cost of the dish only. There was a perception amongst operators that there is a higher emphasis on the cost of the dish rather than the ratio of perceived quality and cost. Nevertheless, operators did recognise that their customers are discerning in regards to quality. In some cases, interviewees referred to surveys they had undertaken themselves to show that the price of a meal and the value for money customers are receiving is the most important aspect.

“We have conducted experiments that show that the price is most important in so far that we get more covers with a cheaper price, so unfortunately price is most important for people” Male Participant, Germany

The main aspect influencing the price of the dish are the level of subsidies; whilst all German interviewees reported that they can offer higher quality at a reasonable cost due to subsidies, this was different for contract catering managers interviewed in the UK.

“We are subsidised in different categories and are also open to the public so that we need to have an adequate price for the public, a subsidised price for staff, so the subsidised dishes need to be offered at a value price but cost price is the first subsidy. But we can’t charge by far what a normal restaurant would charge.” Male Participant, Germany

In order to cater for both aforementioned types of consumers, two menu lines are typically offered including a low-priced dish and dishes that are of higher quality at a higher but still competitive price. Overall, the price charged for a meal was recognised as the most difficult aspect to balance. Part of this was considered to be the case due to the profound consumer expectations of restaurant quality at canteen price.

Freshness

Freshness, was perceived to be one of the most important criteria influencing guests’ food choices. Customers were described as discerning, therefore, knowledgeable about high quality food.

“Our customers do expect fresh food at a high quality and are very discerning and they know what good looks like.” Male Participant, UK

This has led to a shift towards an increased use of fresh ingredients and less convenience products. However, customers are unsure about establishing the freshness of ingredients and have the impression that a high amount of additives and preservatives such as monosodium glutamate is used in canteens. In order to demonstrate the use of fresh ingredients to customers, methods such as front of house cooking are used. However, given the nature of time constraints in canteens, food is not prepared as fresh as apparent. Therefore, meals are partly cooked and finished during the front cooking in front of the customer. Furthermore, one German contract caterer especially positioned themselves as a fresh food specialist, where the majority of promotion and advertising is focusing on the aspect of freshness.

Visual appearance

Similar to freshness, visual appearance was mentioned as an aspect which is demonstrated through front of house cooking. Thereby, the visual aspect of having food produced individually coupled with the smell of producing the dish is trying to influence the guests’ decision. Being able to oversee the cooking process or view a sample dish is an indicator for quality and considered as an influential aspect for consumers. This was seen as more profitable, as the underlying assumption for the use of front cooking or displaying sample

dishes is that customers have a higher perception of quality.

“People think the quality is higher if they see you cook it and we can make a good profit, we also have BBQs in the summer and people like that. It also gives them the opportunity to ask the chef rather than the girls.” Male Participant, UK

Variety

Interviewees recognised that the majority of their customers make use of their canteen on a regular, daily basis. Therefore, one of the main priorities is to have a good variety of dishes on offer, combining traditional and diverse dishes as well as rotating menus frequently to cater for different consumer demands and incorporating seasonal ingredients. This also keeps in line with a consumer preference for ‘lighter’ dishes in the spring and summer months, and more substantial lunches during the autumn, winter period. Furthermore, dishes are created to offer increased flexibility and choice for guests. However, dishes that are popular form a staple part of the menu. Some caterers saw it as a challenge to suit the different needs and offer both traditional and modern dishes. Having a clientele that prefers traditional food was used by some as a reason not to cater for other aspects that are important to employees such as incorporating organic ingredients, even though these are not mutually exclusive. Special emphasis here was the incorporation and demand for comfort food, especially for those canteens catering for older, male guests.

“They are on their break and been on their feet all day, all they want is some nice comfort food... nothing fancy...” Female Participant, UK

One German interviewee criticised colleagues as being too single-minded in this regard, challenging that a rounded approach to meeting various consumer demands exist but that it is easy to hide behind the perception that guests want the same traditional food they did in previous decades. He described how in the canteen he operates, a balance between traditional and novel dishes is offered including traditional vegetarian or vegan dishes. Often, the traditional dish is also the dish offered at a lower cost. A world counter was discussed as a way of incorporating new trends such as street food and ethnic cuisine.

General Criteria of Importance- Meta Preferences

The following criteria were seen as important to consumers depending on their values and lifestyle. Incorporation of these aspects into the daily food provision of workplace canteens differed between different sites and were influenced by both interviewees and contract caterers’ perceptions of importance attributed to these criteria.

“It is not my place to tell people how to live their life, but we as a company and I personally do try and act environmentally friendly, which is important to a lot of our guests.” Male Participant, Germany

Figure 5.8 outlines the general criteria of importance, which were seen as meta preferences and therefore dependent on consumer profile.

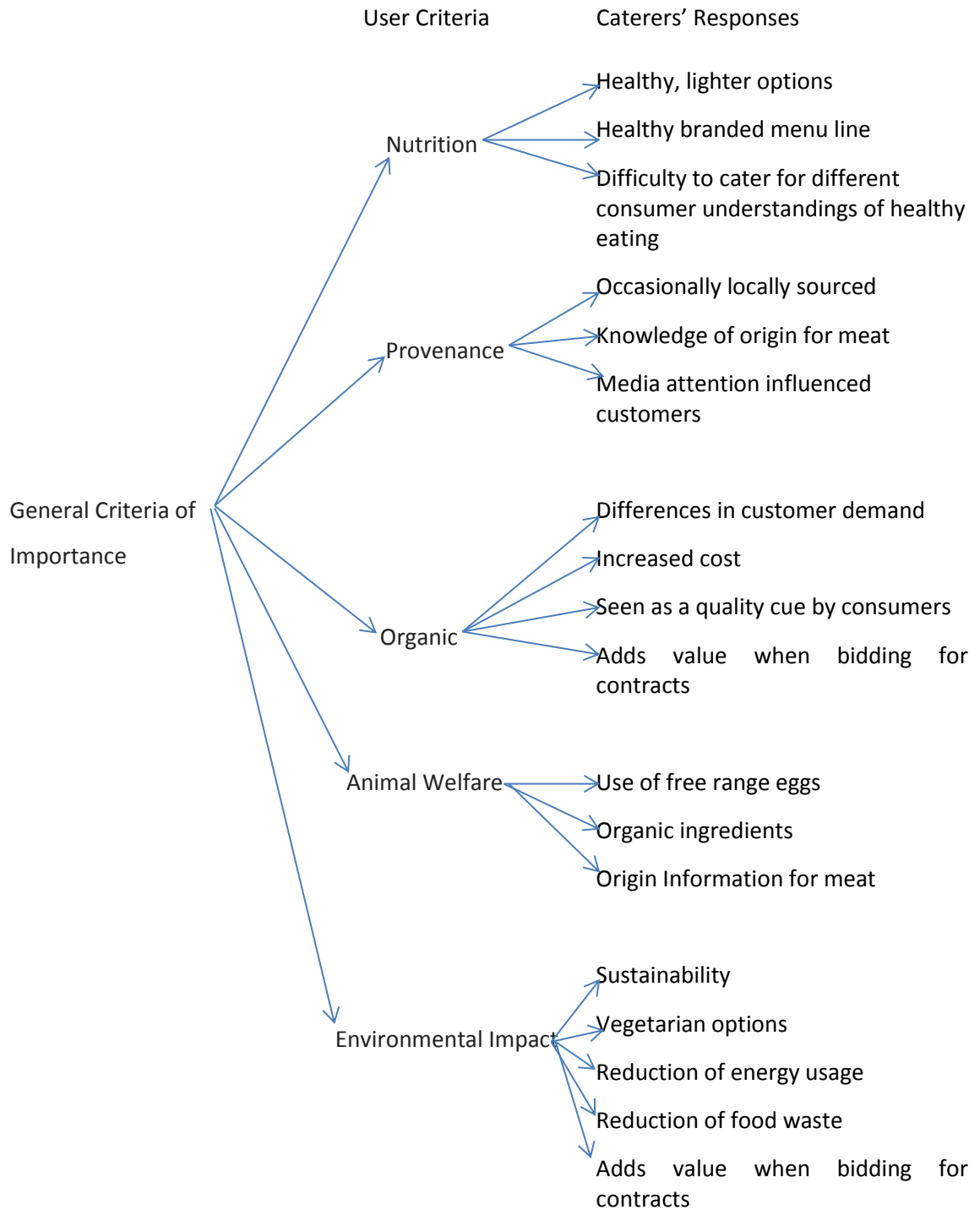


Figure 5.8 General Criteria of Importance influencing Dish Selection in Workplace Canteens as seen by the Operator

Nutrition

Customer emphasis and demand for healthier dishes was seen as a factor that had increased over past years. Offering healthy and lighter dishes is not only necessary to cater for guests' demands but also to align with corporate health strategies of their clients.

"Before people weren't really that bothered but nowadays there's far more about health and wellbeing of staff and people who use our restaurants. And we want to enable people to make that choice even before the service or before they get to the hot plates." Female Participant, UK

It was perceived that the demand for healthy food and alternative cooking methods was not an important criterion for all canteens, depending on the profile and demand of the guests with a differentiation associated with gender and type of occupation. Hereby, canteens in manual workplaces where employees are predominantly male were mentioned to not have a great focus on the nutritional composition of the food served. Nevertheless, in workplace canteens catering for the health or pharmaceutical sector or in places where most employees were female this was seen as one of the most important aspects.

"There is increased demand for healthy food amongst our clients in the pharmaceutical sector. Especially women with a high level of education have got a higher demand...to 'blue collared' sectors this does not appeal as much." Male Participant, Germany

In terms of the availability and range of healthy dishes, however, the salad bar was mainly referred to when describing what type of healthy food was on offer. Furthermore, two of the interviewees in Germany talked about a nutrition branded menu that incorporates a healthy dish rotating between the traditional and world food counter that goes beyond the availability of a salad bar.

Independent of the type of canteen, meeting the demands of guests in terms of nutrition was described as a challenge. This was especially due to customers' dissimilar understandings of what constitutes a healthy diet and distinctive underlying philosophies. Therefore, managers found it demanding to find a happy medium that suits the majority of their guests.

"You try to put low fat options available out for them but a lot of people nowadays are doing slimming world, weight watchers and things like that and obviously we are not in a position just yet to compete with that. So what we do try to do is we try to put like a healthy option on but what's healthy to one person is not healthy to the next." Female Participant, UK

Provenance

The increasing role that the provenance of food plays has been recognised as being influenced by the media attention this topic has received, whereby consumers have become more knowledgeable. From the perspective of the interviewees, provenance was strongly linked to putting an emphasis on local and national ingredients. Hereby, the perception was that their guests would like to know when ingredients were sourced locally.

It was recognised that communicating the provenance of food through quality assurance or dish description on the menu, does increase sales. In the UK, there has been a shift towards only purchasing meat products from the UK and Ireland following recent problems in the food chain such as the horsemeat scandal. Nevertheless, it was noted that due to contracts with suppliers and restrictions, it is not always possible to purchase local ingredients, although these at times can be a cheaper alternative. Additionally, it was criticised by one German interviewee, that although the idea of increasing the amount of local produce is supported, from a logistical perspective it is difficult to get access to adequate products in terms of quality and volume. Reasons for this were that a large share of locally available products is already accounted for and sold in the retail sector. Simultaneously, agriculture was described as being a declining sector in Germany, therefore, it was considered to be unlikely to change.

“This is the struggle we have though and people don’t realise this. We are massively behind as an industry, that’s all of us, not just our company. Supermarkets are already buying and marketing their products as sourced locally. And farming and agriculture aren’t a growing sector in our country, if anything it is the contrary, so we are challenged to find access to a lot of local products and to meet our quality standards especially for meat products.” Male

Participant, Germany

Nevertheless, a different contract catering manager from Germany explained how their approach to incorporating more local ingredients led to an evaluation of their business concept. Consequently, a decision has been made to extend the effort to increase the amount of local sourcing beyond raw and fresh ingredients to also supporting local suppliers that provide drinks and packaged snacks sold. One of the main motivations behind this decision was from an ethnocentric perspective to strengthen local economy and support regional employers.

Overall, putting a higher focus on local ingredients was seen as a necessary requirement from both a business to business and business to consumer perspective in both countries. However,

this did not include a shift towards being more transparent and providing the provenance of dishes for the whole menu regardless of the origin of food.

Organic

Views about the incorporation of organic ingredients were mixed in terms of consumer demand and profit margins. Thus it was explained that some organic products such as pasta and rice are routinely purchased and that their use is certified, whereas for other products decisions were made based on quality. Nevertheless, it was questioned by some interviewees, in how far guests are willing to pay a premium for the use of organic ingredients in dishes.

“We use the organic logo on our menus occasionally, because this is a big issue in Germany, especially in the retail sector, but in reality only 6% of consumers buy these products.” Male Participant, Germany

Therefore, in most cases, organic dishes are occasionally highlighted on the menu, as demand was not perceived high enough to warrant increased costs associated with organic ingredients on a daily basis. Furthermore, commitment to make changes to organic products is linked to demands of contracts and achieving quality assurance standards when bidding for contracts.

Animal Welfare

Although animal welfare was recognised as important for consumers, meeting consumers' demands was mainly achieved through the use of free range eggs. This was reasoned due to perceived high consumer emphasis on free range eggs as a sign for keeping in line with welfare standards. Whilst contract catering managers recognised the growing relevance animal welfare has for consumers, it was also indicated that animal welfare is not on every guest's agenda.

“Animal welfare is of importance to some of our customers and in order to understand the rationale behind this, we have arranged for some of our chefs to follow the meat production farm to fork...” Male Participant, Germany

Nonetheless, having a sound knowledge of how meat is produced and of the origin of meat, has following on from food scandals of past years become a major priority of some contract caterers' corporate policy.

Environmental Impact

Contract catering managers, recognised an increase in their number of guests who show an interest for sustainability, the environment and non-meat options including vegetarian dishes or dishes containing meat alternatives and referred to different approaches of how these demands are met. Hereby, it needs to be distinguished, between sustainability and environmental practices used in dishes or operational practices such as putting policies in

place to reduce energy consumption or food waste; in some cases these two strands intertwine. A company policy concerning sustainability and greener operation practices was in place and communicated to consumers in most canteens. However, the decision to incorporate dishes that are environmental friendly, for example seasonal, depends on the contract caterers' perception of how important this aspect is to their consumers. Furthermore, this was influenced by how seriously this aspect was taken by the different contract catering managers. Most of the interviewees, nonetheless, did make their commitment towards putting practices into place and meeting consumer demands in this aspect seriously:

“Sustainability is not a just a phrase but something we take seriously, we don't get it 100% right but are on a good way” Male Participant, Germany

The discussion in the media around the introduction of a 'Veggie Day' was referred to by one interviewee. Thus, he explained how he disagreed with this concept in so far, that caterers should not hide behind this kind of intervention but rather promote attractive, meat-free and environmentally friendly dishes on a daily basis.

“I hate it when the media calls for a veggie day, nobody is going to use that, if Thursday is our veggie day and you have client meetings and don't eat at the canteen then what use is it to you? For us it's a given that every day there are good vegetarian options.” Male Participant, Germany

Lastly, environmental aspects were not only discussed from a business to consumer perspective but also from a business to business perspective. Therefore, the corporate strategy of their client also influences the direction and commitment of contract catering managers in this regard.

There was an awareness of a lack of information communicated to consumers, whereby some information is available but not communicated whilst information on other aspects is not always passed on through the supply chain. Therefore, contract caterers would have to go to extensive efforts to obtain this information.

5.3.2 Customer Relationships

Maintaining a good relationship to customers was seen as imperative to improve guests' quality perceptions and trust. Thereby, contract catering managers stressed the importance of being visible to the consumer and having an open door policy. Furthermore, in some workplace canteens, feedback mechanisms were established whereby, the client and guests can ask questions and make suggestions. Receiving feedback was seen as a good opportunity

to get greater insights into consumer demands of each site. Approaches taken included surveys evaluating quality of food and guest satisfaction. Overall, having a feedback mechanism in place was common practice amongst operators interviewed.

“Customers want personal service and not robots. They come because they like us and our hospitality towards them, we talk to our guests, have eye contact, are friendly and our team is also evaluated on this. We ask our customers about their experience regularly and on a scale from 1 to 10 have found that the importance of a friendly team is high on the agenda” Male Participant, Germany

Additionally, front of house cooking counters are designed to encourage dialogue and contact between members of staff and customers. It was perceived that front of house cooking encouraged customers to ask more questions as they felt more comfortable to have them answered by a chef rather than a different member of staff. Moreover, some contract caterers invite suppliers for open days to show transparency and help answer questions.

In order to demonstrate approachability, having knowledgeable staff that encourages questions was seen as a further step in maintaining a good relationship with customers. Therefore, members of staff undertake different forms of training ranging from briefing sessions on a daily basis to workshops that help to understand certain lifestyle concepts such as vegan diets or allergies. Daily buzz sessions are used in the UK to inform front of house members of staff about the daily menu so that this information can be passed on to customers. In Germany, one interviewee described an incident of a customer not being taken seriously for requesting information about a vegan dish. Following this, a training day had been organised that included a visit to a local conventional farm and a slaughterhouse to help members of staff understand customers’ motivations for following a vegan diet. This was seen as an important step for experienced staff to understand changing consumer needs and to understand that changing lifestyles are prevalent and not a fad.

5.3.3 Bad Image and Consumer Perception of the Canteen

A bad image of workplace canteens was seen as a reason for consumer perceptions of inferior quality of food served. Steps taken to work on the image of canteens include incorporating aspects of ambience consumers are used to in private sector foodservice. These range from incorporating aspects of interior design used in the private sector, improved service provided by members of staff to avoiding the use of the term canteens and replacing it with work restaurant or work gastronomy.

“We are not solely serving food but are delivering an experience and that is important to us, we are trying to give the guest the feeling of a restaurant but at the same time we have not got the same parameters and opportunities. At the end of the day I need to make sure we can serve 1000 meals per day” Male Participant, Germany

Nevertheless, contract caterers recognised that the bad image and perceptions were not unfounded and were based on bad food and customer service which consumers had encountered in the past. The perceptions of low quality food being served in workplace canteens has also been influenced through media portrayal of the food served in other canteens and public sector foodservice outlets such as schools and hospitals. However, interviewees were passionate about the fact that the quality standards of food served has improved. Furthermore, it was seen as difficult to change consumer perspectives and outlooks compared to the retail industry or private restaurant chains who have worked on their image through media campaigns. Although, the quality of food offered in workplace canteens has increased, this has not been communicated to the consumer efficiently.

5.3.4 The Menu as a Source of Information

One of the main sources of information is the menu which is generally available in hard copy at the entrance and counter of the canteen. One canteen in Germany presents their menu on electronic screens which are placed over the counter and through electronic information terminals. Furthermore, the menu is also sent to employees through the employers’ intranet system and is available to view on the webpage of the contract caterer. Some canteens in Germany use an app, where customers can view the menu in advance. Additionally, some canteens in both Germany and the UK use Facebook and Twitter to post menus and pictures of dishes throughout the morning. This was seen as a good way to inform customers about dishes on offer as many customers check social media platforms on their phones throughout the day:

“You know what it’s like, you check your phone and then we pop up with a picture of what’s on offer and then you think: ‘oh that looks good, I might go there today”. Male Participant, Germany

The menu was seen as an important tool to entice guests to come to the canteen and provide some information about the dishes. However, it was seen as important by many to keep the menu neat and organised without adding too much information making it appear cluttered.

Certain dishes, including recipes and nutritional and allergen information, where available, are developed centrally by the contract caterer. From this established database, menus can be developed on site to cater for the different needs and tastes of the employees using the

canteen. Therefore, it is the decision of the contract catering manager or delegated member of staff designing the menu how much information is made available on the menu. Views here differed between interviewees between providing information through menu labelling or having it available on request.

5.3.5 Provision of Information

Food information in workplace canteens is predominantly provided through the menu. Additionally, other traditional print materials are used to communicate information about the origin of ingredients for example leaflets or banners. One outlet in Germany provides information about the percentage of regional suppliers and products alongside a percentage of convenience and fresh food used in dishes through a 0 to 5 classification. Furthermore, some contract catering managers in Germany described how they inform about additives present in the dishes through the use of footnotes on the menu. However, in regards to nutrition information, in some workplace canteens this was displayed on the menu, available on request or kept in a folder near the till whilst in some outlets this type of information was not available to consumers at all.

Allergen Information

Discussed in greater detail was the provision of information on allergens which has been introduced through the EU regulation 1169/2011, whereby from December 2014, allergen information has to be available on the product, menu or on request. Making this information available to consumers was handled differently with allergen information being available on request in most canteens in Germany and the UK. Reasoning behind this approach was that adding allergen information to the menu makes it appear cluttered and overloaded. In canteens, where allergen information is printed on the menu this is communicated through the use of symbols that are explained at the bottom of the menu. Two of the interviewees in Germany explained that having an electronic system in place to manage allergen information and displaying this electronically offers the advantage that changes in products and suppliers resulting in changes to the allergen information can be passed on immediately to consumers.

Although the legislation to provide allergen information was adhered to in all the workplace canteens, the legislation and lack of guidance of how to best provide the data was criticised. Some interviewees deemed the new legislation as unnecessary, as customers who suffer from allergies reportedly have a general idea of dishes that would be suitable for them to eat. Nevertheless, not all interviewees shared this opinion but some further criticised that there should have been more help to implement the change in information provision. One German contract catering manager especially, suggested that considering this legislation was

established EU wide, allergens should have been coded and given a symbol so that consumers are able to recognise the presence of allergens in food regardless of setting or country.

“The difficulty with the new legislation is that the EU did not give us symbols or letters to use for allergens which would have given consumers clarity in all of the countries.”

Male Participant, Germany

Currently, allergen information is supplied, which is a first step in helping consumers. However, different formats in each catering outlet are used. A further point of criticism included that not all suppliers were able to provide this information in an accurate and timely manner which made the implementation of new systems that display allergen information difficult.

Nutrition Information

Contrastingly to allergen information, nutritional information was not available in all canteens. There were different opinions as to whether customers require this type of information. One canteen in the UK has nutritional information available in a folder that can be accessed on request but it was noted that not many customers ask to see the folder for information. A different contract caterer in Germany has got a branded menu standing for the provision of healthy dishes under a certain threshold of kilocalories that are available in different canteens. Therefore, nutritional information in the form of calorie information is available but only for the branded dishes.

Lack of knowledge of how to access and portray this information was seen as a barrier which was also enforced by the need to provide accurate information. One contract catering manager from the UK described how she had no knowledge or means of making this information available whilst she was cautious about providing wrong information. Therefore, she explained that her chefs aim to provide better options incorporating lower fat alternatives rather than providing nutrition information. Changes to legislation has also been given as a reason for not providing nutrition information. A German contract catering manager clarified how previously, nutrition information had been displayed through percentages of the reference intakes for carbohydrates, fat and protein. Through changes in legislation, he criticised that nutritional information has to be displayed for the big seven (energy, fat, saturates, carbohydrates, sugars, protein and salt) per 100g/ml respectively. Consequently, a new system had to be established whereby this information is extended to the big seven for all recipes which will require time to be adapted.

Further, it was acknowledged that although there is a growing demand for information and a call for healthier dishes from both employers and customers, people should still be able to make their own decisions about what they eat.

“Something we have to be mindful of is how much pressure are we putting on people who are using our services by asking them all this, by giving them all this information when a lot of the time people just want to come in a grab a bacon sandwich and a cup of coffee... And I think if we are putting all this out people going to overanalyse it and think: ‘oh god we are looked at for doing this and we are getting checked over for doing that’... At the end of the day what you chose to put in your mouth is totally your decision.” Female Participant, UK

Similarities and Differences between Consumer Criteria of Importance and Perceived Consumer Criteria of Importance by Operators

Comparing the outcomes of empirical study 1 and 3 in relation to criteria of importance that influence food choices made in workplace canteens it is evident that there is consensus about what criteria are relevant to consumers. Nevertheless, there are also differences between the consumers and operators as outlined in Figure 5.9.

There were similarities between criteria mentioned by consumers and operators recognising Variety, Nutrition, Provenance, Organic, Animal Welfare and Environmental Aspects as important. However, consumers classed Provenance, Organic, Animal Welfare and Environmental Aspects criteria relating to Social Responsibility due to a fuzzy understanding of some of the concepts behind these terms, whereas operators classed these criteria as general criteria of importance that can act as meta-preferences.

For some criteria different terminology was used by consumers and operators. One of the main criteria whereby different terms were used is value for money and the price of a dish. Hereby, consumers put high importance on perceived quality as well as price of a dish whereas, operators perceive that only the price of a dish is of relevancy to consumers. Whilst consumers value naturalness including freshness of ingredients when making dish choices, operators recognise freshness as an important predetermining criterion that is always important to consumers. Interestingly, consumers put a high emphasis on taste and visual appearance when selecting dishes, operators only recognised visual appearance to be of importance.

Taste and portion size were two criteria mentioned by consumers to be influencing dish decisions that were not mentioned by operators. This was also applicable for one of the social responsibility criteria: Fair Trade.

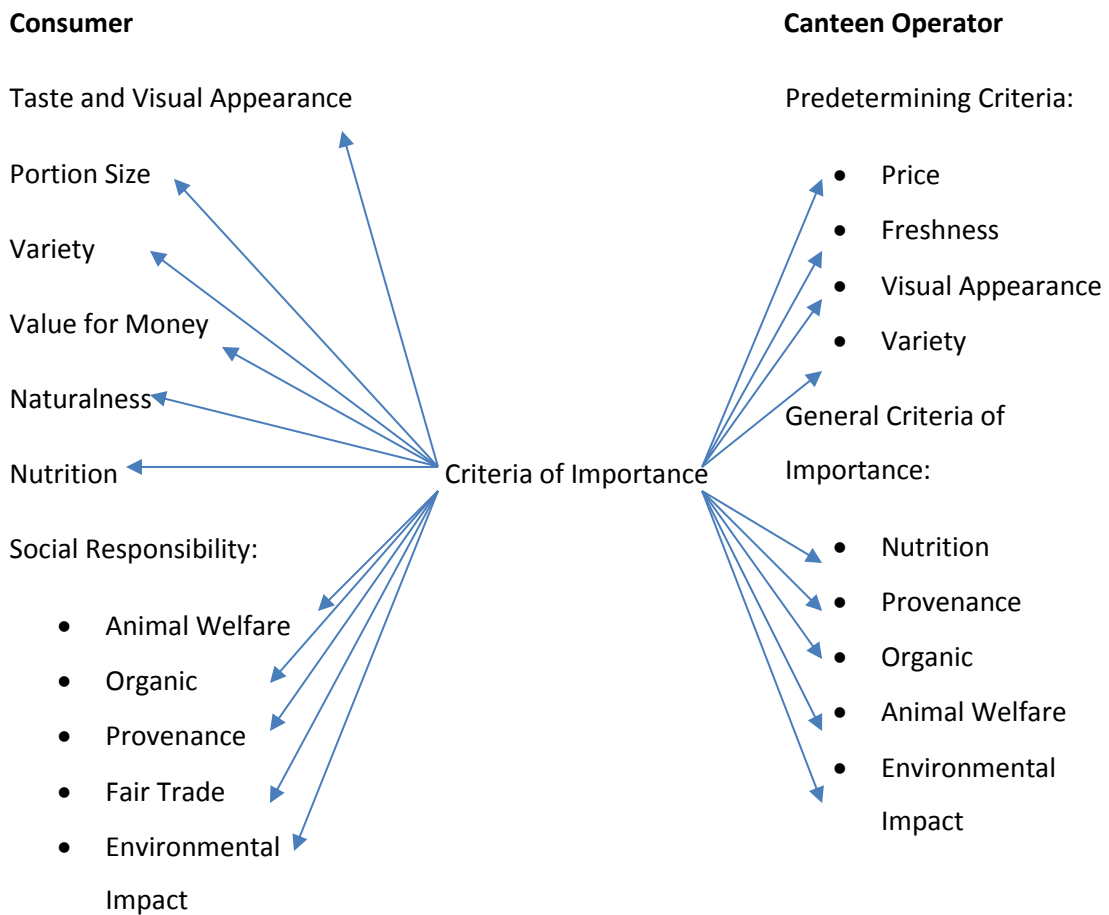


Figure 5.9 Comparison of Criteria of Importance between Consumers and Workplace Canteen Operators

5.3.6 Barriers to Meeting Consumers' Informational Requirements

Whilst the interviewees acknowledged the need to align the provision of information with consumer demands, attention was drawn to operational constraints that affected the ability to fully implement strategies. Contract catering managers often depend on corporate policy when it comes to providing food information. Additionally, the absence of a system that can help to provide information on criteria on demand was seen as one of the main obstacles in providing further food information. Contract catering managers interviewed felt that although there is growing wish for more information, providing this was out of their remit as they have to adhere to corporate standards where a standardised system is missing. Nevertheless, it was described as a one off challenge to put a system in place, which if developed centrally, would help many catering units. Menus and procurement contracts are developed centrally and it is here, where nutritionists and dietitians have access to nutritional information. This

information is passed on to the catering outlets, but these do not have the capacity or knowledge to adapt this information should they wish to alter the menu. Similarly, the commercial supply chain is maintained centrally, which makes it difficult to alter menus and customise these towards customer preferences. In some instances, it is possible for contract catering managers to purchase from other suppliers such as local or organic products, however, this consequently leads to a lack of information available on purchased products. Reasoning behind maintaining the supply chain centrally is the adherence to strict health as well as consumer protection policies which make investigation into incidences easier.

A further barrier to making information available was a lack of knowledge of how to portray and communicate given the limited space available on a menu. One interviewee from the UK acknowledged that the provision of traffic light information would be favourable but this information was not provided centrally and his team of staff did not have the knowledge to develop this idea further. Although, there are differences in regards to the amount of food information communicated, it was recognised that consumer demand is increasing and that it is necessary to accommodate customer needs. Software solutions, available to help with the management and communication of information, were discussed, yet again implementation was deemed as a corporate decision.

Besides administrative challenges, one interviewee from Germany felt that focussing on providing more information deviates from the main objective of providing fresh food, criticising that the administrative burden on a daily basis is already high. Furthermore, it was questioned by one interviewee from the UK in how far the provision of information influences chefs' flexibility to adjust items on the menu as this would influence the accuracy. Providing food information was regarded as a burden that alienates the chefs from putting their efforts into preparing fresh food as expressed by one interviewee from the UK:

“You are caught between the devil and the deep blue sea aren't you... do you go and put all this information out there or do you just go and do and maintain what you are doing and put the options out there...” Female Participant, UK.

From a more practical perspective, it was recognised that there is a discrepancy between offering extensive information and using local small scale suppliers. Large suppliers, offering a range of products, are more likely to have an established information system whereby ingredient information can be transferred to the consumer. For smaller producers that deliver produce to the catering outlets directly, this information is not always communicated and therefore, cannot be passed on. Even large suppliers often struggle to pass on information. The same principle applies to the incorporation of fresh ingredients, where perishable

products that are bought more regularly do not carry the same amount of information that convenience products do. Therefore, decisions have to be made between offering fresh product and providing food information.

Reasons for not making information available to consumers

Administrative and practical reasons such as corporate regulations, lack of knowledge of how to portray information and unavailability of information were given as barriers to communicate to consumers and therefore meeting consumer requirements.

“We would struggle to make that information available on a daily basis.” Female Participant, UK.

Nevertheless, there is a vast amount of information that is available to contract caterers but is currently not passed on to consumers. From a food safety perspective, information about the chain of provenance and animal welfare aspects are available for each product and supplier. This information however, is not communicated to the consumer to avoid an overload of information. Although it was recognised that consumers show more interest in the food they eat, it was questioned to what extent consumers require information about different criteria such as nutrition, provenance and other ethical aspects such as animal welfare or fair trade.

A further point was made comparing private sector chain restaurants in which consumers have been able to access greater amounts of information compared to workplace canteens. When eating out commercially, consumers choose from a limited menu which does not rotate as frequently, making it easier to provide information on ingredients. Furthermore, the percentage of convenience products used in some of the private sector such as restaurants is far higher compared to the workplace canteens where there has been a greater shift towards using ‘fresh’ products.

Consumer Misperceptions – a barrier to meeting consumer requirements

Overall there was consensus that most consumers have become more aware and critical towards conventional production methods and consequently, have a greater desire for information about their food. In the opinion of the interviewees this critical attitude has been influenced by media portrayal of past food scares. Additionally, contract caterers recognised how they have missed opportunities to establish a better image and have not invested in campaigns similar to those seen in the retail industry or private sector to establish consumer trust. Nevertheless, it was questioned, to what extent consumers would trust, understand and make use of provided information. The use of additives such as Monosodium Glutamate was given as an example to demonstrate this. Contract caterers recognised that consumers have a

demand for fresh food that is free from additives and have reduced the amount of additives used in dishes served. Yet, there is strong consumer belief that food served in workplace canteens contains additives and preservatives.

“People want to know so much like e numbers and MSG and additives when we don’t even use those and also they don’t understand the concept anyway not all e numbers are harmful to health there is this half knowledge amongst the consumers.” Male Participant, Germany

Moreover, the discussion around the introduction of the possible Transatlantic Trade and Investment Partnership between the European Union and the USA and its impact on the food system has been frequently portrayed in the media in Germany. This has led to a discussion of the use of genetically modified foods and interviewees perceived that this left some of their customers anxious. Under current regulation, genetically modified ingredients can enter Europe as food, animal feed, or biofuels. These must be approved by EU regulators and must be labelled, but this has led to unease amongst consumers.

One German Interviewee said that the right approach would be “to portray transparency rather than providing an overkill of information” but he also recognised that the real challenge is that consumers have little trust in information provided. It was considered that there is much ‘collective wisdom’ about food amongst consumers but little evidence underpinning this. Additionally, it was noted that consumers often act inconsistently to their demands in that a demand for organic products is high, yet the sales figures do not align with this demand.

The recognition of consumer dissonance alongside the increased cost of providing increased information, for some contract caterers; acts as a barrier towards taking the step to becoming more transparent

5.3.7 Enablers of Meeting Consumer Demands and Increasing Consumer Trust

Past food scares and media portrayals of food production methods were seen as a reason behind a more critical consumer. Following on from the horsemeat scandal in 2013, actions have been taken by many contract caterers to have greater transparency throughout the supply chain. Furthermore, for some UK contract caterers it has led to a shift towards using meat products from the UK and Ireland as consumers have greater trust in products from their own country. For some consumers this has also led to lifestyle changes and therefore to purchasing more vegetarian dishes. Two of the interviewees in the UK reported that they have recently been awarded the Soil Association’s food for life catering mark at a bronze level. Although the main motivation behind gaining the accreditation was to align with demands of the business to business client, putting efforts into place to achieving this catering mark

demonstrates willingness to improve what's currently on offer. It was however, noted that there are certain aspects of food production such as food safety which consumers trust to be regulated by legislation. However, in other aspects, such as increasing the amount of fresh products used and reducing the amount of additives, interviewees felt that they fail to gain consumer trust. One interviewee from Germany called for industry partners to work together to establish a system that communicates and enables trustworthiness to consumers in the form of quality assurance.

Quality Assurance

Although as previously described, quality assurance was seen as a way to communicate certain quality standards to consumers and foster trust; it was mainly seen as an important tool to add value when bidding for contracts. Many B2B clients have corporate strategies to propose fair trade or sustainability and gaining quality assurance certifying that certain standards are being met helps to maintain a successful relationship with the client. The aforementioned Soil Association Catering Mark covers a wide range of quality criteria that have to be met including the use of fresh produce, organic and local ingredients as well as fair trade products and high animal welfare standards. Therefore, this catering mark is attractive to contract caterers in the UK. Yet, its communication has been mainly directed to B2B clients.

Furthermore, interviewees recognised that quality assurance will play an increasing role in the future, whereby criteria such as provenance communicated through schemes like the red tractor are becoming more mainstream and are of higher priority to consumers. It was expected that there will be a tipping point by which more consumers will demand and use 'quality assurance' to aid their food decisions.

"Having the catering mark demonstrates willingness and trying to improve what's currently offered... and in future I think more people will be looking at this." Male Participant, UK

Nevertheless, there was criticism in regards to the amount of work necessary to get accredited and maintain this accreditation in relation to consumer awareness of schemes. Here, it was deemed necessary that the certification bodies such as the Soil Association increase their work in communicating schemes to consumers. Given the associated costs with getting certain quality assurance certifications, one German interviewee described how their MSC certification is used as a tool to communicate higher quality standards to both B2B and B2C.

Customer engagement

Contract caterers reach out to their customers in traditional and modern ways combining approaches of print media to the use of apps and social media communication. The aim of using a wide range of approaches is to reach out to different consumer segments. It was recognised that the use of social media and technical solutions should not be underestimated as a growing consumer group is making use of smartphones to record dietary intakes through apps. Additionally, interviewees recognised that customers are increasingly making use of technology wearables such as smart watches. These customers show special interest in the food they eat and present an attractive target market. The social media presence of contract caterers acts as a way to engage with customers differently, interactively and dynamically. Here, Facebook, Instagram and Twitter were named by both caterers in Germany and the UK as platforms that were used to communicate and engage with guests. The presence through social media engagement was indicated to be well received and liked by guests.

“We post pictures of our dishes at 9 and 11am on Instagram and Facebook daily, we do not have huge amounts of followers, but it does get the word out there.” Male Participant, UK

Another less engaging way of communicating information about the caterer, suppliers or menus is through online presence via the contract caterers’ web pages and communication sent out through the employers’ intranet systems.

In some canteens in Germany, themed weeks on organic food and nutrition are held, as part of these suppliers such as farmers visit workplace canteens so that customers can ask questions. Moreover, nutritionists who are involved in developing the menu run workshops for employees on healthy eating and are present in the canteen. Reaching out to guests in this way allows information that is difficult to convey through menu labelling or print media to be communicated.

Alternative ways of providing food information including apps

A technical solution to provide food information was welcomed by most interviewees. It was seen as a way to communicate information that is difficult to portray through the use of a menu. Despite the efforts needed to establish a system that digitally manages food information, it was seen as a beneficial tool to coordinate menus and information in multiple sites. Data input is a labour intensive process but a maintained system will save time and most importantly deliver accurate data as changes in products and suppliers can be incorporated and communicated quicker. Additionally, user friendliness of solutions was perceived as most important alongside offering a tool that provides transparency in those aspects important to

consumers.

“It sounds ever so simple and quite an attractive solution, it`s just the process behind it really. It would really have to be driven from the centre out and you would need to have quite a controlled food management system. The difference between us and some of the high street caterers is that they will have a very consolidated food offer, day in and day out, take McDonalds for example, so they will probably have 15 lines continually. Because we change our menus every week and every day that will extend the amount of resource needed behind it. Everything is possible but it is only as good as the process is robust. It`s just making sure that the whole process is aligned.” Male Participant, UK

Moreover, smartphone apps and electronic information were seen as a competitive advantage and a unique selling point when bidding for contracts as it demonstrates transparency and innovation. Some contract catering managers did not currently provide information electronically but were planning to develop an app that provides enhanced information to their customers and had ideas about the functions the app might incorporate as shown in Table 5.11. Especially personalisation was seen as a key element and advantage of a smartphone application so that consumers are not overloaded with information

Table 5.11 Desirable Functions of a Smartphone Application

App Functions
Show menu in advance
Ability to customise to each catering outlet
Ability to share content with colleagues: send invitations for lunch meetings etc.
Notification of favourite dishes on menu
Ability to rate dishes
Ability to input BMI and calculate energy requirements based on type of work undertaken
Provision of provenance and sustainability information
Incorporation of a loyalty program
Feedback mechanism
Personalisation: align with different lifestyles
Provision of nutritional information

Although having the opportunity to provide menus and information through a smartphone app was seen as the way forward by many it was noted that this can only form an addition to current hard copy information available. Furthermore, as not all consumers will make use of an app, it will not replace efforts put into training members of staff as these are seen as key people engaging with customers. Some contract caterers offer an app to their customers, but one German contract catering manager reported that due to the demographic profile of his customers, the uptake of the app by guests of his canteen was lower than expected. It was generally perceived that the decision to offer smartphone apps or electronic information towers should be made based on the profile of customers making use of the canteen in order to consider whether benefits outweigh costs. Hereby, it was anticipated that there will be differences in uptake between blue and white collar workplace canteens. It was estimated that there will be greater interests in white collar workplaces due to higher educational attainment.

However, not all interviewees saw benefits in alternative ways of providing food information. One argument for this was that there is a high administrative burden associated with making further information available. Therefore, kitchen managers and chefs spend less time focussing on the provision of fresh food which was seen not to be in the interest of the guest. Additionally, it was criticised that technical solutions impact on creativity, are anonymous and that the contact with customers is valued. The accuracy of nutrition information provided through apps was questioned as it does not take into account any flexibility customers currently have when asking to swap side dishes or sauces and consequently can restrict variety.

“To be honest, there are many people in our industry who advocate the use of computer systems. I am not a fan because for me it distracts us from what we are doing best, providing fresh natural food. Providing more information anonymises us and puts us on one level with the food industry... Our chefs are passionate and I would rather have that than provide a list of ingredients for every meal served.” Male Participant, Germany

Overall, there was a debate around the use of electronic information provision. Arguments provided by those interviewees that did not see any advantages in technical solutions were challenged by those contract catering managers already making use of electronic ways of providing information. Criticisms towards modern approaches were seen as old fashioned and it was argued that service provided to customers was enhanced rather than restricted. One smartphone application used by a German contract caterer as shown in Figure 5.11 not only displays the menu and allergens present in dishes, but also allows customers to rate a dish or share information with other users. This creates information useful for both other guests and

the contract caterer that traditional approaches would not have been able to capture.

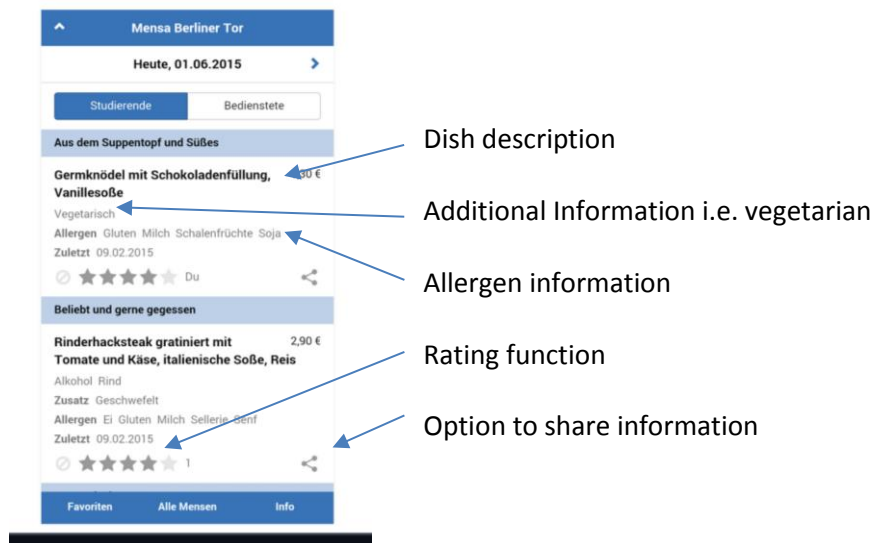


Figure 5.11 Example of Dish Information provided through a Smartphone Application. Source: iMensa 2015.

The ways information is currently provided in workplace canteens in Germany and the UK as well as barriers to provide further information and issues relating to trust in both, information provided and in the contract caterer communicating information is visually summarised in Figure 5.11.

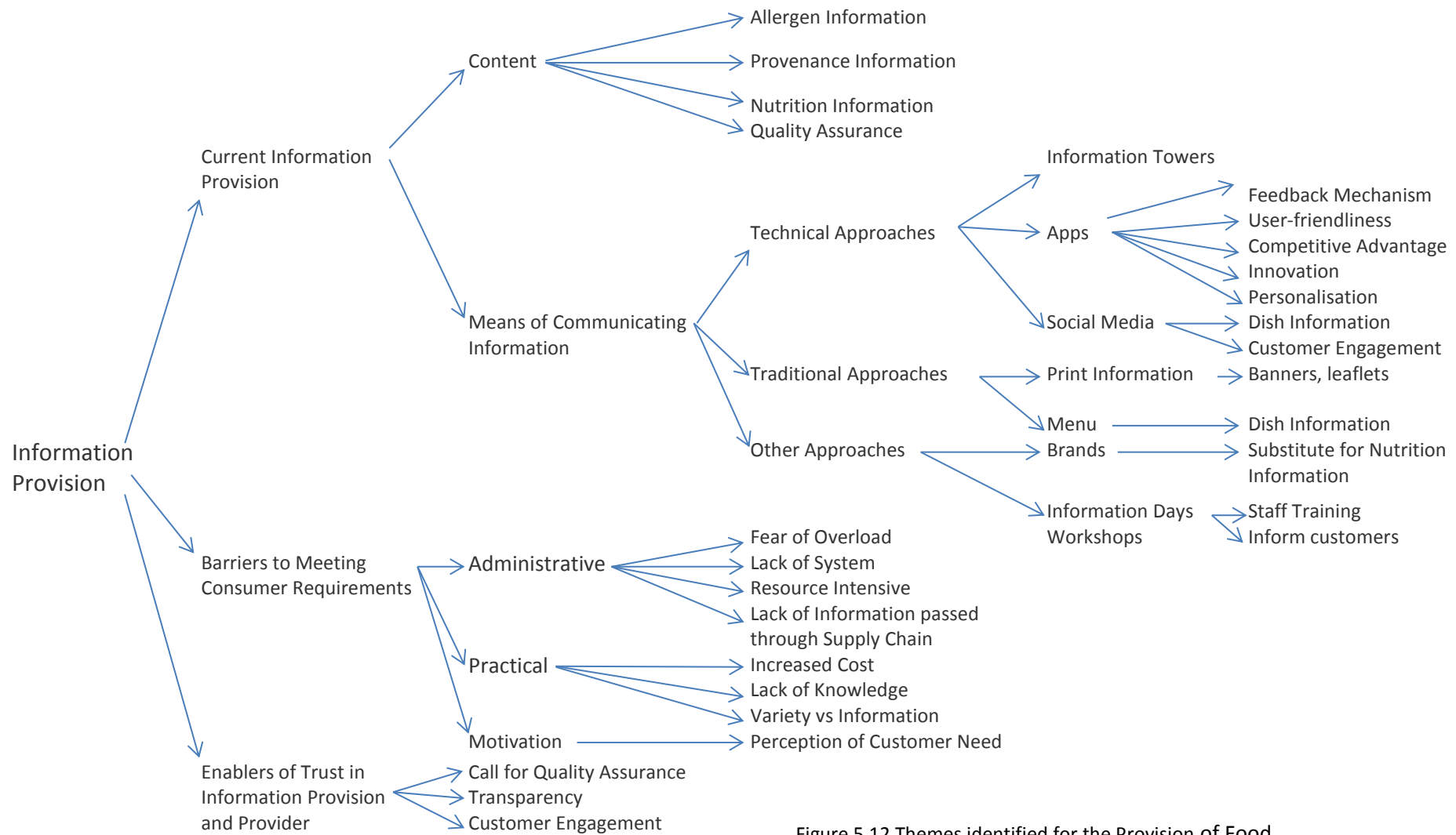


Figure 5.12 Themes identified for the Provision of Food

Summary

There is little expectation in the quality of food served in the workplace. Yet, consumers value the transparency of information and the opportunity to socialise with other work colleagues. Convenience aspects such as providing a space to take a break from work, time pressures and lack of other alternatives also influence the use of workplace canteens. Past issues in the food chain have left consumers increasingly critical towards the food that they eat. Criteria of importance that influence dish selection are Variety, Portion Size as well as Taste and Visual Appearance of the food served. Informational criteria of importance dependent on consumer profile were identified as Value for Money, Naturalness, Nutrition, Organic, Provenance Fair Trade and Environmental Impact.

From the survey questionnaire it is evident that Nutrition, Value for Money and Naturalness are key elements of information that consumers require to be able to make a conscious decision about dish selection in both Germany and the UK. Furthermore, results from the latent class analysis show that consumers align to one of three cluster groups, i.e., Health Conscious, Socially Responsible and Value Driven. It was also evident from the results that Traffic Light Labelling, Information Boxes and Quality Assurance are the most preferred formats of accessing food information. The results from the latent class analysis show that consumers align to one of four cluster groups, i.e., Tech-savvy, Heuristic Processors, Brand Orientated and Systematic Processors.

Interviews with contract catering managers have shown that there is a sound understanding of the predetermining criteria that are important to their customers which were identified as Price (Value for Money), Freshness, Visual Appearance and Variety. Furthermore, Nutrition, Provenance, Organic, Animal Welfare and Environmental Aspects were identified as criteria of importance that differ to customers. Currently, little information on aspects other than dish description, price and allergens are communicated to consumers with nutritional information and the provenance or use of organic ingredients being provided in some workplace canteens. Technical solutions such as smartphone apps as well as making use of brands are used by some contract caterers as ways of delivering information. Additionally, information days and workshops are a means of reaching out to customers and disseminating information. Although there is information which is not provided to consumers due to a lack of knowledge of the best way to portray this. Further barriers include the absence of a managerial system that organises and delivers data and the administrative burden. The difficult relationship between industry and consumers was perceived to be influenced by past food scandals and resulting bad image of the food industry and canteens in general. Embedded misconceptions amongst consumers relating to quality and freshness of ingredients used were seen as a challenge when trying to engage with customers to establish greater trust in both industry and food served.

Chapter 6

Discussion

Introduction

This Chapter draws on findings from both primary and secondary research in order to synthesise current issues that are relevant to the aim of this study. A theoretical model of the role meaningful information provision based on key consumer criteria of importance can have on the relationship between consumer and operator that fosters trust is developed and justified which is provided as a framework for conclusions and recommendations given in Chapter 7.

6.1 Model of the role information provision based on consumer criteria of importance can have on the relationship between consumer and operator that fosters trust

The workplace is a captive environment where the overall contribution of the meal served could be an important element of the total diet and represents an environment that is increasingly being used for daily meal consumption. Despite growing demand little information is available to aid healthy dish selection and this can also decrease confidence in the food system. Furthermore, it is argued that the fundamental human right of informing consumers what they are eating is not currently being addressed and is underscored. Past food scares and malpractices in the food system have affected the extent to which consumers trust the food they eat. Trust is an important component of health and wellbeing through its impact on food choice and confidence in expert advice. Moreover, in times where the consumer takes a less active role in the food system, information allowing transparency of production is important. Catering operators that are open and transparent, demonstrate commitment and trustworthiness to consumers. In order to achieve transparency and the establishment of trust in the food served, information on key consumer criteria of importance is required in a format that is well received and understood.

Criteria of importance have been identified that influence food choices made in workplace canteens with Nutrition, Value for Money and Naturalness being key elements. These different Consumers align to one of three cluster groups, Health Conscious, Socially Responsible and Value Driven. The importance consumers attach to these criteria can guide food provision in workplace canteens. Further, preferred ways of receiving food information have been evaluated, whereby consumers favour Traffic Light Labelling, Information Boxes and Quality Assurance. Consumers process food information in different ways aligning to one of the four identified clusters: Tech-savvy, Heuristic Processors, Brand Orientated and Systematic

Processors. Previous research found consumer behaviour to be divergent between German and UK consumers in that they are different cultural mindsets and values that relate to food choice (Thompson et al. 2004). Results of this study however, have found that the key informational criteria of importance for consumers in Germany and the UK are similar and that there is also a shared preference in regards to preferred ways of receiving food information. Consequently, more regional approaches to delivering food information can be taken, harmonising the way food information is delivered to consumers.

Contract catering managers have a sound understanding of their customer requirements; however, little food information is communicated. The lack of information passed through the supply chain alongside the absence of a system and knowledge of how to portray food information have been established as barriers towards meeting consumer needs. Other issues raised by canteen operators were the fear to overload menus with information and clutter as well as costs and the challenge to provide information on fresh local ingredients.

Front of house cooking and quality assurance can be used by contract catering managers to portray the use of high quality ingredients to their customers. Additionally, social media and smartphone apps as well as workshops can be used to actively engage with customers.

Offering healthy dishes of good value for money using fresh ingredients, whereby the use of additives is limited, will help to satisfy consumer demands. Further, through the establishment of a system to provide food information, canteen operators can market themselves as open and trustworthy. Technological approaches, quality assurance and brands can help canteen operators to further engage with customers. Where information on food is not passed through the supply chain, front of house cooking can substitute and act as a subliminal quality cue for the consumer, as being able to see how the food is prepared can help them make judgements about the quality of the ingredients.

A conceptual model of the role information provision based on key consumer criteria of importance can have on the relationship between consumer and operator that fosters trust (Figure 3.9 Chapter 3) was developed to provide the framework for the research methodology. Subsequently, this model has been expanded and refined, incorporating data gathered during the three empirical studies, its interpretation and synthesis of points raised. The theoretical model is presented at Figure 5.1. The following sections fully introduce the model and discuss its key components.

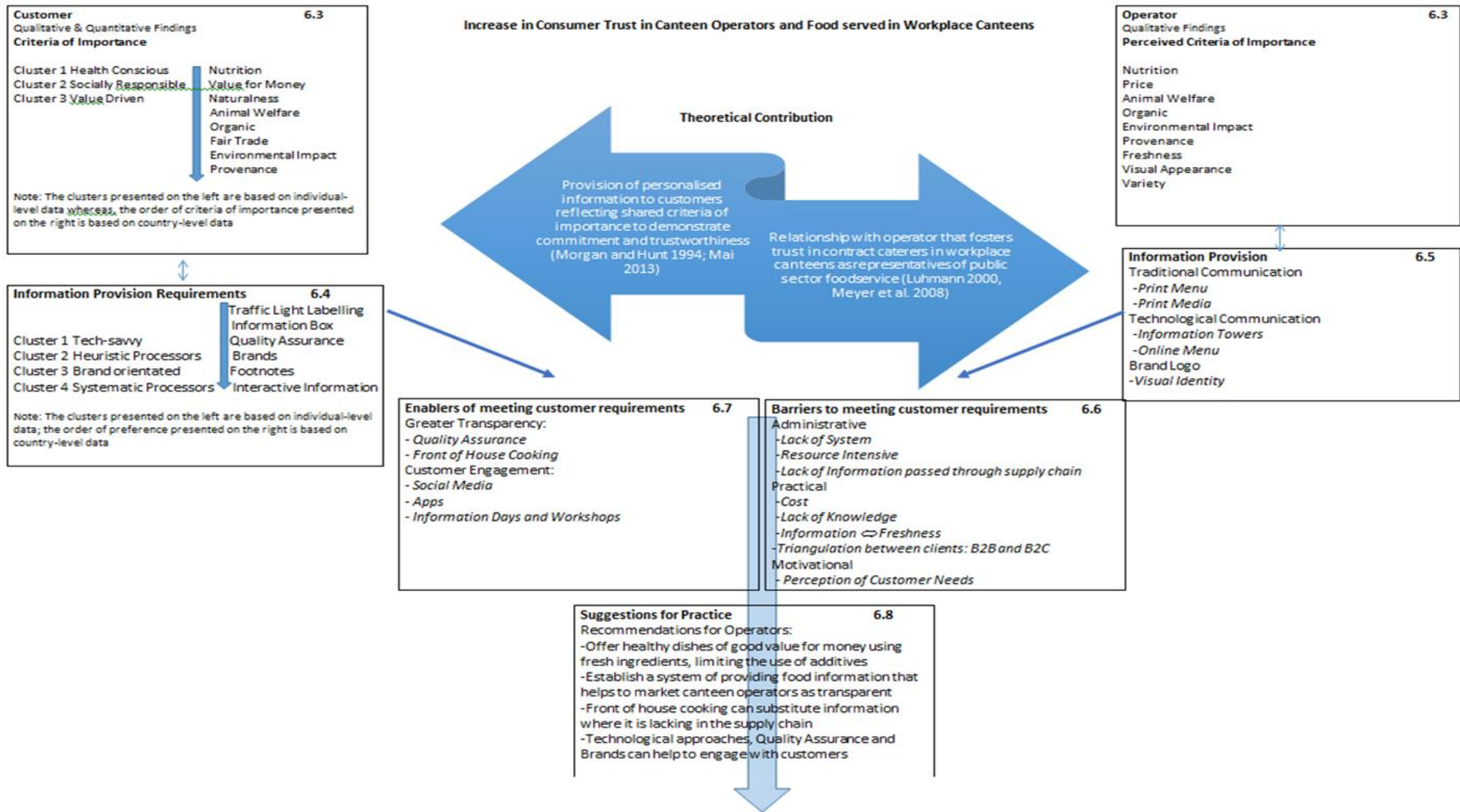


Figure 6.1 Model of the Role Information Provision based on Consumer Criteria of Importance can have on the Relationship between Consumer and Operators that fosters Trust

6.2 Preceding Factors to making use of Workplace Canteens

Food choice is a complex phenomenon that is influenced by the characteristics of the food chosen, characteristics of the consumer making the choice and the context in which the choice is made (Machín et al. 2014). The results of this study show that food choices made in the workplace canteen are not only influenced by underlying criteria of importance and characteristics of the food itself but are also context dependent. Based on previous experience, consumers expect inferior quality of food served in this setting but accept this is due to time constraints and the convenience of eating onsite. As theory suggests, habitual trust and confidence are strongly associated with routine, allowing potential dissatisfaction with food in favour of convenience (Luhmann 2000; Bildtgard 2008). Nonetheless, employees value the canteen because it provides a basis for interaction with other colleagues and the opportunity to take a break. The influence of convenience over other factors directing food choice has previously been recognised and plays an important role in the selection of food at work (Kamphuis et al. 2015).

The impact of media portrayal has additionally led to a re-evaluation of whether food served in workplace canteens is safe to eat. Combined with the perception that food served at work is of inferior quality this has an effect on food choices made by employees. Food scandals can also have an effect on food choice; the horsemeat incident and outbreaks of bacterial contamination of food are on consumers' minds for the duration of media coverage (Premanandh 2013). Although this influence is short-lived, there is a temporary cessation of certain food groups such as processed meats. Food choice therefore, tends to be based around the avoidance of certain products and influenced by habit, especially choosing dishes that have been tasted before and are perceived as safe (Yamoah and Yawson 2014). However, this decision currently is not based on an informed evaluation of foods on offer. Consequently, foods high in salt and saturated fats such as chips and fried foods are chosen based on the assumption that they are safe to eat and additionally will taste good. Previous studies have linked the selection of dishes high in salt, saturated fat and sugar to a perceived work stress of employees combined with a greater offer of dishes high in salt, saturated fat and sugar by canteen operators due to increased profit margins (Stewart-Knox 2014; Mackison et al. 2016). Results of this research add to these findings in that uncertainty following problems in the food chain also influences the choice of unhealthy dishes. Although people may be looking for healthy dishes, having adopted a strategy to avoid foods that are perceived to be of an inferior quality they select those known. This adds to the conflict of making a decision between healthy and indulgent food (Mai and Hoffmann 2015). Furthermore, from this research it is

evident that even though employees have a high interest in eating healthy, due to bad experiences, perceptions of low quality and in some cases distrust in the quality of food served dishes that are perceived as safe i.e. chips are chosen over healthy dishes.

6.3 Food Criteria of Importance

Consumers have expectations in food that can be associated with concerns about health or ethical stances with respect to the fair treatment of others and the environment (Busch 2016). Food choices are made according to these preferences and expectations. Criteria that are of importance to consumers when making food choices in workplace canteens have been identified in this study. The descriptors used for these criteria were influenced by Lusk and Briggemann's (2009) food values. Although the criteria of importance of this study match some of the food values developed by Lusk and Briggemann (2009), differences were identified in the context of workplace canteens. For their concept of food values, Lusk and Briggemann (2009) identified eleven values (Naturalness, Taste, Price, Safety, Convenience, Nutrition, Tradition, Origin, Fairness, Appearance and Environmental Impact) which act as meta-preferences. However, from this research it is demonstrated that there are differences when applying the Lusk and Briggemann's (2009) food values to the setting of workplace canteens, especially in terms of Safety and Tradition. When eating at work, employees do not pay much attention to aspects of food safety which aligns with Verbeke and Ward (2006) who confirm that amongst consumers there is an underlying assumption that aspects of food safety are regulated and checked by food producers and authority. Lusk and Briggemann (2009) strongly differentiate between Origin and Tradition. However, for German consumers these aspects are merged because in Germany there is no traditional dish. Therefore, when eating at work, region specific dishes which are associated with tradition and incorporate local ingredients, are important (Heinzelmann 2008). Conversely, to Lusk and Briggemann's (2009) food values which established Convenience, Taste and Appearance as meta preferences where the importance consumers attach to these values differ between consumer segments, results of this study have shown that these are criteria that are always important when making food choices in workplace canteens. Moreover, Lusk and Briggemann's (2009) food values do not include Organic as a meta preference. Results from this study suggest, that Organic is an important criteria when making food choice at work. Given the increase in sales of organic food products, other research studies have also suggested that the addition of the value Organic to Lusk and Briggemann's (2009) food values would be appropriate in today's market (Lyerly and Reeve 2015).

Canteen operators generally demonstrate a sound understanding of criteria that are of importance to consumers as they act as gatekeepers in the food system through ownership and control of what dishes and type of food is on offer (Esbjerg et al. 2016). Notwithstanding, there are differences in that consumers attach a high importance to Value for Money which contrasts with operators' perceptions of price sensitive consumers. Pridgeon and Whitehead (2013) suggest that when making food choices at work, the perceived Value for Money plays an important role as employees are likely to eat in the canteen on a regular basis. However, as this research highlights, consumers do not solely expect food at a low cost but rather at a cost that reflects good value for money. Although consumers have indicated a high requirement for Value for Money, cost does act as a quality indicator and a dish served at low cost can alter the quality perception of the dish, diminishing prior quality judgements made (Priilaid and Hall 2016). Contrary, operators' perception that there is a consumer-led demand for cheap food, whereby price is favoured over other quality attributes has been highlighted in previous research (Abbots and Coles 2013). The relationship between consumers and the food industry has previously been described as antagonistic, whereby the food industry is accused of being profit driven not taking into account consumer needs and consumers being depicted as irrational (Holm 2003; Michels 2012). Nevertheless, this research demonstrates that the foodservice industry is slightly better received in that canteen operators have got an accurate understanding of their customers' needs and expectations.

Healthy diets have become well established in people's everyday lives, therefore, it is not surprising, that Nutrition is one of the most important criteria in both Germany and the UK (Mintel 2016b). The demand for healthy and natural food have been identified as key areas of consumer importance when eating out commercially and this study shows that these aspects also form key information requirements for employees when eating at work (Mintel 2016). Trends such as 'clean eating' or 'raw food' have fuelled this interest for natural ingredients and minimally processed foods (Bugge 2015; Mintel 2016b). Albeit, unlike eating out commercially which can be viewed as a treat, consumers eat at their place of work regularly and therefore, health conscious consumers put an emphasis on eating healthy in this setting. Further, consumers have a demand for dishes reflecting good Value for Money, which includes not wanting to be overcharged for dishes that are sold as healthy dishes.

Rather than solely segmenting consumers according to demographics, respondents have been segmented according to the importance they attach to different criteria as is the case in lifestyle segmentation (Nie and Zepeda 2011). Consumers in this research have aligned to clusters such as Health Conscious, Socially Responsible and Value Driven. The importance to

segment consumers according to the importance given to different food criteria has been recognized as a way to understand consumer perception and understanding of concepts such as healthy eating and sustainability (Verain et al. 2016). The differences between clusters show that consumers have different agendas that relate to food criteria of importance, which are often influenced by lifestyle choices and values. These range from having an economically, value driven outlook to a focus on health to putting a high value on moral aspects of food consumption including ecological sustainability as well as the fair treatment of animals and others. Latent class analysis is a complex approach to segmenting consumers by identifying their class membership which is suitable for the application in a food context where consumer beliefs and importance attached to different criteria is susceptible to change over time.

Health Conscious

Healthy diets have become well entrenched in consumers' lives and this is reflected by the results of this study (Mintel 2016a). Findings of this research align with previous research in the US which has identified that consumer interests for healthy food extend to nutritious food available in the workplace (Geissler 2010). Therefore, there is a high demand for nutrition information to be available in workplace canteens (Thomas et al. 2016). In the UK it is estimated that nearly half of the population (48%) are trying to eat healthy all or most of the time (Mintel 2016a). Similarly, in Germany, 50% of the population is said to have a strong focus on healthy eating (Loose 2012). However, it is surprising that other than Value for Money, Nutrition and Naturalness, no other criteria relating to sustainable food production are of importance. Other studies have highlighted a shift in dietary patterns towards products that are healthy but simultaneously are sustainable and produced ethically (Aschemann-Witzel 2015). Given the large number of respondents in this segment, employees making use of workplace canteens provide a target market for contract caterers offering healthy food (Geissler 2010). Currently however, canteen operators do not address this consumer demand for healthy food adequately. Furthermore, there is a lack of policy that regulates the provision of healthy food in workplace canteens. In the UK, the provision of healthy meals is regulated for workplace canteens in hospitals only. According to the Food Standards for Hospitals in England 2015 it is a contractual obligation that meals served not only to patients but also to visitors and staff have to comply with the Department of Health's recommendations on salt, saturated fats and sugar (Keogh and Osborne 2014). However, this is only applicable to workplace canteens in hospitals and does not apply to other workplace canteens in the UK. For Germany, there are also no regulations that require canteen operators to offer healthy meals. Considering, that some contract caterers adhere to regulations for their outlets in hospital

staff canteens, an opportunity is missed to apply the same provision of healthy food to other workplaces they supply.

Socially Responsible

Many consumers put higher emphasis on ethically produced food to express societal norms, morals as well as community concerns and ecological standards. Results of this study show that there is a segment of consumers that value Organic, Environmental Impact, Fair Trade, Provenance and Animal Welfare. Sales in food products that can be classed as socially responsible have risen steadily for the past years despite the economic downturn and in the UK account for 8.5% of all food purchases (Defra 2015). Consuming food that is produced ethically presents an opportunity to support causes that are perceived as important (Bratanova et al. 2015). Nevertheless, some canteen operators have a widespread perception that sustainable diets are associated with higher costs and therefore avoid making alterations to current strategies (Food Ethics Council et al. 2016). Many consumers have developed a collective consciousness that challenges the conventional production of food, which results of this study show also translate into food choices made at work (Bildtgaard 2008). Especially amongst Generation Z/Millennials, there is a growing awareness of the environmental impacts of our diet and catering for these demands represents an important market opportunity (Food Ethics Council et al. 2016). Not only that, it has been suggested that in the future, workplace canteens will inevitably be affected by the challenges that the environmental impact of our diets will have on the global food system (Food Ethics Council et al. 2016). Additionally, these criteria serve as quality indicators for consumers and currently food offered in many workplace canteens does not adequately address the demands of consumers in this segment.

Surprisingly, Socially Responsible consumers do not consider Nutrition and Naturalness as important even though many consumers who purchase Organic food products in the retail sector associate these as being healthier than conventionally produced food (Aschemann-Witzel 2015). Nevertheless, placing a high importance on sustainable food production has been linked to improved dietary patterns in young adults (Pelletier et al. 2013). Interestingly, the Socially Responsible are also the cluster with other dietary requirements such as being vegan or vegetarian underpinning the necessity to offer dishes that incorporate sustainably sourced ingredients, generally with any offering.

Locally produced food has received increased attention for a range of economic, social and environmental reasons (Goggins and Rau 2016) and has been recognised by some contract caterers as being one of the most important aspects to consumers other than health and

wellbeing (Food Ethics Council et al. 2016). However, in a contract catering setting there are few canteen operators who locally source ingredients due to constraints imposed by procurement contracts. Nevertheless, changes to procurement practices by catering operators have the potential to increase the amount of sustainably sourced products, typically including a rise in the amount of locally sourced ingredients (Marsden 2014). Results of this study show that there is a higher awareness and demand for information on locally sourced ingredients of food served at work. Therefore, canteen operators should revisit existing procurement contracts to investigate the possibility of sourcing local ingredients. Consumers feel closely related to food products that come from their local area and perceive these to be of a higher quality, therefore, encompassing local or green ingredients in dishes is an opportunity for canteen operators to improve disembedded trust (Nuttavuthisit and Thøgersen 2015).

Value Driven

The importance of Value for Money communicated through the cost of a dish is evident from the results of the cross-cultural comparison as well as the results of the latent class analysis. This aligns with findings of previous research suggesting that the perceived Value for Money plays an important role due to employees likely to eat in the canteen at their place of work regularly (Pridgeon and Whitehead 2013). Consumers have seen food prices rising in past years, ranging from 19% between 2007 and 2014 in Germany to 37% during the same time frame in the UK. Therefore, employees will only be making use of workplace canteens if food is offered at a reasonable price. Consumers have made it clear, though, in this research, that they do not solely expect food at a low cost but rather at a cost that reflects good value for money and as such they are prepared to spend more if the quality of the dishes is good.

6.4 Preferred Food Information Formats

In a retail setting, consumers are provided with information which is often perceived as conflicting or limited, forcing an evaluation of what information and which actors of the food chain to trust. Consumer interests often go beyond the search for nutritional information with curiosity for information on other quality attributes and origin of food (Lusk and Briggemann 2009). Greater interest in food information as highlighted in this study demonstrates that there is an information asymmetry between consumer and canteen operators suggesting that there is a lack of communication between consumer and food producer (Michels 2012). Currently, as this research shows, very little dish detail is communicated to consumers in workplace canteens, albeit canteen operators acknowledge increased consumer demand.

Arguably, the impact of food information on food choice of healthier products has been limited (Westenhoefer 2013) with barriers to making use of this including a lack of

understanding, attention and motivation (Nyilasy et al. 2016). Nevertheless, it is a fundamental right for consumers to know what they are eating and being able to make an informed choice. Expectations and demands differ between consumer segments as results of this study show. It has been suggested that whilst some consumers struggle to understand information provided about their food, other consumers who are actively seeking data on health aspects or aspects related to ethical or sustainable production will not be satisfied by the basic level provided (Nocella et al. 2014). Nevertheless, greater information provision is welcomed and even if this is not being utilised it provides transparency and reassurance. Notwithstanding, in order for it to be effectively used, it has to be presented in a format that is preferred by consumers in a canteen setting (Hoefkens et al. 2012a).

Results of this study confirm findings from previous studies that the traffic light system is well received amongst employees as it enables informed decisions in regard to the healthiness of a dish. Employees value the provision of this quick at-a-glance information as lunch times are restricted and the canteen is seen as a fast-paced environment (Fitzgerald et al. 2016). Further research into the preference of labelling approaches has shown that a combination of basic Guideline Daily Amount numerical information as seen in Information boxes should be combined with directive approaches such as Traffic Light Labelling to serve the different information needs of consumers (Hoefkens et al. 2012a). Furthermore, Quality Assurance has been identified to be popular amongst consumers as it reflects high quality in areas that are of importance, that is health, welfare of others and environmental concern and confirmed in this study (Ferns 2012).

Within information provision, it is possible to align consumers to clusters such as Tech-savvy, Heuristic Processors, Brand-Orientated and Systematic Processors. Segmenting consumers according to their preference for different formats of providing this data can offer valuable insights for canteen operators on how food information is best presented so that commitment and trustworthiness are communicated (Tonkin et al. 2015).

Tech-savvy

From this research it can be confirmed that consumers have a high interest in receiving information in an electronic format suggesting that people have a 'mobile app-etite' with increasing numbers of consumers engaging in mobile technology to plan, purchase and socially share their meals (Doub et al. 2015). It is therefore not surprising that, nutrition and fitness apps were the fastest growing and most downloaded category of apps in 2014 (Gratzke 2015). Considering that a large number of the participants of this study have also been identified as

being health conscious, these findings can be interpreted in the light of the popularity of mhealth interventions and the quantified self-movement (Hall 2014). There is a high interest amongst consumers to track their food intake and self-monitoring through tools like wearable sensors or mobile applications which enable consumers to monitor and manage different aspects of their health based on personal data collected (Gratzke 2015). However, when eating at work it is currently not possible for consumers to monitor their food intake in a way they are used to when eating at home or eating out commercially. One of the main drivers behind the popularity for accessing food information and monitoring food intake through smartphone apps is the opportunity to have access to information that is both inexpensive and personalised (Bert et al. 2014). Furthermore, the preference for receiving nutrition information on a mobile device has been recognised (Vandelanotte et al. 2016). Additionally, changing the provision of information to an interactive format will position canteen operators as innovative and engaging, thereby demonstrate commitment to improving standards of both food served and service offered to guests.

Heuristic Processors

Results of this study show that consumers value quick at a glance information suggesting that understanding and attention is highest for formats that are interpretative such as traffic light labelling (Nyilasy et al. 2016). Heuristic processing is applied by consumers with a sound knowledge about food and nutrition that use at a glance information in order to compare different food items, whereby their subject knowledge does not require them to search for further information (Fischer and Frewer 2009). This is confirmed by a high number of respondents being classified as Health Conscious. It has further been suggested that especially in a canteen setting, where the pace of service does not allow complex cognitive processing of in-depth information, traffic light labelling is of value to all consumers (Pettigrew et al. 2012).

Brand Orientated

Brands and Quality Assurance are well received labelling approaches that can be used in a canteen setting as they provide direction towards certain quality standards but are not negatively perceived as imposing or forcing meal choice in a particular direction (Hoefkens et al. 2012a). Both have at least a partial substitute relationship and are communicated through the use of a logo (Deselnicu 2013). Compared to other labelling approaches, logos that represent a brand or quality assurance, do not overload the menu with too much information. Especially in a canteen setting, where there is an absence of other information, brands can be noticed and information provided which is processed quicker (Cavanagh et al. 2014). Contract caterers can develop a private reputation associated with a brand, dishes served and

ingredients used and can benefit from quality assurance indicating that certain standards are met (Deselnicu 2013). Brands can help to establish trust in contract caterers through brand benevolence, which communicates the caterer's intention towards their consumers. Literature suggests that this can be used in absence of detailed information to make assumptions about social, environmental and health advantages that are associated with certain dishes (Lassoued and Hobbs 2015). In the light of consumers' perception of inferior quality of food served at work, branding can be an important non-sensory cue to influence the quality perception of food (Boylund and Christiansen 2015). Furthermore, the use of Quality Assurance labels provides health and environmentally conscious consumers with more information about the production of the food, and labels such as 'organic' or 'fair trade' and have been shown to have a halo effect. Thereby, the overall evaluation of products including judgements made about healthiness and taste are enhanced (Sörqvist et al. 2016).

Systematic Processors

Not all consumers, however, value heuristic information that can be provided through traffic light labelling, brands or quality assurance. This can be partly caused by a greater need for information (Fischer and Frewer 2009). Dietary requirements present a desire for more in-depth food information and systematic processing is used by consumers when there is little confidence about the judgement derived from information given (Jooyoung and Hye-Jin 2009). Consulting detailed information enables consumers to maximise the confidence in their judgement, hence canteen operators need to develop an approach of providing detail that does not overload the menu but still provides sufficient content for those consumers who require more in-depths information.

6.5 Information currently provided in Workplace Canteens

Canteen operators are aware of an increasing demand for food information amongst their customers. Surprisingly, there is very little information communicated to consumers, with the menu often being the only source. Some canteen operators however, use other traditional print materials and technological approaches to communicate about dishes served. Results of this study show that many caterers shy away from using technological approaches and therefore, portray detail about credence attributes of dishes on banners and posters. However, the literature would suggest that posters are not a good way for engaging with customers and that communication that directly addresses customers, such as emails distributed through the intranet are likely to reach a wider audience (Mackison et al. 2016). Nevertheless, using print media to communicate certain aspects of dishes and to introduce the

caterer can form an important part of a multicomponent approach that engages with customers (Thomas et al. 2016). It is suggested that print communication, when placed at the right point can positively influence consumer decision in workplace canteens. Even though workplace canteens operate at a quick service, while waiting in line to be served, customers have time to read and process information provided to them on banners and posters (Thomas et al. 2016). Consequently, canteen operators can use print media to influence dish decisions and form a relationship with their customer.

Notwithstanding, using technological approaches enables canteen operators to deliver information in a different way, avoiding clutter caused by portraying extra information. Some canteen operators are already using technological approaches in the form of electronic menus and information towers or smartphone apps. As results from this study show, there is consumer demand to have access to food information through a technical solution. Consumer interests in additional information, put pressure on canteen operators to increase the amount currently provided. The need for canteen operators to use technological approaches for an open and transparent flow of data that actively encourages a dialogue between canteen operator and consumer has been identified (Chathoth et al. 2014). Thereby, canteen operators can enhance food information whilst also offering personalisation reaching out to different consumer segments such as the Health Conscious or Socially Responsible. However, results from this research show that not all consumers are interested in receiving this detail through a technical solution. Hence, a combination of print and technical provision can offer information for those consumers who have a greater interest without overloading others. QR codes printed on menus can enable those consumers who are interested to easily access food information through the use of a smartphone whilst not overwhelming those customers who show little interest (Chen et al. 2013; Šenk et al. 2013; Tarjan et al. 2014). Moreover, offering a technical solution does not only add value for the customer as they can use this to enhance their personal wellbeing, it also allows canteen operators to demonstrate that they can form an important part of corporate health strategies. Furthermore, many employees eat out in their workplace canteen regularly, therefore, technological approaches can form important sales opportunities, whereby, push marketing techniques can influence impulsive dish decisions (Mintel 2015b).

Lessons learned from marketing approaches and branding used in private food marketing can be applied to the provision of food information in the setting of the workplace both in the UK and Germany. Marketing approaches such as storytelling require action from operators but are also influenced by good practice and business ethics of actors in the private food marketing

sector. Literature suggests that this type of approach has reduced consumer scepticism towards the use of commercial marketing making it more authentic (Aschemann-Witzel et al. 2012).

Branding can be a useful tool for operators to communicate their commitment to credence quality signals such as animal welfare and organic sources. Hereby, brands act as a heuristic signal when making food decisions and are recognised for their effectiveness in highlighting credence quality attributes. In the absence of other information, which is often the case in workplace canteens, brand benevolence, communicating the contract caterer's intention towards their customers is used to make assumptions about benefits such as social, environmental and health advantages that are associated with food served in the canteen (Lassoued and Hobbs 2015). Therefore, brands can help canteen operators demonstrate commitment to their customers. Results of this study show that brands are used in workplace canteens to appeal to health conscious consumers and demonstrate that certain meals are cooked using fresh and healthy ingredients. Intuitively, perceived quality acts as a salient decisional factor influences consumers' behavioural intention through attitude to a positive brand image. It has been given relatively little previous emphasis by canteen operators that brands can be used to establish a loyal connection between the customers and themselves (Assiouras et al. 2015). Consequently, operators should recognise brands as an important tool that can provide signals about multiple quality attributes through their management of individual elements which can foster consumer trust (Lassoued and Hobbs 2015).

Communicating the commitment to meet consumer demands through brand image is a way of reassuring customers that foodservice operators act in their best interest. As this study has shown, there are challenges for some dishes to show comprehensive detailed information, and it is here, where branding can be used to communicate certain quality aspects through brand associations and the brand logo. Hence, branding can be used to demonstrate to consumers that high quality ingredients are being used, reducing the administrative effort needed to provide detailed information on a rotating food menu. Notwithstanding, providing food information in such a manner must be accurate and in order to regain customer trust refrain from overemphasising and misleading consumers through 'nutri'-or 'greenwashing' (Chen and Chang 2013). Consumers, as this research has highlighted are already critical of operators providing information for marketing purposes.

6.6 Barriers to meeting customer requirements

Barriers to meeting customer requirements are multifold including administrative, practical and motivational barriers. Administrative and practical reasons such as corporate regulations, lack of knowledge of how to portray information and unavailability of information were identified as barriers to provide food information that meets consumer requirements. Additionally, motivational barriers that are linked to the understanding of and willingness to meet consumer demands also influence whether consumer information needs are met.

Nonetheless, greater information provision guides consumers towards healthier choices, whereby the right to choose is not withheld. Enriching menus in workplace canteens achieves greater acceptability compared to restricting choice and removing unhealthy dishes completely (Jørgensen et al. 2010). Policies incorporating information provision not only enable consumers to make healthier choices but also allow caterers to demonstrate transparency and foster consumer trust. Consequently, from a contract caterer aspect adapting strategies that foster a good relationship with their customers can lead to a competitive advantage through its impact on promoting healthier behaviours in the workplace which offers a more economical option compared to interventions that target individuals (Trogon et al. 2009).

The absence of a system that guides information provision has been identified as a barrier by canteen operators towards adopting menu labelling. Arguably, from a business perspective in terms of cost, developing a system centrally and deploying it in different outlets is more economical than each canteen operator establishing a system in their canteen individually. Additionally, consistent implementation of menu labelling across all outlets of a contract caterer has the potential to gain competitive advantage when bidding for contracts over competitors that do not have a system in place (Chu et al. 2014).

Nevertheless, canteen operators are influenced by a plethora of policies at different levels. Therefore, introducing voluntary menu labelling adds to the administrative effort associated with health and safety, hygiene, procurement, waste management and other policies such as the provision of allergen information under EU regulation (Mikkola 2009). On the other hand, it is a fundamental right and expectation from consumers to be able to make an informed choice when eating at work.

Providing more food information, especially nutrition information, has been identified from a public health perspective as a cost-effective approach to inform consumers about the nutritional content or the origin of their food (Chu et al. 2014). However, as results of this

study show, increasing the information provided in the setting of workplace canteens has been opposed by many canteen operators due to practical challenges. The increased cost associated with providing enhanced detail, lack of knowledge of how to provide information most effectively as well as a lack of data passed through the supply chain have been identified in this study as barriers towards meeting consumer requirements. The barriers towards extended information provision are similar to those found in other studies that have investigated reasons why menu labelling approaches are not as widely adopted in workplace canteens and in restaurants as they are in the retail setting. Mah et al. (2013) found that foodservice operators refrained from providing food information on menus due to a perception that this imposed on creativity and was associated with extra costs. The nature of workplace canteens is revenue driven and this can impact on operators' willingness to provide enhanced detail. Literature suggests that there is a perception amongst operators that the investment associated with establishing and maintaining a system that provides information outweighs the benefits (Vanderlee et al. 2016). Whilst potential loss of item sales, revenue and gross profit have previously been established as barriers towards implementing menu labelling (Chu et al. 2014), research into the impact of menu labelling on sales and revenue in private sector foodservice outlets has shown that this concern is unfounded (Bollinger et al. 2011). Consequently, as this research demonstrates, consumers show a high interest to both access to healthy dishes and receiving nutritional information and therefore, barriers identified in the literature appear to be unfounded.

Notwithstanding, for dishes using fresh ingredients it is argued that little information is passed through the supply chain and therefore, canteen operators identified a struggle to make information available for dishes that use fresh ingredients. Respectively, in order to provide dish data this means that convenience products would be favoured over fresh ingredients. However, it can be challenged that the use of fresh ingredients does not only improve the nutritional profile but also provides canteen operators with an important opportunity to market the use of such items (Chu et al. 2014).

Contract caterers propose an offer that aligns with the corporate strategy of their B2B client when bidding for contracts. Examples are the proposal to use fair trade or sustainable ingredients in order to demonstrate that they can add to their clients' social image. However, these demands do not always reflect the needs of the customers who make use of the canteen on a daily basis. Although canteen operators market how their offer is able to align with clients' corporate strategies, there is a gap in marketing the use of the canteen as part of employer branding and attracting or retaining staff. Offering a canteen that serves high quality

food that reflects the demands of consumers can add to the attractiveness of employers (Wilden et al. 2010). An investigation into what criteria make an employer attractive for employees has shown that added benefits rank directly after the salary but are more important than other factors such as the social image of the employer (Bellou et al. 2015). For employers offering benefits to their employees is a way of enhancing the working relationship and workplace canteens can be part of the benefits offered. Therefore, canteen operators could recognise that there is a gap in their current marketing missing the opportunity to actively contribute to employer branding. Canteen operators tend to be more willing to align their offer with customer demands and provide information about the food offered if they are supported by their client and perceive that this will enhance their B2B relationship (Fitzgerald et al. 2016). Consequently, providing food that meets customer demands and providing suitable information that enables informed choice is an advantage that canteen operators can use to demonstrate how they form an important part of their clients' brand as an employer. Giving food information on criteria that are of importance to consumers can be seen as an allocation of responsibility to canteen operators, requiring them to acknowledge the possible impact food offered can have on health and the environment (Carter 2015). For consumers, this not only demonstrates transparency but also helps to re-establish trust in food served in workplace canteens.

As part of this, canteen operators should implement strategies to provide food information that goes beyond the detail required to adhere to mandatory regulation (Vanderlee et al. 2016). Managers' perception of consumer needs and whether these include a demand for further food information was identified as an important factor in being committed to make improvements. This is similar to results found by Fitzgerald et al. (2016) who found that workplace canteen operators' desire to improve the company image and support employees who are trying to improve their health was an important motivator to implement menu labelling. Nevertheless, comparable to this research, it was also concluded that there is a certain resistance to change amongst some stakeholders (Fitzgerald et al. 2016). Canteen operators need to acknowledge that although implementing menu labelling strategies is associated with extra cost it also creates an opportunity to demonstrate transparency to their customers. Unfortunately, it has been shown that, offering monetary incentives for canteen operators to adopt menu labelling was only successful with those stakeholders who were already motivated to implement change (Fitzgerald et al. 2016).

Notwithstanding, menu labelling not only portrays food information but also acts as the key communication tool between operator and consumer and is important for the establishment

of a relationship to foster trust. Therefore, as well as the literal message which is of relevance, it can also be used as a platform to make judgements about contract caterers in the absence of face to face contact (Giddens 1994; Tonkin et al. 2015). However, menu labelling will not guarantee an increase in sales of healthier products per se but needs to go alongside a focus on improving the taste of meals, reformulation and making healthy choices available.

6.7 Enablers of meeting customer requirements

Front of House Cooking

Results of this study have highlighted consumers demand for healthy food that is prepared using fresh ingredients. However, in workplace canteens, there are obstacles to the use of fresh ingredients and home-style cooking related to the scale of production. Issues in workplace canteens pertaining to taste and perceived low quality as identified in this study can be addressed through the use of front of house cooking. Whilst it is unlikely that all dishes can be prepared using front of house cooking in this setting, some dishes can be used to highlight and advertise the use of fresh and healthy ingredients (Mai and Hoffmann 2012). Some canteen operators in Germany and the UK have recognised the potential of using ‘demonstration’ cooking to communicate the use of fresh and high quality ingredients. As an alternative to usual cooking methods in canteens, front of house cooking is popular with customers as it can match the quality obtained by preparation in a smaller scale kitchen (Adler-Nissen et al. 2013).

Additionally, ‘demonstration’ cooking can address consumer demands for more transparency, as the cooking process is visible to the consumer and there is the opportunity to interact with the chef (Karch 2014). Consumers are acquainted with the use of front of house cooking through experiences from both private foodservice and street food vendors, therefore, this type of cooking can address perceptions of inferior quality and associations consumers have with workplace canteens (Maack et al. 2013). Following past food scares such as horsemeat gate where consumers were not aware of what they were eating, front of house cooking can be a way for canteen operators to demonstrate that fresh and high quality ingredients are being used. For consumers, being able to see dishes freshly prepared in front of them acts as a quality cue and therefore, replaces the need for additional food information.

Quality Assurance

In the UK, the Soil Association’s food for life catering mark aims to raise standards of nutritional and overall food quality, provenance and environmental sustainability for food

served in public and private sector foodservice (Melchett 2014). Although as results of this study show, some canteen operators in the UK have achieved the food for life catering mark, they do not actively communicate this to their customers. The main purpose for complying with the guidelines of this quality assurance is to gain a competitive advantage over other contract caterers and currently there is little communication of the quality assurance to customers. This is a missed opportunity to promote high standards that are achieved and rewarded through the catering mark, especially as the criteria necessary to gain the certification are closely linked to the consumer criteria of importance identified in this research. Nevertheless, there is little awareness of this catering mark amongst the general public and canteen operators are missing the opportunity to promote the inherent quality assurance. Considering the effort taken to obtain quality assurance accreditations such as the catering mark, canteen operators are not using the gained standard to its full potential. Unfortunately, in Germany, there is no such similar quality assurance for workplace canteens. Not only does quality assurance enable canteen operators to demonstrate high standards through the use of a logo in a neat way avoiding menu clutter, literature suggests that it also improves food quality overall by increasing traceability as well as reducing food miles and using fresher ingredients (Gray et al. 2015). Using local and seasonal ingredients has additionally been shown to reduce costs. Notwithstanding, as this research has shown, canteen operators are restricted by contract caterers in that they are required to use certain suppliers which limits the use of local ingredients. It is suggested, that using local ingredients as a prerequisite for the soil association catering mark has a high impact on the community and local economy (NHS 2014). Subsequently, obtaining quality assurance enables canteen operators to lead by example; demonstrating best practice through an independent endorsement that employees can chose dishes confident in the knowledge that ingredients have been sourced in an ethical and responsible way.

Customer Engagement

Some consumers are rather ambivalent about information and therefore it is important to have a rounded approach combining aspects such as menu labelling with efforts to design an environment that fosters better dietary choices (Quintiliani et al. 2010). Literature suggests that technological advances combined with consumer access to information have contributed to a more critical consumer who is better informed and more expectant of services (Chathoth et al. 2014). Although food choices are generally regarded as low involvement decisions that are made habitually, past issues in the food chain have made some consumers more critical towards the food they eat (Thogersen et al. 2012a). Consequently, when eating in workplace canteens where there is a demand for high quality food that is healthy and meets certain

standards relating to sustainable and ethical food production, the involvement in food choice is higher. Hence, the need for canteen operators to invest in relationship building that offers high levels of familiarity and trustworthiness has been recognised (Fernandes and Esteves 2016). A customisation of service makes consumers feel valued and forms an important part of a canteen operators' engagement with their customers. Literature suggests that engaging with customers helps to strengthen the relationship between canteen operator and consumer which in return leads to a more favourable attitude towards dishes served and caterer brand (Fernandes and Esteves 2016). Additionally, from an operator perspective, actively engaging with customers, helps to identify and act upon key relational mediators in the case of changing requirements and arising issues, therefore, offering a competitive advantage.

In order to meet information demands and demonstrate trustworthiness, literature suggests that canteen operators can benefit from adopting a proactive approach that facilitates information sharing in a proactive and dynamic way to address consumers' high information demands (Chathoth et al. 2014). Technological approaches such as smartphone apps or a strong social media presence, can engage with consumers through interaction in a way that is well received (Chathoth et al. 2014). However, establishing technological communication with consumers requires investment and motivation on the behalf of canteen operators, as platforms for sharing need to be developed as well as maintained with adequate up to date information.

Using smartphone apps in a canteen setting can help to portray a vast amount of food information on different consumer criteria of importance. However, engaging with customers through technology needs to fulfil their demands as a provision of a service that does not meet customer requirements can add to negative attitudes towards the contract caterer (Dovaliene et al. 2016). In a workplace canteen setting this also needs to be designed in a way that does not disturb other guests and allows employees to access information prior to visiting the canteen. Although designing and maintaining a smartphone app that provides dish information can be costly it not only enables consumers to make an informed choice but also provides contract caterers with a competitive advantage when bidding for contracts. Furthermore, smartphone apps can be used by canteen operators as a platform for marketing and informing customers about offers which in return can increase sales. Nevertheless, consumers only use services provided if they are technically convenient (Dovaliene et al. 2016). Hence, the use of technology to engage with customers requires commitment to establish a system that is both user friendly and fulfils customer demands whilst allocating resources that allow to maintain a

flow of information that keeps the app interesting and informative for the consumer (Zhao and Balagué 2015).

Additionally, whilst the growth of digital technologies not only provides operators with various sales and marketing opportunities, there is also a risk for canteen operators to lose control over their brand conversation (Mintel 2015a). Customers often feel that it is easier to make a complaint online rather than in person. Combined with the perceived inferior quality of food served, negative content aired online is likely to be magnified and reach a large number of other customers. Therefore, when committing to engage with customers through technology, this requires having a strong presence that helps the caterer to be part of the conversation and demonstrate willingness to resolve issues (Mintel 2015a).

Even so, interaction with guests should not shift towards the sole use of technological approaches. As results of this study show, canteen operators offer information days where local food producers are invited and these events are well received. Literature suggests that events like this actively engage customers and can be encouraging consumers who do not usually show a great interest in healthy eating or aspects related to socially responsible food production (Davies et al. 2014). Events such as information days or workshops, where canteen operators develop a presence, are a way to demonstrate to consumers that their opinion is of importance and that their needs are being met (Goggins and Rau 2016). Communicating to consumers that feedback is welcome, can enable canteen operators to get important insights into their consumers' preferences, concerns and what importance consumers attach to issues such as sustainable and ethical production of food (Goggins and Rau 2016).

6.8 Recommendations for Practice

Food choices made at work are influenced by many factors, some of these are out of the control of the individual. Result of this study have shown that there is a high demand for healthy food in workplace canteens but choices made on a daily basis do not always reflect this based on a perception of inferior quality of food served. Further, employees value their workplace canteen as a convenient place to eat and socialise with colleagues. This highlights the need for employers and canteen operators to create an eating environment that is supportive of healthy eating, but considers other aspects. As part of this, healthy dishes that reflect good value for money using fresh ingredients and limiting the use of additives should be offered.

Currently, there is little information on criteria of importance that helps consumers make an informed decision when eating in their workplace canteen. Additionally, canteen operators have criticised a lack of guidance that enables them to communicate food information to their customers. Contract caterers should establish a central system that guides the information provision in workplace canteens. This can help to market transparency and demonstrate trustworthiness to customers.

Front of house cooking can be a showcase for fresh and high quality ingredients to be used. Additionally, it can address consumer demands for more transparency as part of the cooking process is visible to the consumer. For dishes, using fresh ingredients where little information is passed through the supply chain, front of house cooking acts as a subliminal quality cue to consumers and replaces the need for additional information.

Consumers value more information about the food that they eat at work. However, this must be delivered in a way that is accessible and can be understood. Delivering food information through technological approaches serves those who show a high involvement in food decisions and require in-depth information, whilst quality assurance communicated through a logo can demonstrate a high quality that can be heuristically processed. Furthermore, not only do technological approaches and quality assurance schemes provide information, they also increase trustworthiness and demonstrate canteen operators' commitment to improve the food that they serve. Technical approaches engage with customers and also provided additional sales and marketing opportunities.

Using Germany and the UK as market examples has shown that consumers in Germany and the UK put similar emphasis on key informational criteria of importance and that they have a shared preference in regards to preferred ways of receiving food information. Additionally, the lack of knowledge of how to portray information to consumers has been identified as a barrier to meeting consumer demands by canteen operators. Given that there are strong similarities between both countries, contract caterers' operating in several countries can take a more regional approach to delivering food information which will aid in harmonising the way food information is delivered to consumers.

Summary

A theoretical model of how information provision based on consumer criteria of importance influences the relationship between consumer and canteen operators which can foster trust is presented integrating both primary and secondary research. In Chapter 8, conclusions, limitations and recommendations for further study will be given.

Chapter 7

Conclusions, Limitations and Recommendations for Further Study

Introduction

This thesis began by indicating the gaps in the literature pertaining to consumer requirements and issues around trust in food served in workplace canteens. Literature on eating out and trust as well as information quality and ways of providing food information was reviewed to identify the most recent advances in order to conceptualise a framework for this study. A mixed methodological approach was chosen as the most appropriate way to answer the research questions as well as incorporating the multiple levels of the food system. Findings of this study were presented and discussed in the context of the literature proposing a model illustrating how appropriate information provision can impact on the relationship between consumer and workplace canteen operators that fosters trust. In this final chapter, the study aims are reviewed, the key findings and their contribution to theory, policy and practice are highlighted. Furthermore, some limitations are acknowledged and recommendations for future extensions of this research are made.

7.1 Revisiting the Research Question, Aim of the Study and the Methods Used

Although there has more recently been an increase in the literature pertaining to trust in relation to food and food labelling, it remains an emerging field in regards to food served in workplace canteens. Previous work has focussed on the role nutrition labelling or reformulation of recipes can have on food choices made in workplace canteens and how this can impact on health. However, there have been no studies that have revealed further criteria of importance, other than nutrition, that are relevant to consumers and identified further information requirements. Furthermore, no studies have examined consumers' preferred information provision approach in this captive setting, where choice and information available differ from those provided in a retail setting. The occurrence of past issues in the food chain has led to a decrease in trust and consumers re-evaluating their priorities as well as their role in the food system. Consumers perceive an asymmetry between them and the food industry in general whereby there is not only a lack of information about food but also misleading information provided. This has led to a shift towards alternative food production methods that are more trusted by consumers. The occurrence of horsemeat gate raised the question of how trust can be established in food provided in workplace canteens. While some studies have started to examine how trust can be established in agriculture and the retail sector, none of these focused on the consumer requirements and how these can be communicated efficiently to establish trust in workplace canteens.

The primary research question of this study was therefore defined as: 'What are the consumer requirements when making food choices in a workplace canteen?' Related to this question further questions were proposed as following:

- What are the most important criteria influencing food choices made in workplace canteens?
- What ways of providing information are preferred by consumers?
- Are there differences in consumer requirements for different subgroups of the sample population?
- What do workplace foodservice operators believe is most important for their customers?
- How is food information communicated to consumers?
- How practicable is it to provide food information to consumers?
- Are there challenges associated with meeting consumer demands?

The research study was designed to address these questions and their associated gaps in knowledge. Therefore, the aim of this study is to critically evaluate key informational criteria of importance that consumers attach to food served and how these can be communicated to establish trust in workplace canteens.

To answer these research questions and meet the aim and objectives of this study, both qualitative and quantitative data collection methods were used in a mixed methods design. The first empirical study was qualitative and used four focus group discussions in Germany and the UK. Findings identified preceding factors that determine the use of workplace canteens and informational criteria that are of importance to consumers when making food choices at work. The findings of this study revealed important insights into barriers and facilitators to making use of workplace canteens that are related to a perceived inferior quality of food served. Further, criteria of importance consumers attach to food when eating at their place of work have been identified. However, these criteria could not alone be countable to describe the information needs of consumers or be used to explain what criteria need to be met for trust to be established in food served at work.

The second empirical study tested the importance of criteria that were identified through the focus groups in empirical study 1 through the use of a survey questionnaire. Therefore, best-worst scaling was used to design a questionnaire, whereby respondents were required to make trade-offs between eight different food criteria of importance and six different ways of providing food information. This provided an important insight into the most important criteria

of 317 respondents as well as similarities and differences between countries and different consumer segments.

Results from the first two studies were used to inform the third empirical study which gained insights into canteen operators' views consumer requirements and information needs. Through semi-structured interviews with ten canteen operators, important barriers and enablers to customer requirements were identified. The following section reflects the key findings of the study before the contribution to theory, practice and policy are presented.

7.2 Conclusions

Researching criteria of importance that consumers attach to food allows an understanding of consumer information requirements when eating at work that can be used by canteen operators to tailor their offer towards their customers need in order to demonstrate commitment and increase trust in the food served. Learnings can be used in other foodservice outlets including public sector foodservice.

Results from this study concur with the body of literature that indicates that there are criteria of importance that differ between consumer segments and that information provided on these criteria is limited. Consequently, consumers struggle to make an informed choice when eating at their place of work. Although this clearly demonstrates that there is a high demand for food information in workplace canteens, there are practical challenges to what information can be provided and choosing the format that is most preferred by consumers.

Consumers have expectations for food based on informational criteria of importance which affect their food choices. However, currently little information on identified criteria of importance is available and the credence nature of some of these criteria requires trust that the dishes selected meet these criteria. Therefore, consumers require a greater amount of information that can demonstrate trustworthiness in order to help them make appropriate choices. This study has shown that there is a perception of inferior quality of food served in workplace canteens and that there is a struggle to make choices or easy to make the wrong choice from a health perspective from ignorance or misconception. This is also partly caused by a lack of information on nutritional profile as well as other criteria of concern. Additionally, consumers have different agendas that relate to food criteria of importance, which are often influenced by lifestyle choices and values. These range from having an economically, value driven outlook to a focus on health to putting a high value on moral aspects of food consumption including ecological sustainability as well as the fair treatment of animals and

others. The challenge for the foodservice industry is to provide products and services that facilitate and enhance positive food choice in all population segments especially in a canteen where meals are eaten on a consistent basis.

This study presents a novel contribution by applying the concept of trust and relationship marketing to the relationship between business, contract caterers, and customer in workplace canteens.

The following conclusions can therefore be made from this thesis.

Firstly, consumers attach importance to a variety of different criteria when eating at their place of work and align to different consumer segments. Nevertheless, results demonstrate that consumers put a high emphasis on food being affordable, offering good value for money, convenient and healthy using fresh ingredients whilst limiting the use of additives.

Secondly, there is a growing demand for information on criteria that can be classed as socially responsible and information on dishes incorporating ingredients that are produced in a socially responsible way.

Thirdly, canteen operators should be supported to provide information on criteria of importance that are relevant to consumers through the implementation of a system using appropriate communication channels.

Fourthly, contract caterers need to market and position themselves as trustworthy, giving transparent information. Quality assurance and branding are well received information forms by consumers and can aid in the process. These can help to address issues raised by canteen operators in regards to consumer perceptions that food served in workplace canteens is of inferior quality.

In cases where little information is available throughout the supply chain, front of house cooking could be used as a way of demonstrating transparency and the use of fresh ingredients can be seen as quality cues by consumers.

Technological approaches to communicate information are favoured by consumers. Further, food information should be delivered in a format that can be processed by consumers heuristically, given the time constraints associated with eating in the workplace canteen. Nutrition information has been favoured by being presented using the traffic light format.

Lastly, quality assurance communicated through a logo can demonstrate a high quality that can be heuristically processed.

7.3 Recommendations for Workplace Canteens

- Employers and canteen operators should create an environment that is supportive of healthy eating.
- Dishes that are healthy reflecting good value for money using fresh ingredients should be offered.
- Contract caterers should establish a central system that guides information provision.
- Canteen operators need to increase their trustworthiness through commitment that they are willing to meet consumer demands and improve the food they serve.
- Front of house cooking can address consumer demands for more transparency.
- Consideration should be given to technological approaches to deliver food information for those consumers who show a high involvement in food decisions or require in-depth food information
- Quality Assurance demonstrates high quality signals that can be processed quickly and heuristically.

7.4 The Contributions of this Study

This study has clearly conceptualised and identified criteria that consumers attach to food and therefore established a need for information on these aspects combined with insights into preferred ways of accessing information on these aspects. Although there are no distinct differences between the importance between criteria and preferences for information communication, there are differences between certain types of consumers. Furthermore, this study has highlighted that operators have got a sound understanding of their customer's needs. Yet, there are barriers and enhancers to meeting consumers' information requirements on different criteria of importance that were identified. This study presents a novel contribution by applying the concept of trust and relationship marketing to the relationship between business, contract caterers, and customer in workplace canteens as a setting of Business and Industry foodservice. The following sections outline the contributions made to knowledge, practice and policy.

7.4.1 Contribution to Knowledge

This study makes a contribution to Luhmann's (1979) and Giddens' (1991) theories of trust by applying these theories to the context of workplace canteens as a representative of public sector foodservice. Consumers chose food that meets their values and trust is placed in those stakeholders of the food system that offer food based on shared criteria of importance. Due to the credence nature of many of these criteria that are of importance, there is a reliance on trust in canteen operators when eating at work. However, past issues in the food chain have had an effect on consumer trust in workplace foodservice. Hence, foodservice operators are facing greater challenges in sustaining their competitive position and retaining the confidence of their customers. Foodservice operators need to respond to the changing needs of their customers and find a way to establish a relationship and engage with them. This study has applied Morgan and Hunt's (1994) Commitment Trust Theory to the relationship between workplace foodservice operator and consumer. Therefore this study contributes to this theory of relationship marketing by applying it to the context of workplace foodservice and the B2C relationship. By providing their customers with information on food criteria of importance that is made available to them in a format that can be easily utilized, canteen operators can demonstrate that they share their customers' values and demonstrate their commitment towards a relationship that is based on transparency and trust. Based on greater information provision, consumer trust in the food served in workplace canteens as well as in the foodservice operator can be fostered and henceforth lead to greater trust in the food system in general.

7.4.2 Implications for Practice

The findings of this research have a number of implications for practice in the provision of food in workplace canteens. Consumers have expectations in food based on criteria of importance which affect their food choices. However, currently little information on identified criteria of importance is available and the credence nature of some of these criteria requires consumer trust that the dishes selected meet these criteria. Therefore, consumers need a greater amount of information that can demonstrate trustworthiness in order to help them make appropriate choices. This study has shown that consumers perceive the quality of food served in workplace canteens to be inferior and that they struggle to make choices or make the wrong choice from a health perspective, from ignorance or misconception. This is also partly caused by a lack of information on nutritional profile as well as other criteria of concern. Findings of this study show that information on Nutrition, Value for Money and Naturalness are the top three aspects consumers require information on. Differences between clusters, as the results

of the latent class analysis show, demonstrate that consumers have different agendas that relate to food criteria of importance, which are often influenced by lifestyle choices and values. These range from having an economically, value driven outlook to a focus on health to putting a high value on moral aspects of food consumption including ecological sustainability as well as the fair treatment of animals and others. The challenge for the foodservice industry is to provide products and services that facilitate and enhance positive food choice in all population segments especially in a canteen where meals are eaten on a consistent basis. Through gaining insight into the perspectives of both consumers and canteen operators, consumers can be provided with information that is relevant to them and enable informed dish decisions. Giving catering managers the understanding of what information consumers' value and how they prefer this to be communicated can enable a more competitive operator. Having this insight into consumer information needs can be used by canteen operators to align their offer to consumer needs and when bidding for contracts, demonstrate to employers that they can form part of corporate health and employer branding strategies.

7.4.3 Implications for Policy

Meals provided in the workplace can form an important part of the overall diet of those who regularly use workplace canteens. The importance of health and wellbeing at work is recognised and forms part of the Europe 2020 strategy for growth, competitiveness and sustainable development. The World Health Organisation (WHO 2004) encourages health promotion in the workplace which is an important setting for intervention given that adults in the UK spend around 60% of their waking time at their place of work (DoH 2005). Therefore, the workplace can be a key environment in shaping dietary behaviour that can be beneficial to an employee's health through the provision of nutritious food and decrease the risk of developing chronic disease. Providing consumers with information about the nutritional profile of food, provenance and other important factors at the point of purchase can empower them to make better food choices. However, information needs to be of relevancy and portrayed in a format that can be utilized by consumers. Better information enables transparency for the foodservice operator while allowing evidence of greater integrity. From a public health and food policy perspective, providing consumers with information at the point of purchase will empower and provide the framework for measured food choice decisions.

7.5 Limitations

The choice of the sequentially administered methods was most appropriate to successfully address the research questions of this study. Empirical study 1 enabled the development of the eight informational criteria of importance that were tested and grounded in consumers' own vocabulary. Design of empirical study 2, using best-worst scaling avoided issues such as social desirability bias. Additionally, taking into account views of both consumers and industry stakeholders has enabled a strong contribution to theory and practice to be made. Nevertheless, the findings of this study need to be viewed in light of limitations.

This study has focussed on trust in workplace canteens using Germany and the UK as an example. Therefore, the context of the two countries, their consumers and stakeholders has an influence on the findings.

The respondents taking part in the survey questionnaire were predominantly under the age of 30 years and working in professional or associate professional occupations. Therefore, it is not clear how far the importance of different criteria and preferences of receiving information on these criteria represents the views of older employees or employees working in manual labour or blue collar workplaces.

Lastly, although this study uses different theories relating to trust as a theoretical underpin and applies this to food served in workplace canteens, this study does not measure consumer trust.

7.6 Recommendations for Further Study

This investigation concentrated on workplace canteens. A progression would therefore be to extend this research to other outlets of foodservice.

An additional further progression of this study would be to look at other markets that are outside of Europe. Hereby consumer information needs and method of information delivery in other growing markets in Asia could be explored.

This study has identified that a large segment of consumers prefer information to be provided through an interactive means. Hence, recommendations for further research would be to develop and evaluate a technical solution that provides food information to consumers that is suitable for use in workplace canteens.

Further research could develop the questionnaire on the importance of the different criteria to incorporate questions that relate to the type of workplace canteen and customer satisfaction. Alternatively, a field experiment could explore whether information provided on criteria of importance leads to greater confidence in canteen operators and customer satisfaction. Identifying the gaps in meeting customer expectations can support contract caterers in developing future improvements to their offer.

This study focussed on the improvement of consumer trust in food served in workplace canteens through food information provision. Nevertheless, consumer trust has not been measured. Therefore, further research could focus on measuring consumer trust pre- and post-intervention of information provision.

7.7 Critical Reflection of the Researcher's Journey

Although daunting at first, I was always committed to completing the research which helped me focus when facing certain challenges. One of the most difficult challenges was to grasp that certain stages of the study can take longer than planned and that there is a reliance on other people especially during data collection. Nevertheless, I am certain that experiencing difficulties along the way has allowed me to obtain a far more accurate picture of what undertaking research entails.

Reflecting on the process of data collection, it was more challenging than anticipated. At times it was difficult to get the approval of employers to forward details about both consumer studies to their employees. Similarly, it required a lot of persistence to get in contact with contract caterers and canteen operators, especially as some contacts had to be made without any previous links or connections. Whilst it took me some time to approach new people I am glad that I have overcome my initial shyness and feel more confident in making new contacts.

At the beginning of this research, it seemed an accomplishable task and throughout, there were stages where deadlines passed and I was worried that the research was not going to be finished in time. However, overall the experience of completing a project outweighed those doubts and I am now excited about the prospects of partaking and completing future research and there are still a lot of aspects related to this study that I would like to investigate.

In many respects, the last three years have been a steep learning curve whereby the process undertaken for this PhD has helped me to better understand how theory and knowledge are scientifically developed. This has been the case for both qualitative and quantitative data analysis. Using thematic analysis has taught me how to draw together many experiences and different outlooks, identifying common themes but also recognising the importance of themes that lie outside this common ground. Furthermore, it has provided me with a better understanding of statistics and analytical software programmes, in particular NVIVO, Sawtooth, Latent Gold and SPSS.

The experience of completing this research has further developed my skills of critical thinking. Previously, I would have accepted topics of interest at face value; I have now become more critical in terms of identifying underlying issues and representations. This ability to step back critically has helped me to determine the best course of action in situations that require forward progress and where quick fixes would have been the easy answer.

Completing this PhD has taught me many skills including personal attributes. In order to complete this research whilst also working it required me to be organised, focused and dedicated to the commitments I have made. Further, it has taught me to accept criticism and confront difficulties and challenges that I encounter. Most of all though, I have learned to be more patient and tolerant and as part of that I have a greater appreciation of people being individual.

Appendices

Appendix 1

Question Guide Focus Groups

What are the key drivers for food choice in workplace canteens?

- How regularly do you make use of your workplace canteen?
- How satisfied are you with the food on offer in the canteen?
- What is important to you when you chose food in a worksite canteen?
- What factors influence your food choices at work?

What are consumers` information needs regarding food served in workplace canteens?

- When you are eating in your workplace canteen is there any type of information you particularly pay attention to?
- How does this differ from any food choices you make when you do your food shopping?
- How satisfied are you with the information provided to you in the canteen setting?
- What other information would you like to see provided?

Appendix 2



Participant Information Sheet

Trust in Public Sector Foodservice

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the project?

The aim of this study is to critically evaluate criteria of importance that consumers attach to food and how these can be communicated to the consumer to establish trust in public sector foodservice (worksite canteen). Therefore, it is of interest to know what is important to you when you select food in the canteen at your workplace.

Why have I been chosen?

You have been chosen as a participant to take part in this study as you work in a place where food is provided to employees through a worksite canteen. For this study 15 participants will be recruited from this environment in the UK and 15 in Germany to take part in focus groups.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form) and you can still withdraw at any time without it affecting any benefits that you are entitled to in any way. You do not have to give a reason.

What do I have to do?/ what will happen to me if I take part?

You will take part in a focus group together with approximately 6 other participants. In this group you will be asked questions about your food choices made when selecting food at work. The setting of a focus group will ask you to discuss your opinion with the group. The duration of the focus group will approximately take 30 minutes.

The researcher will be present to conduct the focus group and a colleague who will assist in taking notes.

What are the possible benefits of taking part?

Whilst there are no immediate benefits for participating in the project, it is hoped that this work will contribute to enable operators of worksite canteens to enhance their menu and get a better understanding of consumer needs and demands.

Will my taking part in this project be kept confidential?/ What will happen to the results of the research project?

The focus group discussion will be audio recorded using a Dictaphone. All the information that we collect about you during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports or publications. If you decide to participate, you are taking part in one stage of a project which runs over three years. The project is anticipated to be completed in September 2016. However, you will only take part in one focus group.

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

You will be asked questions about food choices you make in your worksite canteen which will form part of a discussion amongst other participants. Additionally you will be asked questions about information you would like about the food you are eating at work. The information gathered from the focus group will be used to develop a questionnaire that will be given out to a sample of 150 participants from the UK and 150 participants from Germany.

Who is organising/funding the research?

Solutions for Chefs is funding this research

Contact for further information

Sarah Price
Postgraduate Researcher
School of Tourism
Bournemouth University, BH12 5BB
Sarah.Price@bournemouth.ac.uk

Complaints can be made to:
Professor Heather Hartwell
Foodservice and Applied Nutrition Research
Group &
Health and Wellbeing
School of Tourism
Bournemouth University, BH12 5BB
HHartwell@bournemouth.ac.uk

The audio of your activities made during this research will be used only for analysis. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

You will be given this information sheet for your records. Additionally, you will be given a copy of your signed consent form to keep.

Thank you very much for taking the time to read through this information sheet.

Appendix 3

Consent Form



Bournemouth
University

Trust in Public Sector Foodservice

Sarah Price, Postgraduate Researcher, Contact: Sarah.Price@bournemouth.ac.uk

Supervisor: Dr Heather Hartwell, Contact: HHartwell@bournemouth.ac.uk

Please Initial Here

I confirm that I have read and understood the participant information sheet for the above research project and have had the opportunity to ask questions.	
I understand that my participation in this focus group is voluntary and that I am free to withdraw at any time, without giving reason and without there being any negative consequences. In addition, should I not wish to answer any particular question(s), complete a test or give a sample, I am free to decline.	
I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research. Research materials will be stored securely and kept for 5 years after the completion of the project.	
I agree to take part in the above research project.	

Name of Participant

Date

Signature

Name of Researcher

Date

Signature

Appendix 4
Questionnaire

Welcome to this survey.

You have been invited to take part in this survey because you work in a place where food is provided to employees through a worksite canteen. This survey forms part of the study "Trust in Public Sector Foodservice". The aim of the study is to evaluate criteria of importance that consumers attach to food and how these can be communicated to the consumer to establish trust in public sector foodservice (workplace canteens).

The first part of this questionnaire would like to assess what criteria are important to you when you make food choices in your worksite canteen. Therefore, you will be presented with 8 different choice sets in which I would like to ask you to select the most and the least important criteria. Below are the criteria that will be tested in the following choice sets. Please read through the list of criteria and their definitions.

Criteria	Definitions
Value for Money	Value for Money in terms of the price that was paid for the dish
Organic	Organic food is produced in a way that respects natural life cycles. It minimises the human impact on the environment and operates as naturally as possible.
Environmental Impact	The effect the food production has on the environment
Naturalness	The extent to which fresh ingredients are used, less use of processed foods containing additives and preservatives
Nutrition	Nutritional composition of the food (Fat, Carbohydrates, Protein etc.). Availability of healthy food.
Fair Trade	Fair Trade aims to help producers in developing countries to get a fair price for their products so as to reduce poverty, provide the ethical treatment of workers and farmers and promote environmentally friendly and sustainable practices.
Provenance	Where the food was produced/commodities grown
Animal Welfare	How an animal is coping with the condition in which it lives. An animal is in a good state of welfare if it is healthy, comfortable, well nourished, safe, able to express innate behaviour and if it is not suffering from unpleasant states such as pain, fear and distress.

When you make a dish selection in your workplace canteen, which criteria are the most and the least important to you?

Most important		Least Important
<input type="radio"/>	Organic	<input type="radio"/>
<input type="radio"/>	Fair Trade	<input type="radio"/>
<input type="radio"/>	Value for Money	<input type="radio"/>
<input type="radio"/>	Animal Welfare	<input type="radio"/>

When you make a dish selection in your workplace canteen, which criteria are the most and the least important to you?

Most important		Least Important
<input type="radio"/>	Value for Money	<input type="radio"/>
<input type="radio"/>	Organic	<input type="radio"/>
<input type="radio"/>	Naturalness	<input type="radio"/>
<input type="radio"/>	Environmental Impact	<input type="radio"/>

When you make a dish selection in your workplace canteen, which criteria are the most and the least important to you?

Most important		Least Important
<input type="radio"/>	Naturalness	<input type="radio"/>
<input type="radio"/>	Value for Money	<input type="radio"/>
<input type="radio"/>	Fair Trade	<input type="radio"/>
<input type="radio"/>	Provenance	<input type="radio"/>

When you make a dish selection in your workplace canteen, which criteria are the most and the least important to you?

Most important		Least Important
<input type="radio"/>	Animal Welfare	<input type="radio"/>
<input type="radio"/>	Naturalness	<input type="radio"/>
<input type="radio"/>	Nutrition	<input type="radio"/>
<input type="radio"/>	Value for Money	<input type="radio"/>

When you make a dish selection in your workplace canteen, which criteria are the most and the least important to you?

Most important		Least Important
<input type="radio"/>	Environmental Impact	<input type="radio"/>
<input type="radio"/>	Animal Welfare	<input type="radio"/>
<input type="radio"/>	Organic	<input type="radio"/>
<input type="radio"/>	Nutrition	<input type="radio"/>

When you make a dish selection in your workplace canteen, which criteria are the most and the least important to you?

Most important		Least Important
<input type="radio"/>	Nutrition	<input type="radio"/>
<input type="radio"/>	Environmental Impact	<input type="radio"/>
<input type="radio"/>	Provenance	<input type="radio"/>
<input type="radio"/>	Naturalness	<input type="radio"/>

When you make a dish selection in your workplace canteen, which criteria are the most and the least important to you?





Most important		Least Important
<input type="radio"/>	Provenance	<input type="radio"/>
<input type="radio"/>	Nutrition	<input type="radio"/>
<input type="radio"/>	Animal Welfare	<input type="radio"/>
<input type="radio"/>	Fair Trade	<input type="radio"/>


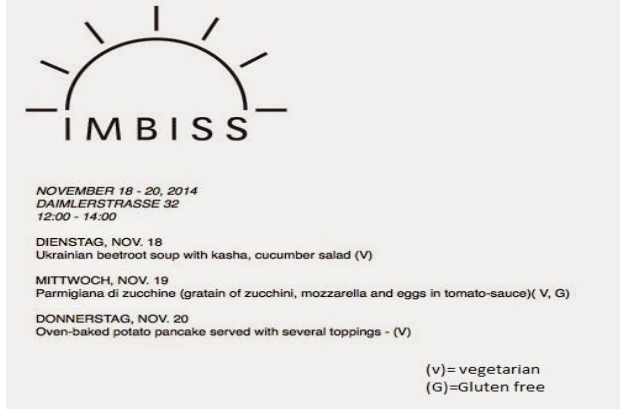
When you make a dish selection in your workplace canteen, which criteria are the most and the least important to you?

Most important		Least Important
<input type="radio"/>	Fair Trade	<input type="radio"/>
<input type="radio"/>	Provenance	<input type="radio"/>
<input type="radio"/>	Environmental Impact	<input type="radio"/>
<input type="radio"/>	Organic	<input type="radio"/>

We would also like to know if you can tell us how or why you have made these decisions? This question is optional.

This second part of the questionnaire is interested in finding out about how you prefer food information to be communicated to you. Therefore, you will be asked to select your most and least preferred information forms in each choice set. Please read through the different forms of information provision and their definitions below.

Information form	Definition
Traffic Light Labelling	<p>Traffic light labels use red, amber and green signals to show consumers at-a-glance, whether a product is high, medium or low in fat, saturated fat, sugars and salt.</p> 
Information Box	<p>Information boxes provide information on aspects of the food such as ingredients, allergens and nutritional information</p> 
Brand	<p>Making use of brands as cues for information</p> 
Quality Assurance	<p>Quality Assurance for food products, describe a scheme whereby the food is produced to a set of standards and the producer/processor is inspected to ensure that production is in accordance with those standards. Quality Assurance is often indicated through the use of a logo.</p> 

Interactive Information Provision	<p>This form of information provision describes contact information for further inquiry or the provision of a QR code which can be scanned using a smartphone to obtain further information.</p> 
Footnotes	<p>Some menu boards display footnotes that give further information about ingredients etc.</p> 

Please consider what ways of providing food information you find most comprehensive. When food information is provided to you, what is your most and your least preferred way of having information shown to you?

Most preferred		Least preferred
<input type="radio"/>	Brands	<input type="radio"/>
<input type="radio"/>	Footnotes	<input type="radio"/>
<input type="radio"/>	Quality Assurance	<input type="radio"/>

Please consider what ways of providing food information you find most comprehensive. When food information is provided to you, what is your most and your least preferred way of having information shown to you?

Most preferred		Least preferred
<input type="radio"/>	Quality Assurance	<input type="radio"/>
<input type="radio"/>	Traffic Light Labelling	<input type="radio"/>
<input type="radio"/>	Interactive Information QR Code	<input type="radio"/>

Please consider what ways of providing food information you find most comprehensive. When food information is provided to you, what is your most and your least preferred way of having information shown to you?

Most preferred		Least preferred
<input type="radio"/>	Footnotes	<input type="radio"/>
<input type="radio"/>	Brands	<input type="radio"/>
<input type="radio"/>	Interactive Information QR code	<input type="radio"/>

Please consider what ways of providing food information you find most comprehensive. When food information is provided to you, what is your most and your least preferred way of having information shown to you?

Most preferred		Least preferred
<input type="radio"/>	Traffic Light Labelling	<input type="radio"/>
<input type="radio"/>	Quality Assurance	<input type="radio"/>
<input type="radio"/>	Information Box	<input type="radio"/>

Please consider what ways of providing food information you find most comprehensive. When food information is provided to you, what is your most and your least preferred way of having information shown to you?

Most preferred		Least preferred
<input type="radio"/>	Interactive Information QR code	<input type="radio"/>
<input type="radio"/>	Information Box	<input type="radio"/>
<input type="radio"/>	Traffic Light Labelling	<input type="radio"/>

Please consider what ways of providing food information you find most comprehensive. When food information is provided to you, what is your most and your least preferred way of having information shown to you?

Most preferred		Least preferred
<input type="radio"/>	Information Box	<input type="radio"/>
<input type="radio"/>	Brands	<input type="radio"/>
<input type="radio"/>	Footnotes	<input type="radio"/>

Demographic Information

The following questions help to analyse the findings of this survey. It is therefore important, that the answers given in the previous sections can be analysed in terms of characteristics that describe groups of the society. In order to achieve this, detailed information about your person is needed. The data will not be analysed in terms of yourself as an individual but for groups that fit your characteristics such as age, sex or qualification.

Please indicate your sex.

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>

The results of this survey will also be analysed in terms of different groups of ages. Please indicate the month (mm) and year (yyyy) you were born.

Month	<input type="text"/>
Year	<input type="text"/>

In which country were you born. Please tick as appropriate.

Born in the UK	
Born outside the UK	

If you were born outside of the UK please answer the question below. If you were born in the UK please do not answer this question and progress to the next question.

Were you born in another EU Member State?

Yes	
No	

Do you have any dietary requirements that affect your food choice?

Religion: ie. halal, kosher food	
Allergies	
Health related reasons: ie. diabetic	
None	
Other Please specify	

Please provide the number of people that live in your household

Please indicate which of the below presented options best summarises the type of household you currently live in.

Single-person household incl. flat sharing and lodging	
Multi-person household	
Lone parent with children aged less than 25 years	
Lone parent with children aged 25 years and over	
Couple without children aged less than 25 years	
Couple with children aged less than 25 years	
Couple or lone parent with children aged less than 25 years and other people living in the household	
Other type of household	

What is your current employment status?

Full time (more than 30 hours)	
Part time (less than 30 hours)	

Please provide your job title in the box below. If you feel that a short description of your role adds to the understanding of your job title, then please provide a short description.

Please provide your highest level of education in the box below.

Thank you very much for the time you have taken to fill in this survey.

If you have got any questions regarding the project or this survey please contact Sarah.Price@bournemouth.ac.uk.

Appendix 5

Interview guide

Firstly, can I begin with asking you a few questions about yourself?

What is your age?

Can you provide a brief description of your role as canteen manager?

How long have you been working in the industry?

Can you briefly describe your canteen and the food you offer?

In your professional opinion, what are the most important factors that influence your customers` food choices?

Consumers have indicated that when they eat in their worksite canteen, they struggle to make food choices because there is a lack of information and trust available. How do you see this?

How are you currently communicating food information on quality aspects to your customers?

Under the current EU regulation, more information has to be made available since last December. How feasible do you see it to provide information on other aspects of food such as origin or environmental impact of food?

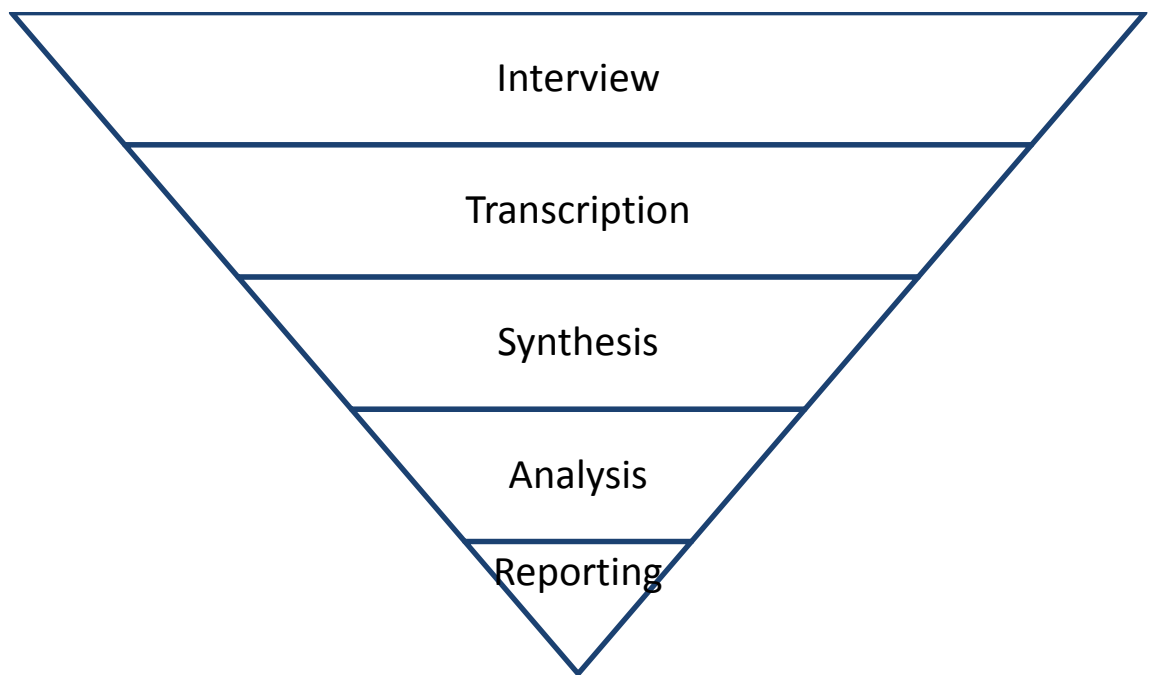
Are you currently using any technical solutions to store or communicate information to consumers?

Appendix 6

Evaluation of Advantages and Disadvantages of Phone Interviews. Taken from Vogl (2013).

Advantages of Phone Interviews	Disadvantages of Phone Interviews
<p>Limited Personal Contact</p> <ul style="list-style-type: none"> • Suggests anonymity and privacy → participants feel comfortable to share sensitive information • Reduced social desirability <p>Exchange limited to verbal and paralinguistic signals</p> <ul style="list-style-type: none"> • More focussed communication • Less interviewer bias • Fewer distractions • Power imbalance is not visible • Respondents have increased control over the process • Richer text <p>Economic Advantage</p> <ul style="list-style-type: none"> • Cheap and easy reachability • Wide geographical coverage • Hard-to-reach participants are accessible • Safe environment for researcher 	<p>Limited Personal Contact</p> <ul style="list-style-type: none"> • Trust is more difficult to establish • Endangers motivation and concentration <ul style="list-style-type: none"> ▪ Shorter and superficial responses ▪ More satisficing ▪ Fewer pauses • Impersonal, anonymous character <p>Exchange limited to verbal and paralinguistic signals</p> <ul style="list-style-type: none"> • Less cues for understanding • More interactional difficulties • No visual aids • Less control over interview situation (potentially 3rd person present) • Control over conversation more difficult to attain for interviewer • Less context information/ social cues • Less depth of responses

Appendix 7



Data Reduction in Thematic Qualitative Analysis. Taken from: Irvine 2011.

References

- Aaker, D. A., 1996. *Building strong brands*. New York : Free Press, 1996.
- Aaker, D. A., 2010. *Building strong brands / David A. Aaker*. London : Pocket, 2010.
- Abbots, E. J. and Coles, B., 2013. Horsemeat-gate THE DISCURSIVE PRODUCTION OF A NEOLIBERAL FOOD SCANDAL. *FOOD CULTURE & SOCIETY*, 16 (4), 535-550.
- Achilleas, K. and Anastasios, S., 2008. Marketing aspects of quality assurance systems: the organic food sector case. *British Food Journal*, 110 (8), 829-839.
- Adams, J., Goffe, L., Brown, T., Lake, A. A., Summerbell, C., White, M., Wrieden, W. and Adamson, A. J., 2015. Frequency and socio-demographic correlates of eating meals out and take-away meals at home: Cross-sectional analysis of the UK National Diet and Nutrition Survey, waves 1–4 (2008–12). *The International Journal of Behavioral Nutrition and Physical Activity*, 12.
- Adamsen, J. M., Rundle-Thiele, S. and Whitty, J. A., 2013. Best-Worst scaling...reflections on presentation, analysis, and lessons learnt from case 3 BWS experiments. *Market & Social Research*, 21 (1), 9-27.
- Adamson, I., Chan, K.-M. and Handford, D., 2003. Relationship marketing: customer commitment and trust as a strategy for the smaller Hong Kong corporate banking sector. *International Journal of Bank Marketing*, 21 (6/7), 347-358.
- Adler-Nissen, J., Akkerman, R., Frosch, S., Grunow, M., Løje, H., Risum, J., Wang, Y. and Ørnholt-Johansson, G., 2013. Improving the supply chain and food quality of professionally prepared meals. *Trends in Food Science & Technology*, 29 (1), 74-79.
- Ali, J. and Nath, T., 2013. Factors Affecting Consumers' Eating-Out Choices in India: Implications for the Restaurant Industry. *Journal of Foodservice Business Research*, 16 (2), 197-209.
- AlTal, S., 2012. MODELING INFORMATION ASYMMETRY MITIGATION THROUGH FOOD TRACEABILITY SYSTEMS USING PARTIAL LEAST SQUARES. *Electronic Journal of Applied Statistical Analysis*, 5 (2), 237-255.
- Andersen, L. M. and Lund, T. B., 2014. Digging deeper: How do different types of organic consumers influence the increasing organic market share? *British Food Journal*, 116 (1), 16-29.
- Angulo, A. M. and Gil, J. M., 2007. Risk perception and consumer willingness to pay for certified beef in Spain. *Food Quality and Preference*, 18 (8), 1106-1117.
- Arens-Azevedo, U., 2013. The German Portal "Clearness and Trueness - Lebensmittelklarheit". *Journal für Verbraucherschutz und Lebensmittelsicherheit*, 8 (4), 364-365.
- Arnott, D. C., 2007. Trust — current thinking and future research. *European Journal of Marketing*, 41 (9/10), 981-987.
- Aschemann-Witzel, J., 2015. Consumer perception and trends about health and sustainability: trade-offs and synergies of two pivotal issues. *Current Opinion in Food Science*, 3, 6-10.
- Aschemann-Witzel, J., Perez-Cueto, F. J. A., Niedzwiedzka, B., Verbeke, W. and Bech-Larsen, T., 2012. Transferability of private food marketing success factors to public food and health policy: an expert Delphi survey. *Food Policy*, 37 (6), 650-660.
- Assiouras, I., Liapati, G., Kouletsis, G. and Koniordos, M., 2015. The impact of brand authenticity on brand attachment in the food industry. *British Food Journal*, 117 (2), 538-552.
- Auger, P., Devinney, T. M. and Louviere, J. J., 2007. Using Best: Worst Scaling Methodology to Investigate Consumer Ethical Beliefs across Countries, 299.
- Bacon, L., Lenk, P., Seryakova, K. and Veccia, E., 2008. Comparing Apples to Oranges. (cover story). *Marketing Research*, 20 (1), 29-34.
- Bailey, A. P. and Garforth, C., 2014. An industry viewpoint on the role of farm assurance in delivering food safety to the consumer: The case of the dairy sector of England and Wales. *Food Policy*, 45, 14-24.

- Baksi, S. and Bose, P., 2007. Credence goods, efficient labelling policies, and regulatory enforcement, *Environmental and Resource Economics* (Vol. 37, pp. 411-430). Dordrecht; Netherlands: Springer Science + Business Media.
- Banterle, A., Cavaliere, A. and Ricci, E. C., 2012. Food labelled information: an empirical analysis of consumer preferences. *International Journal on Food System Dynamics*, 3 (2), 156-170.
- Barfield, J., 2014. Food Service App Allows Students to Order Meals With Smartphones, Avoid Long Lines. Available from: <http://search.ebscohost.com/login.aspx?direct=true&db=edsnbk&AN=150215B3564B69A8&site=eds-live&scope=site> [Accessed 20 June 2015].
- Barger, B., Nabi, R. and Hong, L. Y., 2010. Standard back-translation procedures may not capture proper emotion concepts: A case study of Chinese disgust terms. *Emotion*, 10 (5), 703-711.
- Baron, S., Warnaby, G. and Conway, T., 2010. *Relationship Marketing : A Consumer Experience Approach*. Los Angeles: Sage.
- Barrows, C. W. and Powers, T. F., 2011. *Introduction to the hospitality industry / Clayton W. Barrows, Tom Powers*. Hoboken, N.J. : Wiley, 2011.
- Baumgartner, H. and Steenkamp, J.-B. E. M., 2001. Response Styles in Marketing Research: A Cross-National Investigation. *Journal of Marketing Research (JMR)*, 38 (2), 143-156.
- Bazeley, P. and Jackson, K., 2013. *Qualitative data analysis with NVivo*. 2nd ed. London : SAGE, 2013.
- Beck, U., 1992. *Risk society : towards a new modernity / Ulrich Beck ; translated [from the German] by Mark Ritter*. London : Sage, 1992.
- Becker, G. S., 1976. *The economic approach to human behavior / Gary S. Becker*. Chicago : University of Chicago Press.
- Bellou, V., Chaniotakis, I., Kehagias, I. and Rigopoulou, I., 2015. Employer Brand of Choice: an employee perspective. *Journal of Business Economics & Management*, 16 (6), 1201-1215.
- Benelam, B., 2009. Calories on the menu. *Nutrition Bulletin*, 34 (3), 289-290.
- Berg, L., 2004. Trust in food in the age of mad cow disease: a comparative study of consumers' evaluation of food safety in Belgium, Britain and Norway. *APPETITE*, 42 (1), 21-32.
- Bergin, M., 2011. NVivo 8 and consistency in data analysis: reflecting on the use of a qualitative data analysis program. *Nurse Researcher*, 18 (3), 6-12.
- Bergström, K., Shanahan, H. and Solér, C., 2005. Professional food purchasers' practice in using environmental information. *British Food Journal*, 107 (5), 306-319.
- Berning, J. P., Chouinard, H. H., McCluskey, J. J., Manning, K. C. and Sprott, D. E., 2010. Identifying consumer preferences for nutrition information on grocery store shelf labels. *Food Policy*, 35 (5), 429-436.
- Bert, F., Giacometti, M., Gualano, M. R. and Siliquini, R., 2014. Smartphones and Health Promotion: A Review of the Evidence. *JOURNAL OF MEDICAL SYSTEMS*, 38 (1).
- Bian, M. and Leung, L., 2015. Linking Loneliness, Shyness, Smartphone Addiction Symptoms, and Patterns of Smartphone Use to Social Capital. *Social Science Computer Review*, 33 (1), 61-79.
- Biesta, G., 2010. Pragmatism and the philosophical foundations of mixed methods research.
- Bildtgaard, T., 2008. Trust in food in modern and late-modern societies. *SOCIAL SCIENCE INFORMATION SUR LES SCIENCES SOCIALES*, 47 (1), 99-128.
- Block, J. P., Condon, S. K., Kleinman, K., Mullen, J., Linakis, S., Rifas-Shiman, S. and Gillman, M. W., 2013. Consumers' estimation of calorie content at fast food restaurants: cross sectional observational study. *BMJ (Clinical Research Ed.)*, 346.
- Blythe, J., 2013. *Consumer Behaviour*. California: SAGE.

- Bode, T., 2012. *Die Essenfaelscher: Was uns die Lebensmittelkonzerne auf die Teller luegen*. 2nd ed. Frankfurt am Main: Fischer Taschenbuch Verlag.
- Bollinger, B., Leslie, P. and Sorensen, A., 2011. Calorie Posting in Chain Restaurants, 91.
- Bonfield, P., 2014. *A Plan for Public Procurement - Enabling a healthy future for our people, farmers and food producers*. UK.
- Borgmeier, I. and Westenhoefer, J., 2009. Impact of different food label formats on healthiness evaluation and food choice of consumers: a randomized-controlled study. *BMC Public Health*, 9, 1-12.
- Boyland, E. J. and Christiansen, P., 2015. Brands and food-related decision making in the laboratory: how does food branding affect acute consumer choice, preference, and intake behaviours? A systematic review of recent experimental findings. *Journal of Agricultural & Food Industrial Organization*, 13 (1), 45-54.
- Bradley, R. A. and Terry, M. E., 1952. Rank Analysis of Incomplete Block Designs: I. The Method of Paired Comparisons, 324.
- Bratanova, B., Klein, O., Vauclair, C. M., Kervyn, N., Schumann, S. and Wood, R., 2015. Savouring morality. Moral satisfaction renders food of ethical origin subjectively tastier. *Appetite*, 91, 137-149.
- Braun, V. and Clarke, V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2), 77-101.
- Breck, A., Cantor, J., Martinez, O. and Elbel, B., 2014. Who reports noticing and using calorie information posted on fast food restaurant menus? *Appetite*.
- Brislin, R. W., 1970. Back-Translation for Cross-Cultural Research. *Journal of Cross-Cultural Psychology*, 1 (3), 185.
- Brom, F. W. A., 2000. Food, consumer concerns, and trust: food ethics for a globalizing market. *Journal of Agricultural & Environmental Ethics*, 12 (2), 127-139.
- Brown, P. R., 2008. Trusting in the New NHS: Instrumental versus communicative action. *Sociology of Health and Illness*, 30 (3), 349-363.
- Brunsting, S., de Best-Waldhober, M. and Terwel, B. W., 2013. 'I Reject your Reality and Substitute my Own!' Why More Knowledge about CO2 Storage Hardly Improves Public Attitudes. *Energy Procedia*, 37, 7419.
- Bryman, A., 2012. *Social research methods*. 4th ed. Oxford : Oxford University Press, 2012.
- Bugge, A. B., 2015. Why are alternative diets such as low carb high fat and super healthy so appealing to Norwegian food consumers? *Journal of Food Research*, 4 (3), 89-102.
- Bugge, A. B. and Lavik, R., 2010. Eating out a multifaceted activity in contemporary Norway. *Food, Culture and Society*, 13 (2), 215-240.
- Bulpitt, H. and Martin, P. J., 2010. Who am I and what am I doing? Becoming a qualitative research interviewer. *Nurse Researcher*, 17 (3), 7-16 10p.
- Busch, L., 2016. Individual choice and social values: Choice in the agrifood sector. *Journal of Consumer Culture*, 16 (1), 124-143.
- Buttriss, J. L., 2011. The Public Health White Paper and Responsibility Deal. *Nutrition Bulletin*, 36 (2), 248-253.
- Campos, S., Doxey, J. and Hammond, D., 2011. Nutrition labels on pre-packaged foods: a systematic review. *Public Health Nutrition*, 14 (8), 1496-1506.
- Capacci, S., Mazzocchi, M., Shankar, B., Brambila Macias, J., Verbeke, W., Pérez-Cueto, F. J. A., Koziół-Kozakowska, A., Piórecka, B., Niedzwiedzka, B., D'Addesa, D., Saba, A., Turrini, A., Aschemann-Witzel, J., Bech-Larsen, T., Strand, M., Smillie, L., Wills, J. and Traill, W. B., 2012. Policies to promote healthy eating in Europe: a structured review of policies and their effectiveness. *Nutrition Reviews*, 70 (3), 188-200.
- Carbone, E. T. and Zoellner, J. M., 2012. Nutrition and Health Literacy: A Systematic Review to Inform Nutrition Research and Practice. *Journal of the Academy of Nutrition & Dietetics*, 112 (2), 254-265.

- Carriquiry, M. and Babcock, B. A., 2007. Reputations, Market Structure, and the Choice of Quality Assurance Systems in the Food Industry. *American Journal of Agricultural Economics*, 89 (1), 12-23.
- Carter, S. M., 2015. The ethics of menu labelling. *Public Health Ethics*, 8 (1), 94-97.
- Casini, L. and Corsi, A. M., 2008. Wine market segmentation: an application of the Best:Worst Method and the Latent Class Analysis. / La segmentazione del mercato al consumo di vino: un'applicazione del metodo Best:Worst e dell'Analisi di Classi Latenti. *Rivista di Economia Agraria*, 63 (4), 483-516.
- Cavanagh, K. V., Kruja, B. and Forestell, C. A., 2014. The effect of brand and caloric information on flavor perception and food consumption in restrained and unrestrained eaters. *Appetite*, 82, 1-7.
- Celnik, D., Gillespie, L. and Lean, M. E. J., 2012. Time-scarcity, ready-meals, ill-health and the obesity epidemic. *Trends in Food Science & Technology*, 27 (1), 4-11.
- Chan, C., Kam, B., Coulthard, D., Pereira, S. and Button, P., 2013. Food product information: Trusted sources and delivery media (pp. 14p.): RMIT University.
- Chang, J. B. and Lusk, J. L., 2009. Fairness and food choice. *Food Policy*, 34 (6), 483-491.
- Chang, P.-L. and Chieng, M.-H., 2006. Building consumer–brand relationship: A cross-cultural experiential view. *Psychology & Marketing*, 23 (11), 927-959.
- Chathoth, P. K., Ungson, G. R., Altinay, L., Chan, E. S. W., Harrington, R. and Okumus, F., 2014. Barriers affecting organisational adoption of higher order customer engagement in tourism service interactions. *Tourism Management*, 42, 181-193.
- Chen, C., Kot, A. C. and Yang, H., 2013. A two-stage quality measure for mobile phone captured 2D barcode images. *Pattern Recognition*, 46, 2588-2598.
- Chen, W., 2013. The effects of different types of trust on consumer perceptions of food safety: An empirical study of consumers in Beijing Municipality, China. *Journal of Historical Research in Marketing*, 5 (1), 43.
- Chen, Y.-S. and Chang, C.-H., 2013. Greenwash and Green Trust: The Mediation Effects of Green Consumer Confusion and Green Perceived Risk. *Journal of Business Ethics*, 114 (3), 489-500.
- Cheng, K.-E., McHugh, J. and Deek, F., 2013. On the Use of Paired Comparisons to Construct Group Preference Scales for Decision Making. *Group Decision & Negotiation*, 22 (3), 519-540.
- Chrysochou, P., 2010. Food health branding: The role of marketing mix elements and public discourse in conveying a healthy brand image. *Journal of Marketing Communications*, 16 (1/2), 69-85.
- Chrysochou, P., Corsi, A. M. and Krystallis, A., 2012a. What drives Greek consumer preferences for cask wine? *British Food Journal*, 114 (8), 1072-1084.
- Chrysochou, P., Krystallis, A. and Giraud, G., 2012b. Quality assurance labels as drivers of customer loyalty in the case of traditional food products. *Food Quality & Preference*, 25 (2), 156-162.
- Chrzan, K. and Golovashkina, N., 2006. An empirical test of six stated importance measures. *International Journal of Market Research*, 48 (6), 717-740.
- Chu, Y. H., Jones, S. J., Frongillo, E. A., Thrasher, J. F. and DiPietro, R. B., 2014. Investigating the Impact of Menu Labeling on Revenue and Profit in a Foodservice Operation. *Journal of Foodservice Business Research*, 17 (3), 215-227.
- Cieślakiewicz, M., 2012. Labelling of sugar industry products in the light of requirements introduced by Regulation (EU) No 1169/2011 on the provision of food information to consumers. / Znakowanie wyrobów przemysłu cukrowniczego w świetle wymogów rozporządzenia (UE) nr 1169/2011 w sprawie przekazywania konsumentom informacji na temat żywności. *Gazeta Cukrownicza*, 120 (4), 140-143.
- Cohen, E., 2009. Applying best-worst scaling to wine marketing. *International Journal of Wine Business Research*, 21 (1), 8.

- Cohen, S. and Neira, L., 2003. Measuring preference for product benefits across countries: overcoming scale usage bias with maximum difference scaling, *ESOMAR Latin America. Uruguay*.
- Cooper, L., 2013. The top 100 most valuable global brands 2013. *Marketing Week (Online Edition)*, 47-47.
- Coveney, J., 2008. Food and trust in Australia: building a picture. *PUBLIC HEALTH NUTRITION*, 11 (3), 237-245.
- Coveney, J., Mamerow, L., Taylor, A., Henderson, J., Myer, S. and Ward, P., 2012. Comparative examination of trust during times of a food scandal in Europe and Australia. *Food and Public Health*, 2 (6), 202-212.
- Cowburn, G. and Stockley, L., 2005. Consumer understanding and use of nutrition labelling: a systematic review. *Public Health Nutrition*, 8 (1), 21-28.
- Cranage, D. A., Conklin, M. T. and Lambert, C. U., 2004. Effect of Nutrition Information in Perceptions of Food Quality, Consumption Behavior and Purchase Intentions. *Journal of Foodservice Business Research*, 7 (1), 43-61.
- Creswell, J. W., 2013. *Qualitative inquiry & research design : choosing among five approaches*. 3rd ed. London : SAGE.
- Creswell, J. W. and Plano Clark, V., 2010. *Designing and conducting mixed methods research*. London : SAGE, 2010.
- Cuite, C. L., Aquino, H. L. and Hallman, W. K., 2005. An empirical investigation of the role of knowledge in public opinion about GM food. *International Journal of Biotechnology*, 7 (1-3), 178-194.
- Cvetkovich, G., Siegrist, M., Murray, R. and Tragesser, S., 2002. New Information and Social Trust: Asymmetry and Perseverance of Attributions about Hazard Managers. *Risk Analysis: An International Journal*, 22 (2), 359-368.
- D'Elia, G., Alpigiani, I., Bonardi, S., Bacci, C., Lanzoni, E. and Brindani, F., 2011. Food labelling in Europe: mandatory "country of origin" extended to more foods. *Annali della Facoltà di Medicina Veterinaria, Università di Parma*, 31, 65-79.
- Darby, M. R. and Karni, E., 1973. Free Competition and the Optimal Amount of Fraud, 67.
- Davies, A. R., Fahy, F. and Rau, H., 2014. *Challenging consumption: Pathways to a more sustainable future*. UK: Taylor and Francis.
- Davies, M. B., 2007. *Doing a successful research project : using qualitative or quantitative methods / Martin Brett Davies*. Basingstoke : Palgrave Macmillan, 2007.
- Dawson, J., 2013. Retailer activity in shaping food choice. *FOOD QUALITY AND PREFERENCE*, 28 (1), 339-347.
- Daymon, C. and Holloway, I., 2011. *Qualitative research methods in public relations and marketing communications*. 2nd ed. London : Routledge, 2011.
- de Jonge, J., van Trijp, J. C. M., van der Lans, I. A., Frewer, L. J. and Renes, R. J., 2008. How trust in institutions and organizations builds general consumer confidence in the safety of food: A decomposition of effects. *Appetite*, 51 (2), 311-317.
- de Rezende, D. C. and Silva, M. A. R., 2014. Eating-out and experiential consumption: A typology of experience providers. *British Food Journal*, 116 (1), 91-103.
- Debbie, C., 2003. Pretesting Survey Instruments: An Overview of Cognitive Methods, 229.
- Defra, 2015. *The Food Statistics Pocketbook*. UK: Defra.
- Dellinger, A. B. and Leech, N. L., 2007. Toward a Unified Validation Framework in Mixed Methods Research. *JOURNAL OF MIXED METHODS RESEARCH*, 1 (4), 309-332.
- Denscombe, M., 2008. Communities of Practice: A Research Paradigm for the Mixed Methods Approach. *Journal of Mixed Methods Research*, 2 (3), 270-283.
- Denscombe, M., 2010. *The Good Research Guide : For Small-scale Social Research Projects*. Maidenhead, England: McGraw-Hill/Open University Press.

- Department of Health, 2005. Choosing a better diet : a food and health action plan: Department of Health, 2005.
- Deselnicu, O. C., 2013. *The value and role of food labels: Three essays examining information flows in the food system for experience and credence attributes*. ProQuest Information & Learning (74).
- Destatis, 2016. *Erwerbstaetigkeit steigt weiter an*. Berlin: Destatis. Available from: <https://www.destatis.de/DE/ZahlenFakten/GesamtwirtschaftUmwelt/Arbeitsmarkt/Erwerbstaetigkeit/Erwerbstaetigkeit.html> [Accessed 19 September 2016].
- Dospinescu, O. and Perca, M., 2011. TECHNOLOGICAL INTEGRATION FOR INCREASING THE CONTEXTUAL LEVEL OF INFORMATION. *Scientific Annals of the 'Alexandru Ioan Cuza' University of Iasi: Economic Sciences Series*, 571-581.
- Doub, A. E., Levin, A., Heath, C. E. and Le Vangie, K., 2015. Mobile app-etite: Consumer attitudes towards and use of mobile technology in the context of eating behaviour. *Journal of Direct, Data and Digital Marketing Practice*, 17 (2), 114-129.
- Dovaliene, A., Piligrimiene, Z. and Masiulyte, A., 2016. Factors Influencing Customer Engagement in Mobile Applications. *Engineering Economics*, 27 (2), 205-212.
- Doyle, L., Brady, A. M. and Byrne, G., 2009. An overview of mixed methods research. *Journal of Research in Nursing*, 14 (2), 175-185.
- Draper, A. and Swift, J. A., 2011. Qualitative research in nutrition and dietetics: data collection issues. *Journal of Human Nutrition & Dietetics*, 24 (1), 3-12.
- Dreezens, E., Martijn, C., Kok, G., Tenbült, P. and De Vries, N. K., 2005. Food and values: An examination of values underlying attitudes toward genetically modified- and organically grown food products. *Appetite*, 44 (1), 115-122.
- Drichoutis, A. C., Lazaridis, P. and Nayga Jr, R. M., 2005. Who is looking for nutritional food labels? *EuroChoices*, 4 (1), 18-23.
- Duffy, R., Fearn, A. and Healing, V., 2005. Reconnection in the UK food chain - Bridging the communication gap between food chain producers and consumers. *BRITISH FOOD JOURNAL*, 107 (1), 17-33.
- Eden, S., Bear, C. and Walker, G., 2008a. The sceptical consumer? Exploring views about food assurance. *Food Policy*, 33 (6), 624-630.
- Eden, S., Bear, C. and Walker, G., 2008b. Understanding and (Dis)trusting Food Assurance Schemes: Consumer Confidence and the "Knowledge Fix". *Journal of Rural Studies*, 24 (1), 1-14.
- Edwards, J. S. A., 2013. The foodservice industry: eating out is more than just a meal. *Food Quality and Preference*, 27 (2), 223-229.
- Elangeswaran, S. and Ragel, V. R., 2014. The Influence of Brand Association on Customer Preference: A Study on Branded Carbonated Soft Drinks. *IUP Journal of Brand Management*, 11 (2), 39.
- Ellison, B., Lusk, J. L. and Davis, D., 2013. Looking at the label and beyond: The effects of calorie labels, health consciousness, and demographics on caloric intake in restaurants. *International Journal of Behavioral Nutrition and Physical Activity*, 10.
- Emrich, T. E., Cohen, J. E., Lou, W. Y. and L'Abbé, M. R., 2013. Food products qualifying for and carrying front-of-pack symbols: a cross-sectional study examining a manufacturer led and a non-profit organization led program. *BMC Public Health*, 13 (1), 1-9.
- Ericksen, P. J., 2008. Conceptualizing food systems for global environmental change research. *Global Environmental Change Part A: Human & Policy Dimensions*, 18 (1), 234-245.
- Esbjerg, L., Burt, S., Pearse, H. and Glanz-Chanos, V., 2016. Retailers and technology-driven innovation in the food sector. *British Food Journal*, 118 (6), 1370.
- Eurest, 2015. *Vitalien: unsere Ernährungskonzepte* [online]. Germany: Compass Group. Available from: 1 October 2015].
- Eurofound, 2013. *Health and well-being at work: A report based on the fifth European Working Conditions Survey*. Belgium.

- European Commission, 2010. *Europe 2020: A European strategy for smart, sustainable and inclusive growth*. Brussels.
- European Union, 2011. Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers. *Official Journal of the European Union*, 304 (19), 46.
- Evans, B. C., Coon, D. W. and Ume, E., 2011. Use of theoretical frameworks as a pragmatic guide for mixed methods studies: A methodological necessity? *Journal of Mixed Methods Research*, 5 (4), 276-292.
- Fade, S. A. and Swift, J. A., 2011. Qualitative research in nutrition and dietetics: data analysis issues. *Journal of Human Nutrition & Dietetics*, 24 (2), 106-114.
- Feilzer, M. Y., 2010. Doing Mixed Methods Research Pragmatically: Implications for the Rediscovery of Pragmatism as a Research Paradigm. *Journal of Mixed Methods Research*, 4 (1), 6-16.
- Fereday, J. and Muir-Cochrane, E., 2006. Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. *International Journal of Qualitative Methods*, 5 (1), 1-11.
- Fernandes, T. and Esteves, F., 2016. Customer Engagement and Loyalty: A Comparative Study Between Service Contexts. *Services Marketing Quarterly*, 37 (2), 125-139.
- Fernqvist, F. and Ekelund, L., 2014. Credence and the effect on consumer liking of food - A review. *Food Quality and Preference*, 32 (PC), 340-353.
- Ferns, N., 2012. CATERING MARK SUPPLIER SCHEME LAUNCHED BY SOIL ASSOCIATION. *Caterer & Hotelkeeper*, 202 (4759), 58.
- Feunekes, G. I., Gortemaker, I. A., Willems, A. A. and Lion, R., 2008. Front-of-pack nutrition labelling: testing effectiveness of different nutrition labelling formats front-of-pack in four European countries. *Appetite*, 50 (1), 57-70.
- Finn, A. and Louviere, J. J., 1992. Determining the Appropriate Response to Evidence of Public Concern: The Case of Food Safety. *Journal of Public Policy & Marketing*, 11 (2), 12-25.
- Fischer, A. R. H. and Frewer, L. J., 2009. Consumer familiarity with foods and the perception of risks and benefits. *Food Quality and Preference*, 20, 576-585.
- Fischer, C., 2013. Trust and communication in European agri-food chains. *Supply Chain Management*, 18 (2), 208-218.
- Fitzgerald, S., Geaney, F., Kelly, C., McHugh, S. and Perry, I. J., 2016. Barriers to and facilitators of implementing complex workplace dietary interventions: process evaluation results of a cluster controlled trial. *BMC Health Services Research*, 16 (1), 139-139.
- Fleming, C. A., Miller, R. K. and Washington, K., 2008a. CHAPTER 8: QUICK-SERVICE & FAST-CASUAL CHAINS. Richard K. Miller & Associates, 69-72.
- Fleming, C. A., Miller, R. K. and Washington, K., 2008b. CHAPTER 8: QUICK-SERVICE & FAST-CASUAL CHAINS. Richard K. Miller. Associates, 69-72.
- Flick, U., 2008. *Managing Quality in Qualitative Research*. London: SAGE.
- Floridi, L., 2010. *Information : a very short introduction / Luciano Floridi*. Oxford : Oxford University Press, 2010.
- Flynn, T. N., Louviere, J. J., Peters, T. J. and Coast, J., 2008. Estimating preferences for a dermatology consultation using Best-Worst Scaling: comparison of various methods of analysis. *BMC Medical Research Methodology*, 8, 76-76.
- Flynn, T. N., Louviere, J. J., Peters, T. J. and Coast, J., 2010. Using discrete choice experiments to understand preferences for quality of life. Variance-scale heterogeneity matters. *Social Science & Medicine*, 70, 1957-1965.
- Fontana, A. and Frey, J. H., 2008. The interview: From neutral stance to political involvement. In: Denzin, N. K. and Lincoln, Y. S., eds. *Collecting and interpreting qualitative materials*. 3rd ed. California: SAGE. 115-159.
- Food Ethics Council, WWF UK and Sodexo UK and Ireland, 2016. *Catering for sustainability: Making the case for sustainable diets in foodservice*. UK.

- Food Standards Agency, 2010. Guidance notes and best practice on allergen and miscellaneous labelling provisions. UK: Food Standards Agency.
- Franchi, M., 2012. Food choice: beyond the chemical content. *International Journal of Food Sciences & Nutrition*, 63, 17-28.
- Francis, B., 2011. What is latent class analysis? California: SAGE.
- Frewer, L., Lassen, J., Kettlitz, B., Scholderer, J., Beekman, V. and Berdal, K. G., 2004. Societal aspects of genetically modified foods. *Food and Chemical Toxicology*, 42 (7), 1181-1193.
- Frewer, L. J., Howard, C., Hedderley, D. and Shepherd, R., 1998. Methodological approaches to assessing risk perceptions associated with food-related hazards. *Risk Analysis*, 18 (1), 95-102.
- Fritsche, J. and Holle, M., 2013. Lebensmittelverbraucherinformation: Gesetzgebung, Instrumente und Auswirkung auf das Markt- und Ernährungsverhalten: Food Science Summer School der Hochschule für Angewandte Wissenschaften (HAW) Hamburg, 03. – 04. Juli 2013. (German). *Journal fuer Verbraucherschutz und Lebensmittelsicherheit*, 8 (4), 321.
- Fritz, M. and Fischer, C., 2007. The role of trust in European food chains: Theory and empirical findings. *International Food and Agribusiness Management Review*, 10 (2), 141-161.
- FSAI, 2016. *Food Safety Authority of Ireland* [online]. Ireland: Food Safety Authority of Ireland. Available from: <http://www.fsai.ie/legislation.html> [Accessed 26 April 2016].
- Furlan, R. and Turner, G., 2014. Maximum difference scaling. *International Journal of Market Research*, 56 (3), 367-385.
- Galalae, C. and Voicu, A., 2011. Comparative Analysis of Emerging Green Certificate Markets from a Computable General Equilibrium Perspective. *Seria Management*, 14 (2), 7.
- Galletta, A., 2012. *Mastering the Semi-structured Interview and Beyond : From Research Design to Analysis and Publication*. New York: NYU Press.
- Gardner, C. and Sheppard, J., 1989. *Consuming passion : the rise of retail culture / Carl Gardner and Julie Sheppard*. London : Unwin Hyman.
- Garver, M. S., 2009. A maximum difference scaling application for customer satisfaction researchers. *International Journal of Market Research*, 51 (4), 481-500.
- Gawron, J. C. and Theuvsen, L., 2009. Certification schemes in the European agri-food sector. Overview and opportunities for Central and Eastern Europe. *Outlook on Agriculture*, 38 (1), 9-14.
- Geissler, G. L., 2010. Healthy Food at Work? An Examination of a Proposed Catering Service Concept. *Journal of Food Products Marketing*, 16 (4), 350-360.
- Gellynck, X., Verbeke, W. and Vermeire, B., 2006. Pathways to increase consumer trust in meat as a safe and wholesome food. *Meat Science*, 74 (1), 161-171.
- Genc, E., 2013. The impact of value orientations on the relative preference of environmental, functional and price attributes of products. *Değer eğilimlerinin ürünlerin çevresel, fonksiyonel ve fiyat özelliklerinin göreceli tercihlerindeki etkisi.*, 42 (2), 254-275.
- Germany Trade and Investment, 2016. The Food and Beverage Industry in Germany. Bonn: Gesellschaft fuer Aussenwirtschaft und Standortmarketing mbH.
- Gerrard, C., Smith, L., Padel, S., Janssen, M. and Hamm, U., 2013. UK consumer reactions to organic certification logos. *British Food Journal*, 115 (5), 727-742.
- Gibson, W. J. and Brown, A., 2009. *Working with qualitative data [electronic resource] / William J. Gibson and Andrew Brown*. London ; Thousand Oaks, Calif. : SAGE, 2009.
- Giddens, A., 1991. *The consequences of modernity*. 1st Edition edition. Cambridge: Polity Press.
- Giddens, A., 1994. Living in a post-traditional society. In: Beck, U., Giddens, A. and Lash, S., eds. *Reflexive Modernisations: Politics, Tradition and Aesthetics in the Modern Social Order*. Cambridge: Policy Press, 56-109.
- Goetzel, R. Z. and Ozminkowski, R. J., 2008. The health and cost benefits of work site health-promotion programs. *Annual Review of Public Health*, 29, 303-323.

- Goggins, G. and Rau, H., 2016. Beyond calorie counting: assessing the sustainability of food provided for public consumption. *Journal of Cleaner Production*, 112 (Part 1), 257-266.
- Gouveia, V. V., Milfont, T. L. and Guerra, V. M., 2014. The functional theory of human values: From intentional overlook to first acknowledgement—A reply to Schwartz (2014). *Personality & Individual Differences*, 68, 250-253.
- Goyal, A. and Singh, N. P., 2007. Consumer perception about fast food in India: An exploratory study. *British Food Journal*, 109 (2), 182-195.
- Gratzke, E., 2015. *Gesundheitsbezogenes Self Tracking mit Smart Devices. Hintergruende und Praxisbeispiele*. (Bachelor of Arts). Universitaet Augsburg.
- Gray, S., Means, R., Orme, J., Pitt, H., Jones, M. and Salmon, D., 2015. Improving Hospital Food: Evaluating the Impact of the Soil Association Food for Life Programme., *Public Health England Annual Conference*. University of Warwick: University of Warwick.
- Gregoire, M. B. and Spears, M. C., 2006. *Foodservice organizations : a managerial and systems approach / Mary B. Gregoire, Marian Spears*. 6th ed. Harlow : Prentice Hall.
- Gregory, C. A., Rahkovsky, I. and Anekwe, T. D., 2014. *Consumers' use of nutrition information when eating out / Christian A. Gregory ; Ilya Rahkovsky ; and Tobenna D. Anekwe*.
- Grunert, K. and Wills, J., 2007. A review of research on consumer response to nutrition information on food labels in Europe from 2003-2006. *ANNALS OF NUTRITION AND METABOLISM*, 51, 37-38.
- Grunert, K. G., Nureeva, L., Fernández-Celemín, L., Wills, J. M. and Bonsmann, S. S. G., 2010. Use and understanding of nutrition information on food labels in six European countries. *Journal of Public Health*, 18 (3), 261-277.
- Grönroos, C., 2007. *Service management and marketing : customer management in service competition*. 3rd ed. Chichester : John Wiley.
- Guba, E. G. and Lincoln, Y. S., 1998. Competitive Paradigms in Qualitative Research. In: Denzin, N. K. and Lincoln, Y. S., eds. *The Landscape of Qualitative Research: Theories and Issues*. California: SAGE, 195-220.
- Guba, E. G. and Lincoln, Y. S., 2008. Paradigmatic controversies, contradictions, and emerging confluences. In: Denzin, N. K. and Lincoln, Y. S., eds. *The landscape of qualitative research*. 3rd ed. California: SAGE, 255-286.
- Guthrie, J., Mancino, L. and Lin, C.-T. J., 2015. Nudging Consumers toward Better Food Choices: Policy Approaches to Changing Food Consumption Behaviors. *Psychology & Marketing*, 32 (5), 501-511.
- Hall, J. N., 2013. Pragmatism, Evidence, and Mixed Methods Evaluation. *New Directions for Evaluation*, 2013 (138), 15-26.
- Hall, T. S., 2014. THE QUANTIFIED SELF MOVEMENT: LEGAL CHALLENGES AND BENEFITS OF PERSONAL BIOMETRIC DATA TRACKING. *Akron Intellectual Property Journal*, 7 (1), 27-37.
- Han, J. and Lee, E., 2013. What personal values motivate green consumerism? Examining effects of altruistic, biospheric, and egoistic value orientations on individuals' behavioral intention toward green restaurants, *The Proceedings of 1st World Conference on Hospitality, Tourism and Event Research and International Convention and Expo Summit 2013, Bangkok, Thailand, 25th-28th May 2013* (pp. 483-491). Bangkok; Thailand: International Program in Hotel and Tourism Management, Siam University.
- Hancock, G. R. and Mueller, R. O., 2010. *The reviewer's guide to quantitative methods in the social sciences*. New York: Routledge.
- Hansen, J., Holm, L., Frewer, L., Robinson, P. and Sandoe, P., 2003. Beyond the knowledge deficit: recent research into lay and expert attitudes to food risks. *APPETITE*, 41 (2), 111-121.
- Harzing, A.-W., Baldueza, J., Barner-Rasmussen, W., Barzantny, C., Canabal, A., Davila, A., Espejo, A., Ferreira, R., Giroud, A., Koester, K., Liang, Y.-K., Mockaitis, A., Morley, M. J.,

- Myloni, B., Odusanya, J. O. T., O'Sullivan, S. L., Palaniappan, A. K., Prochno, P., Choudhury, S. R. and Saka-Helmhout, A., 2009. Rating versus ranking: What is the best way to reduce response and language bias in cross-national research? *International Business Review*, 18 (4), 417-432.
- Hassan, D. and Monier-Dilhan, S., 2006. National brands and store brands: Competition through public quality labels. *Agribusiness*, 22 (1), 21-30.
- Hatanaka, M. and Busch, L., 2008. Third-Party Certification in the Global Agrifood System: An Objective or Socially Mediated Governance Mechanism? *Sociologia Ruralis*, 48 (1), 73-91.
- Hawley, K. L., Roberto, C. A., Bragg, M. A., Liu, P. J., Schwartz, M. B. and Brownell, K. D., 2013. The science on front-of-package food labels. *Public Health Nutrition*, 16 (3), 430-439.
- Hebden, L., Cook, A., van der Ploeg, H. P. and Allman-Farinelli, M., 2012. Development of Smartphone Applications for Nutrition and Physical Activity Behavior Change. *Journal of Medical Internet Research*, 14 (4), 26.
- Hee-Sun, K., 2013. A Study on Personalized Information Service based on Smart Phone. *International Journal of Advancements in Computing Technology*, 5 (12), 470.
- Heimbürger, M. and Dietrich, P., 2012. Identifying the basis of collaboration performance in facility service business. *Facilities*, 30 (11/12), 504-516.
- Heinzelmann, U., 2008. *Food culture in Germany / Ursula Heinzelmann*. Westport: Greenwood Press.
- Helfert, M., Walshe, R. and Gurrin, C., 2013. The Impact of Information Quality on Quality of Life: An Information Quality Oriented Framework. *IEICE Transactions on Communications*, 96 (2), 404-409.
- Henderson, J., Coveney, J. and Ward, P., 2010. Who regulates food? Australians' perceptions of responsibility for food safety. *Australian Journal of Primary Health*, 16 (4), 344-351.
- Henderson, J., Coveney, J., Ward, P. R. and Taylor, A. W., 2011. Farmers are the most trusted part of the Australian food chain: results from a national survey of consumers. *Australian And New Zealand Journal Of Public Health*, 35 (4), 319-324.
- Henderson, J., Ward, P., Coveney, J. and Meyer, S., 2012. Trust in the Australian food supply: Innocent until proven guilty. *Health, Risk & Society*, 14 (3), 257-272.
- Herrmann, R. and Schröck, R., 2012. Unternehmerische Anreize zur Teilnahme an Labelling- und Qualitätssicherungsprogrammen auf heterogenen Lebensmittelmärkten. *Vierteljahrshefte zur Wirtschaftsforschung*, 81 (4), 123.
- Hersey, J. C., Wohlgenant, K. C., Arsenault, J. E., Kosa, K. M. and Muth, M. K., 2013. Effects of front-of-package and shelf nutrition labeling systems on consumers. *Nutrition Reviews*, 71 (1), 1-14.
- Hess, R., Visschers, V. H. M. and Siegrist, M., 2012. The role of health-related, motivational and sociodemographic aspects in predicting food label use: A comprehensive study. *Public Health Nutrition*, 15 (3), 407-414.
- Hingley, M. K., 2005. Power imbalanced relationships: Cases from UK fresh food supply. *International Journal of Retail and Distribution Management*, 33 (8), 551-569.
- Hjelmar, U., 2011. Consumers' purchase of organic food products. A matter of convenience and reflexive practices. *Appetite*, 56 (2), 336-344.
- Hodgkins, C., Barnett, J., Wasowicz-Kirylo, G., Stysko-Kunkowska, M., Gulcan, Y., Kustepeli, Y., Akgungor, S., Chryssochoidis, G., Fernández-Celemin, L., Storcksdieck genannt Bonsmann, S., Gibbs, M. and Raats, M., 2012. Understanding how consumers categorise nutritional labels: A consumer derived typology for front-of-pack nutrition labelling. *Appetite*, 59 (3), 806-817.
- Hoefkens, C., Lachat, C., Kolsteren, P., Van Camp, J. and Verbeke, W., 2011a. Posting point-of-purchase nutrition information in university canteens does not influence meal choice and nutrient intake. *The American Journal Of Clinical Nutrition*, 94 (2), 562-570.

- Hoefkens, C., Prakashan Chellattan, V., Guido Van, H., John Van, C. and Wim, V., 2012a. What nutrition label to use in a catering environment? A discrete choice experiment. *Food Policy*, 37, 741-750.
- Hoefkens, C., Van Camp, J., Pieniak, Z. and Verbeke, W., 2012b. Explaining the effects of a point-of-purchase nutrition-information intervention in university canteens: A structural equation modelling analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 9.
- Hoefkens, C., Verbeke, W. and Van Camp, J., 2011b. European consumers' perceived importance of qualifying and disqualifying nutrients in food choices. *Food Quality and Preference*, 22 (6), 550-558.
- Holle, M., 2013. Consumer model in change - Is the consumer today ripe for state care? / Verbraucherleitbild im Wandel - 1st der Verbraucher von heute reif für staatliche Betreuung? *Journal für Verbraucherschutz und Lebensmittelsicherheit*, 8 (4), 336-339.
- Hollebeek, L. D., Jaeger, S. R., Brodie, R. J. and Balemi, A., 2007. The influence of involvement on purchase intention for new world wine. *Food Quality & Preference*, 18 (8), 1033-1049.
- Hollywood, L. E., Armstrong, G. A. and Durkin, M. G., 2007. Using behavioural and motivational thinking in food segmentation. *International Journal of Retail and Distribution Management*, 35 (9), 691-702.
- Holm, L., 2003. Blaming the consumer: on the free choice of consumers and the decline in food quality in Denmark. *Critical Public Health*, 13 (2), 139-154.
- Hughner, R. S., McDonagh, P., Prothero, A., Shultz li, C. J. and Stanton, J., 2007. Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour*, 6 (2/3), 94-110.
- Hwang, J., Choi, Y. G., Lee, J. and Park, J., 2012. Customer Segmentation Based on Dining Preferences in Full-Service Restaurants. *Journal of Foodservice Business Research*, 15 (3), 226-246.
- Innes, B. G. and Hobbs, J. E., 2011. Does It Matter Who Verifies Production-Derived Quality? *Canadian Journal of Agricultural Economics*, 59 (1), 87-107.
- Irvine, A., 2011. Duration, Dominance and Depth in Telephone and Face-to-Face Interviews: A Comparative Exploration. *International Journal of Qualitative Methods*, 10 (3), 202-220.
- Ivankova, N. V., Creswell, J. W. and Stick, S. L., 2006. Using mixed-methods sequential explanatory design: From theory to practice. *Field Methods*, 18 (1), 3-20.
- Jaeger, S. R., Jørgensen, A. S., Aaslyng, M. D. and Bredie, W. L. P., 2008. Best-worst scaling: An introduction and initial comparison with monadic rating for preference elicitation with food products. *Food Quality and Preference*, 19, 579-588.
- Jahn, G., Schramm, M. and Spiller, A., 2005. The Reliability of Certification: Quality Labels as a Consumer Policy Tool. *Journal of Consumer Policy*, 28 (1), 53-73.
- Jalava, J., 2006. *Trust as a Decision: The Problems and Functions of Trust in Luhmannian Systems Theory*. University of Helsinki.
- Janssen, M. and Hamm, U., 2011. Consumer perception of different organic certification schemes in five European countries. *Organic Agriculture*, 1 (1), 31-43.
- Janssen, M. and Hamm, U., 2014. Governmental and private certification labels for organic food: Consumer attitudes and preferences in Germany. *Food Policy*, 49 (P2), 437-448.
- Johnson, R. B. and Onwuegbuzie, A. J., 2004. Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33 (7), 14-26.
- Johnston, J., Szabo, M. and Rodney, A., 2011. Good food, good people: Understanding the cultural repertoire of ethical eating. *Journal of Consumer Culture*, 11 (3), 293-318.
- Jokinen, P., Kupsala, S. and Vinnari, M., 2012. Consumer trust in animal farming practices - exploring the high trust of Finnish consumers. *International Journal of Consumer Studies*, 36 (1), 106-113.

- Jones, C. and Bonevac, D., 2013. An evolved definition of the term 'brand': Why branding has a branding problem. *Journal of Brand Strategy*, 2 (2), 112-120.
- Jooyoung, K. and Hye-Jin, P., 2009. Information Processing of Genetically Modified Food Messages Under Different Motives: An Adaptation of the Multiple-Motive Heuristic-Systematic Model. *Risk Analysis: An International Journal*, 29 (12), 1793-1806.
- Joubert, J. P. R. and Poalses, J., 2012. What's in a name? The effect of a brand name on consumers' evaluation of fresh milk. *International Journal of Consumer Studies*, 36 (4), 425-431.
- Jung, T. H., Ineson, E. M. and Green, E., 2013. Online social networking: Relationship marketing in UK hotels. *Journal of Marketing Management*, 29 (3-4), 393-420.
- Jørgensen, M. S., Arsky, G. H., Brandhøj, M., Nyberg, M., Roos, E. and Mikkelsen, B. E., 2010. Eating at worksites in Nordic countries: national experiences and policy initiatives. *International Journal of Workplace Health Management*, 3 (3), 197.
- Kahn-Marshall, J. L. and Gallant, M. P., 2012. Making Healthy Behaviors the Easy Choice for Employees: A Review of the Literature on Environmental and Policy Changes in Worksite Health Promotion. *Health Education & Behavior*, 39 (6), 752-776.
- Kalnikaite, V., Bird, J. and Rogers, Y., 2012. Decision-making in the aisles: informing, overwhelming or nudging supermarket shoppers? *Personal and Ubiquitous Computing*, 1-13.
- Kamphuis, C. B. M., de Bekker-Grob, E. W. and van Lenthe, F. J., 2015. Factors affecting food choices of older adults from high and low socioeconomic groups: a discrete choice experiment. *American Journal of Clinical Nutrition*, 101 (4), 768-774.
- Karch, I., 2014. Frontcooking: Volle Transparenz am Herd.
- Kardorff, E. v., Steinke, I. and Flick, U., 2004. *A Companion to Qualitative Research* [Book]. London: Sage Publications.
- Kazi, A. M. and Khalid, W., 2012. Questionnaire designing and validation. *Journal of the Pakistan Medical Association*, 62 (5), 514-516.
- Keller, K. L., 2013. *Strategic brand management : building, measuring, and managing brand equity*. 4th ed. Boston: Pearson.
- Keller, K. L., Kuilema, L. G., Lee, N., Yoon, J., Mascaro, B., Combes, A. L., Deutsch, B., Sorte, K. and Halford, J. C. G., 2012. The impact of food branding on children's eating behavior and obesity. *Physiology and Behavior*, 106 (3), 379-386.
- Keogh, K. and Osborne, K., 2014. Join our campaign to make workplace meals healthier. *Nursing Standard*, 29 (3), 14-15.
- Kjærnes, U., 2012. Ethics and Action: A Relational Perspective on Consumer Choice in the European Politics of Food. *Journal of Agricultural & Environmental Ethics*, 25 (2), 145-162.
- Kjærnes, U., Harvey, M. and Warde, A., 2007. *Trust in food : a comparative and institutional analysis / Unni Kjærnes, Mark Harvey and Alan Warde*. Basingstoke: Palgrave Macmillan, 2007.
- Klaus, G. G., 2005. Food quality and safety: consumer perception and demand. *European Review of Agricultural Economics*, 32 (3), 369-391.
- Knight, J., Holdsworth, D. and Mather, D., 2007. Determinants of trust in imported food products: Perceptions of European gatekeepers. *British Food Journal*, 109 (10), 792-804.
- Korthals, M., 2001. Taking consumers seriously: two concepts of consumer sovereignty. *Journal of Agricultural & Environmental Ethics*, 14 (2), 201-215.
- Kotler, P., 1997. *Marketing Management*. 9 edition. NJ: Prentice Hall.
- Krieger, J. W., Saelens, B. E., Ta, M. L., Solet, D., Fleming, D. W. and Chan, N. L., 2013. Menu labeling regulations and calories purchased at chain restaurants. *American Journal of Preventive Medicine*, 44 (6), 595-604.

- Krystallis, A., Fotopoulos, C. and Zotos, Y., 2006. Organic Consumers' Profile and Their Willingness to Pay (WTP) for Selected Organic Food Products in Greece. *Journal of International Consumer Marketing*, 19 (1), 81-106.
- Kvale, S., 2007. *Doing interviews*. Thousand Oaks, CA: Sage Publications Ltd.
- L'Abbe, M., Schermel, A., Minaker, L., Kelly, B., Lee, A., Vandevijvere, S., Twohig, P., Barquera, S., Friel, S., Hawkes, C., Kumanyika, S., Lobstein, T., Ma, J., Macmullan, J., Mohan, S., Monteiro, C., Neal, B., Rayner, M., Sacks, G., Sanders, D., Snowdon, W., Swinburn, B. and Walker, C., 2013. Monitoring foods and beverages provided and sold in public sector settings. *OBESITY REVIEWS*, 14, 96-107.
- Lachat, C., 2011. Eating out as a lifestyle driver of dietary intake: situation and policy options: Ghent University. Faculty of Bioscience Engineering 2011.
- Lachat, C., Kolsteren, P., Naska, A., Trichopoulou, A., Engeset, D., Fairgrieve, A. and Marques, H. A., 2011. Essential actions for caterers to promote healthy eating out among European consumers: Results from a participatory stakeholder analysis in the HECTOR project. *Public Health Nutrition*, 14 (2), 193-202.
- Lachat, C., Nago, E., Verstraeten, R., Roberfroid, D., Van Camp, J. and Kolsteren, P., 2012. Eating out of home and its association with dietary intake: a systematic review of the evidence. *Obesity Reviews: An Official Journal Of The International Association For The Study Of Obesity*, 13 (4), 329-346.
- Laforet, S., 2011. Brand names on packaging and their impact on purchase preference. *Journal of Consumer Behaviour*, 10 (1), 18-30.
- Lagerkvist, C. J., Okello, J. and Karanja, N., 2012. Anchored vs. relative best-worst scaling and latent class vs. hierarchical Bayesian analysis of best-worst choice data: Investigating the importance of food quality attributes in a developing country. *Food Quality and Preference*, 25, 29-40.
- Lang, J. T., 2013. Elements of public trust in the American food system: Experts, organizations, and genetically modified food. *Food Policy*, 41, 145-154.
- Lang, T., 2003. Food Industrialisation and Food Power: Implications for Food Governance. *Development Policy Review*, 21 (5/6), 555.
- Lassoued, R. and Hobbs, J. E., 2015. Consumer confidence in credence attributes: the role of brand trust. *Food Policy*, 52, 99-107.
- Lee, J. A., Soutar, G. and Louviere, J., 2008. The Best-Worst Scaling Approach: An Alternative to Schwartz's Values Survey. *Journal of Personality Assessment*, 90 (4), 335-347.
- Legewie, N., 2013. An Introduction to Applied Data Analysis with Qualitative Comparative Analysis (QCA). *Forum: Qualitative Social Research*, 14 (3).
- Levy, A. S. and Fein, S. B., 1998. Consumers' ability to perform tasks using nutrition labels. *Journal of Nutrition Education and Behavior*, 30 (4), 210-217.
- Lewitt, T., 2016. Tesco's fictional farms: a marketing strategy past its sell-by date? *The Guardian*. Available from: <http://www.theguardian.com/lifeandstyle/wordofmouth/2016/mar/22/tesco-fictional-farms-a-marketing-strategy-past-its-sell-by-date> [Accessed 23 June 2016].
- Lim, E. A. C. and Ang, S. H., 2008. Hedonic vs. utilitarian consumption: A cross-cultural perspective based on cultural conditioning. *Journal of Business Research*, 61 (3), 225-232.
- Lincoln, Y. S. and Guba, E. G., 1985. *Naturalistic inquiry*. London : Sage.
- Lipovetsky, S. and Conklin, M., 2014. Best-Worst Scaling in analytical closed-form solution. *Journal of Choice Modelling*, 10, 60-68.
- Liu, P. J., Roberto, C. A., Brownell, K. D. and Liu, L. J., 2012. A test of different menu labeling presentations. *Appetite*, 59 (3), 770-777.
- Lockshin, L. and Cohen, E., 2011. Using product and retail choice attributes for cross-national segmentation. *European Journal of Marketing*, 45 (7/8), 1236.
- Loose, S. M., 2012. Der Preis als Kaufbarriere? Eine Analyse der Preisbereitschaft für gesunde Lebensmittel. *Angewandtes Gesundheitsmarketing*, 209.

- Loose, S. M. and Lockshin, L., 2013. Testing the robustness of best worst scaling for cross-national segmentation with different numbers of choice sets. *Food Quality and Preference*, 27 (2), 230-242.
- Louviere, J., Flynn, T., Lings, I., Islam, T. and Gudergan, S., 2013. An introduction to the application of (case 1) best-worst scaling in marketing research. *International Journal of Research in Marketing*, 30 (3), 292-303.
- Louviere, J. J. and Flynn, T. N., 2010. Using best-worst scaling choice experiments to measure public perceptions and preferences for healthcare reform in Australia. *Patient*, 3 (4), 275-283.
- Louviere, J. J., Street, D., Burgess, L., Wasi, N., Islam, T. and Marley, A. A. J., 2008. Modeling the choices of individual decision-makers by combining efficient choice experiment designs with extra preference information. *Journal of Choice Modelling*, 1, 128-164.
- Lowe, B., de Souza-Monteiro, D. M. and Fraser, I., 2013. Nutritional labelling information: Utilisation of new technologies. *Journal of Marketing Management*, 29 (11/12), 1337-1366.
- Lowe, B., Fraser, I. and Souza-Monteiro, D. M., 2015a. A Change for the Better? Digital Health Technologies and Changing Food Consumption Behaviors. *Psychology & Marketing*, 32 (5), 585-600.
- Luhmann, N., 1979. *Trust and Power: two works*. Chichester: Wiley.
- Luhmann, N., 2000. Familiarity, Confidence, Trust: Problems and Alternatives. In: Gambetta, D. *Trust: Making and Breaking Cooperative Relations*. Oxford: Blackwell, 94-107.
- Lusk, J. L., 2011. External validity of the food values scale. *Food Quality and Preference*, 22 (5), 452-462.
- Lusk, J. L. and Briggeman, B. C., 2009. Food Values. *American Journal of Agricultural Economics*, 91 (1), 184-196.
- Lusk, J. L. and Marette, S., 2012. Can Labeling and Information Policies Harm Consumers? *Journal of Agricultural & Food Industrial Organization*, 10 (1), -1.
- Lyerly, J. E. and Reeve, C. L., 2015. Research report: Development and validation of a measure of food choice values. *Appetite*, 89, 47-55.
- Maack, K., Haves, J., Homann, B. and Schmid, K., 2013. *Die Zukunft des Gastgewerbes-Beschäftigungsperspektiven im deutschen Gastgewerbe*. Deutschland.
- Machín, L., Giménez, A., Vidal, L. and Ares, G., 2014. Influence of context on motives underlying food choice. *Journal of Sensory Studies*, 29 (5), 313-324.
- Mackenbach, J. D., Rutter, H., Compennolle, S., Glonti, K., Oppert, J. M., Charreire, H., De Bourdeaudhuij, I., Brug, J., Nijpels, G. and Lakerveld, J., 2014. Obesogenic environments: A systematic review of the association between the physical environment and adult weight status, the SPOTLIGHT project. *Acta Veterinaria Scandinavica*, 233.
- MacKenzie, H. B., van Teijlingen, E. and Pitchforth, E., 2014. Advocating mixed-methods approaches in health research. *Nepal Journal of Epidemiology*, 4 (5), 417-422.
- Mackison, D., Mooney, J., Macleod, M. and Anderson, A. S., 2016. Lessons learnt from a feasibility study on price incentivised healthy eating promotions in workplace catering establishments. *Journal of Human Nutrition and Dietetics*, 29 (1), 86-94.
- Mackison, D., Wrieden, W. L. and Anderson, A. S., 2009. Making an informed choice in the catering environment: what do consumers want to know? *Journal of Human Nutrition & Dietetics*, 22 (6), 567-573.
- MacMillan, K., Money, K., Money, A. and Downing, S., 2005. Relationship marketing in the not-for-profit sector: an extension and application of the commitment-trust theory. *Journal of Business Research*, 58, 806-818.
- Mah, C. L., Vanderlinden, L., Mamatis, D., Ansara, D. L., Levy, J. and Swimmer, L., 2013. Ready for policy? Stakeholder attitudes toward menu labelling in Toronto, Canada. *Canadian Journal Of Public Health = Revue Canadienne De Santé Publique*, 104 (3), e229-e234.

- Mai, J.-E., 2013. The quality and qualities of information. *Journal of the American Society for Information Science & Technology*, 64 (4), 675-688.
- Mai, R. and Hoffmann, S., 2012. Taste lovers versus nutrition fact seekers: how health consciousness and self-efficacy determine the way consumers choose food products. *Journal of Consumer Behaviour*, 11 (4), 316-328.
- Mai, R. and Hoffmann, S., 2015. How to Combat the Unhealthy = Tasty Intuition: The Influencing Role of Health Consciousness. *Journal of Public Policy & Marketing*, 34 (1), 63-83.
- Malam, S., Clegg, S. and Kirwin, S., 2009. Comprehension and use of UK nutrition signpost labelling schemes. United Kingdom: Food Standards Agency (FSA), Food Standards Agency (FSA).
- Manning, L., Baines, R. N. and Chadd, S. A., 2006. Quality assurance models in the food supply chain. *British Food Journal*, 108 (2/3), 91-104.
- Manski, C. F., 2001. Daniel McFadden and the Econometric Analysis of Discrete Choice. *Scandinavian Journal of Economics*, 103 (2).
- Marley, A. A. J. and Louviere, J. J., 2005. Some probabilistic models of best, worst, and best-worst choices. *Journal of Mathematical Psychology*, 49 (6), 464-480.
- Marsden, T., 2014. *Sustainable food systems: building a new paradigm*. London ; New York : Routledge, 2014.
- Mattevi, M. and Jones, J. A., 2016. Food Supply Chain. *British Food Journal*, 118 (5), 21.
- Mays, N. and Pope, C., 2000. Assessing quality in qualitative research. *BMJ: British Medical Journal (International Edition)*, 320 (7226), 50.
- Mazurkiewicz-Pizo, A. and Pachuca-Smulska, B., 2012. Access to information as a determinant of the consumer behavior at the food market. *Acta Scientiarum Polonorum - Oeconomia*, 11 (4), 35-46.
- McFadden, D., 1980. Econometric Models for Probabilistic Choice among Products. *The Business Journal*, 53 (3), 17.
- Mean, A. and Watson, M., 2013. Cooking up Consumer Anxieties about "Provenance" and "Ethics" WHY IT SOMETIMES MATTERS WHERE FOODS COME FROM IN DOMESTIC PROVISIONING. *Food, Culture & Society*, 16 (3), 495-512.
- Meijnders, A., Midden, C., Olofsson, A., Öhman, S., Matthes, J., Bondarenko, O., Gutteling, J. and Rusanen, M., 2009. The role of similarity cues in the development of trust in sources of information about GM food. *Risk Analysis*, 29 (8), 1116-1128.
- Menozi, D., Halawany-Darson, R., Mora, C. and Giraud, G., 2015. Motives towards traceable food choice: A comparison between French and Italian consumers. *Food Control*, 49, 40-48.
- Meuwissen, M. P. M., Velthuis, A. G. J., Hogeveen, H. and Huirne, R. B. M., 2003. Traceability and certification in meat supply chains. *Journal of Agribusiness*, 21 (2), 167-181.
- Meyer, S., Ward, P., Coveney, J. and Rogers, W., 2008. Trust in the health system: an analysis and extension of the social theories of Giddens and Luhmann. *Health Sociology Review*, 17 (2), 177-186.
- Meyer, S. B., Mamerow, L., Henderson, J., Taylor, A. W., Coveney, J. and Ward, P. R., 2014. The importance of food issues in society: Results from a national survey in Australia. *Nutrition & Dietetics*, 71 (2), 108-116.
- Michels, P., 2012. Lebensmittelqualitaet aus Verbrauchersicht. *Lebenslanges Lernen in der beruflichen Bildung*, Trierdorf. Hochschule Weihenstephan.
- Miele, M. and Bock, B., 2007. Special Issue: Competing discourses of farm animal welfare and agri-food restructuring. In Miele, M. and Bock, B. (Eds.), *International Journal of Sociology of Agriculture and Food* (Vol. 15, pp. 128-128). Toronto; Canada: Research Committee on Sociology of Agriculture and Food.
- Mikkelsen, B. E., 2011. Images of foodscapes: Introduction to foodscape studies and their application in the study of healthy eating out-of-home environments. *Perspectives in Public Health*, 131 (5), 209-216.

- Mikkola, M., 2009. Shaping professional identity for sustainability. Evidence in Finnish public catering. *APPETITE*, 53 (1), 56-65.
- Miller, L. M. S., 2014. Quantitative information processing of nutrition facts panels. *British Food Journal*, 116 (7), 1205-1219.
- Mintel, 2013. *Consumer Trust in Food - UK - June 2013*. UK: Mintel
- Mintel, 2015a. *Eating Out: The Decision Making Process - UK - July 2015*. UK: Mintel.
- Mintel, 2015b. *Eating Out: The Digital Consumer - UK - April 2015*. UK: Mintel.
- Mintel, 2016a. *Attitudes towards Healthy Eating - UK - February 2016*. UK: Mintel.
- Mintel, 2016b. *Menu Flavours*. UK: Mintel
- Mirosa, M. and Lawson, R., 2012. Revealing the lifestyles of local food consumers. *BRITISH FOOD JOURNAL*, 114 (6-7), 816-825.
- Misztal, B. A., 1996. *Trust in modern societies : the search for the bases of social order / Barbara A. Misztal*. Cambridge: Blackwell Publishers.
- Morgan, D. L., 2007. Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research*, 1 (1), 48-76.
- Morgan, D. L. and Scannell, A. U., 1998. *Planning focus groups / David L. Morgan with Alice U. Scannell* [Non-fiction]. Thousand Oaks, Calif. ; London : SAGE, c1998.
- Morgan, K. and Sonnino, R., 2008. The Western Mail: Theory of fresh local produce in school raises problem of procurement. *The Western Mail*. Available from: <http://search.ebscohost.com/login.aspx?direct=true&db=edsnbk&AN=1243FCEDD208C2A0&site=eds-live&scope=site> [Accessed 23 February 2014].
- Morgan, R. M. and Hunt, S. D., 1994. The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58 (3), 20.
- Morley, B., Scully, M., Niven, P., Dixon, H., Wakefield, M. and Martin, J., 2013. What types of nutrition menu labelling lead consumers to select less energy-dense fast food? An experimental study. *Appetite*, 67, 8-15.
- Morse, J. D., 2003. Principles of Mixed Methods and Multimethod Research Design. In: Tashakkori, A. and Teddlie, C., eds. *Handbook of Mixed Methods in Social & Behavioural Research*. USA: SAGE Publications, 189-208.
- Moser, R., Raffaelli, R. and Thilmany-McFadden, D., 2011. Consumer Preferences for Fruit and Vegetables with Credence-Based Attributes: A Review. *International Food & Agribusiness Management Review*, 14 (2), 121-141.
- Myung-Ja, K., Choong-Ki, L., Woo Gon, K. and Joung-Man, K., 2013. Relationships between lifestyle of health and sustainability and healthy food choices for seniors. *International Journal of Contemporary Hospitality Management*, 25 (4), 558-576.
- Möser, A., Hoefkens, C., Verbeke, W. and van Camp, J., 2010. Simplified nutrient labelling: Consumers' perceptions in Germany and Belgium. *Journal fur Verbraucherschutz und Lebensmittelsicherheit*, 5 (2), 169-180.
- Nelson, P., 1970. Information and Consumer Behavior, 311.
- NHS, 2014. *Soil Association - Hospital food and the Catering Mark*. UK: NHS. Available from: <http://www.nhsustainabilityday.co.uk/wp-content/uploads/2013/11/Soil-Association-Hospital-Food-and-the-Catering-Mark.pdf> [Accessed 21 June 2016].
- Ni Mhurchu, C., Aston, L. M. and Jebb, S. A., 2010. Effects of worksite health promotion interventions on employee diets: a systematic review. *BMC Public Health*, 10, 62-62.
- Nie, C. and Zepeda, L., 2011. Lifestyle segmentation of US food shoppers to examine organic and local food consumption. *Appetite*, 56 (3), 28-37.
- Nistor, L., 2012. Attitudes towards GM food in Romania. a moral question? *Revista Romana de Bioetica*, 10 (2), 131-144.
- Nocella, G., Romano, D. and Stefani, G., 2014. Consumers' attitudes, trust and willingness to pay for food information. *International Journal of Consumer Studies*.
- Northern, J. R., 2000. Quality attributes and quality cues: effective communication in the UK meat supply chain. *British Food Journal*, 102 (3), 230-245.

- Novick, G., 2008. Is there a bias against telephone interviews in qualitative research? *Research in Nursing & Health*, 31 (4), 391-398.
- Nuttavuthisit, K. and Thøgersen, J., 2015. The Importance of Consumer Trust for the Emergence of a Market for Green Products: The Case of Organic Food. *Journal of Business Ethics*, 15p.
- Nyberg, M. and Olsen, T. D., 2010. Meals at work: Integrating social and architectural aspects. *International Journal of Workplace Health Management*, 3 (3), 222-232.
- Nyilasy, G., Lei, J., Nagpal, A. and Tan, J., 2016. Colour correct: the interactive effects of food label nutrition colouring schemes and food category healthiness on health perceptions. *Public Health Nutrition*, 1-6.
- Office for National Statistics, 2016. *Employment and employee types*. UK: Office for National Statistics. Available from: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes> [Accessed 19 September 2016].
- Ojinnaka, D., 2007. Diversity in the UK: The Food Perspective. *International Journal of Diversity in Organisations, Communities & Nations*, 7 (3), 121-129.
- Onwuegbuzie, A. and Leech, N. L., 2005. On Becoming a Pragmatic Researcher: The Importance of Combining Quantitative and Qualitative Research Methodologies. *International Journal of Social Research Methodology*, 8 (5), 375-387.
- Orfanos, P., Naska, A., Trichopoulou, A., Grioni, S., Boer, J. M. A., van Bakel, M. M. E., Ericson, U., Rohrmann, S., Boeing, H., Rodríguez, L., Ardanaz, E., Sacerdote, C., Giurdanella, M. C., Niekerk, E. M., Peeters, P. H. M., Manjer, J., van Guelpen, B., Deharveng, G., Skeie, G., Engeset, D., Halkjaer, J., Jensen, A. M., McTaggart, A., Crowe, F., Stratigakou, V., Oikonomou, E., Touvier, M., Niravong, M., Riboli, E., Bingham, S. and Slimani, N., 2009. Eating out of home: energy, macro- and micronutrient intakes in 10 European countries. The European Prospective Investigation into Cancer and Nutrition. *European Journal Of Clinical Nutrition*, 63 Suppl 4, S239-S262.
- Orme, B., 2009. MaxDiff Analysis: Simple Counting, Individual-Level Logit, and HB. *Sawtooth Software Research Paper Series* [online]. Available from: <http://www.sawtoothsoftware.com/> [Accessed 27 March 2015].
- Oude Ophuis, P. A. M. and Van Trijp, H. C. M., 1995. Perceived quality: A market driven and consumer oriented approach. *Food Quality and Preference*, 6 (3), 177-183.
- Paasovaara, R., Luomala, H. T., Pohjanheimo, T. and Sandell, M., 2012. Understanding consumers' brand-induced food taste perception: A comparison of 'brand familiarity' - and 'consumer value - brand symbolism (in)congruity' - accounts. *Journal of Consumer Behaviour*, 11 (1), 11-20.
- Panjwani, C. and Caraher, M., 2014. The Public Health Responsibility Deal: Brokering a deal for public health, but on whose terms? *Health Policy*, 114 (2-3), 163-173.
- Papadopoulos, A., Sargeant, J. M., Majowicz, S. E., Sheldrick, B., McKeen, C., Wilson, J. and Dewey, C. E., 2012. Enhancing public trust in the food safety regulatory system. *Health Policy*, 107 (1), 98-103.
- Pearson, C. and Hussain, Z., 2015. Smartphone use, addiction, narcissism, and personality: A mixed methods investigation. *International Journal of Cyber Behavior, Psychology and Learning*, 5 (1), 17-32.
- Peck, F., Mulvey, G., K, J. and J, J., 2012. Business Perceptions of Regulatory Burden: Centre for Regional Economic Development, University of Cumbria, 2012.
- Pelletier, J. E., Laska, M. N., Neumark-Sztainer, D. and Story, M., 2013. Positive attitudes toward organic, local, and sustainable foods are associated with higher dietary quality among young adults. *Journal of the Academy of Nutrition and Dietetics*, 113 (1), 127-132.
- Peri, C., 2006. The universe of food quality. *Food Quality and Preference*, 17 (1-2), 3-8.

- Pet, E., Petroman, I. M., Moisa, S., Nistor, E., Banu, C., Ivascu, G., Borzas, A. and Dragoescu, P., 2010. LABELLING AND BRANDING FOOD PRODUCTS. *ETICHETAREA ŞI MARCAREA PRODUSELOR ALIMENTARE.*, 12 (2), 1-6.
- Pettigrew, S., Pescud, M. and Donovan, R. J., 2012. Traffic light food labelling in schools and beyond. *Health Education Journal*, 71 (6), 746-753.
- Phillipov, M., 2015. 'Helping Australia Grow': supermarkets, television cooking shows, and the strategic manufacture of consumer trust. *Agriculture and Human Values*, 10p.
- Pilnick, A. and Swift, J. A., 2011. Qualitative research in nutrition and dietetics: assessing quality. *Journal of Human Nutrition & Dietetics*, 24 (3), 209-214.
- Poortinga, W. and Pidgeon, N. F., 2004. Trust, the Asymmetry Principle, and the Role of Prior Beliefs. *Risk Analysis: An International Journal*, 24 (6), 1475-1486.
- Poppe, C. and Kjaernes, U., 2003. *Trust in Food in Europe: A Comparative Analysis*.
- Premanandh, J., 2013. Horse meat scandal - a wake-up call for regulatory authorities. *Food Control*, 34 (2), 568-569.
- Pridgeon, A. and Whitehead, K., 2013. A qualitative study to investigate the drivers and barriers to healthy eating in two public sector workplaces. *Journal of Human Nutrition and Dietetics*, 26 (1), 85-95.
- Priilaid, D. and Hall, D., 2016. Price-quality heuristic correlation with rates of product consumption. *British Food Journal*, 118 (3), 541-559.
- Putnam, R. D., Leonardi, R. and Nanetti, R., 1993. *Making democracy work : civic traditions in modern Italy / Robert D. Putnam with Robert Leonardi and Raffaella Y. Nanetti*. Princeton: Princeton University Press.
- Pérez Rodrigo, C., 2013. Current mapping of obesity. *MAPPING DE LA OBESIDAD ACTUAL.*, 28, 21-31.
- Quintiliani, L., Poulsen, S. and Sorensen, G., 2010. Healthy Eating Strategies in the Workplace. *International Journal Of Workplace Health Management*, 3 (3), 182-196.
- Rampl, L. V., Eberhardt, T., Schütte, R. and Kenning, P., 2012. Consumer trust in food retailers: conceptual framework and empirical evidence. *International Journal of Retail & Distribution Management*, 40 (4), 254-272.
- Rashid, T., 2003. Relationship marketing: case studies of personal experiences of eating out. *British Food Journal*, 105 (10/11), 742-750.
- Raulio, S., Roos, E. and Prättälä, R., 2010. School and workplace meals promote healthy food habits. *Public Health Nutrition*, 13 (6A), 987-992.
- Rayner, M. and Scarborough, P., 2005. The burden of food related ill health in the UK. *Journal Of Epidemiology And Community Health*, 59 (12), 1054-1057.
- Rindskopf, D., 2009. Latent Class Analysis. In: Millsap, R. E. and Mayedeu-Olivares, A., eds. *The SAGE Handbook of Quantitative Methods in Psychology*. London: SAGE, 199-216.
- Rokeach, M., 1973. *The nature of human values*. London : Collier-Macmillan.
- Roseman, M. G., Hoon Kim, Y. and Zhang, Y., 2013a. A Study of Consumers' Intention to Purchase Ethnic Food When Eating at Restaurants. *Journal of Foodservice Business Research*, 16 (3), 298-312.
- Roseman, M. G., Mathe-Soulek, K. and Higgins, J. A., 2013b. Relationships among grocery nutrition label users and consumers' attitudes and behavior toward restaurant menu labeling. *Appetite*, 71, 274-278.
- Rothman, R. L., Housam, R., Weiss, H., Davis, D., Gregory, R., Gebretsadik, T., Shintani, A. and Elasy, T. A., 2006. Patient understanding of food labels - The role of literacy and numeracy. *AMERICAN JOURNAL OF PREVENTIVE MEDICINE*, 31 (5), 391-398.
- Rothstein, B., 2000. Trust, social dilemmas and collective memories. *Journal of Theoretical Politics*, 12 (4), 477-501.
- Rothstein, H., 2013. Domesticating participation: participation and the institutional rationalities of science-based policy-making in the UK food standards agency. *Journal of Risk Research*, 16 (6), 771-790.

- Rousseau, D. M., Sitkin, S. B., Burt, R. S. and Camerer, C., 1998. NOT SO DIFFERENT AFTER ALL: A CROSS-DISCIPLINE VIEW OF TRUST. *Academy of Management Review*, 23 (3), 393-404.
- Russell, J. A., 1991. Culture and the categorization of emotions. *Psychological Bulletin*, 110 (3), 426-450.
- Ruta, E., Garrod, G. and Scarpa, R., 2008. Valuing animal genetic resources: a choice modelling application to indigenous cattle in Kenya: 2008-12-14T22:30:39Z.
- Ruževičius, J. and Gedminaitė, A., 2007. Business Information Quality and its Assessment. *Verslo informacijos kokybė ir jos vertinimas.*, 52 (2), 18-25.
- Saelens, B. E., Nelson, Y., Colburn, T. A., Krieger, J., Bruemmer, B., Chan, N. L., Ta, M. L., Boles, M. and Glanz, K., 2012. Nutrition-labeling regulation impacts on restaurant environments. *American Journal of Preventive Medicine*, 43 (5), 505-511.
- Saldaña, J., 2012. *The coding manual for qualitative researchers / Johnny Saldaña*. 2nd ed. London: SAGE, 2012.
- Salvatore, A. and Sassatelli, R., 2004. *Trust and Food. A Theoretical Discussion*. Bologna.
- Samson, A., 2010. Product usage and firm-generated word of mouth. *International Journal of Market Research*, 52 (4), 459-482.
- Sandelowski, M., 1993. Rigor or rigor mortis: the problem of rigor in qualitative research revisited. *ANS. Advances In Nursing Science*, 16 (2), 1-8.
- Sanz-Valero, J., Álvarez Sabucedo, L. M., Wanden-Berghe, C. and Santos Gago, J. M., 2015. QR Codes: Outlook for Food Science and Nutrition. *Critical Reviews In Food Science And Nutrition*.
- Sarantakos, S., 2013. *Social research*. 4th ed. Basingstoke : Palgrave Macmillan, 2013.
- Sasmita, J. and Suki, N. M., 2015. Young consumers' insights on brand equity. *International Journal of Retail & Distribution Management*, 43 (3), 276-292.
- Schiefer, G., Reiche, R. and Deiters, J., 2013. Transparency in food networks - where to go. *International Journal on Food System Dynamics*, 4 (4), 283-293.
- Scholderer, J. and Frewer, L. J., 2003. The Biotechnology Communication Paradox: Experimental Evidence and the Need for a New Strategy. *Journal of Consumer Policy*, 26 (2), 125-157.
- Scholl, A., 2003. *Die Befragung: sozialwissenschaftliche Methode und kommunikationswissenschaftliche Anwendung*. Germany: UVK Verlagsgesellschaft.
- Schuetz, V., Lehnert, S. and Nuessel, M., 2014. Key terms and major developments. In: Petersen, B., Nuessel, M. and Hamer, M., eds. *Quality and Risk Management in Agri-Food Chains*. Netherlands: Wageningen Academic Publishers, 23-43.
- Schwab, D. P., 2005. *Research methods for organizational studies*. 2nd ed. N.J. : L. Erlbaum Associates, 2005.
- Schwartz, S. H., 1992. *Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries*. Vol. 25.
- Seigfried, C. H., 1996. *Pragmatism and feminism : reweaving the social fabric / Charlene Haddock Seigfried*. Chicago : University of Chicago Press.
- Skarmeas, D., Zeriti, A. and Baltas, G., 2016. Relationship Value: Drivers and Outcomes in International Marketing Channels. *Journal of International Marketing*, 24 (1), 22-40.
- Slattery, E. L., Voelker, C. C. J., Nussenbaum, B., Rich, J. T., Paniello, R. C. and Neely, J. G., 2011. A Practical Guide to Surveys and Questionnaires. *OTOLARYNGOLOGY-HEAD AND NECK SURGERY*, 144 (6), 831-837.
- Slovic, P., 1993. Perceived risk, trust, and democracy. *Risk Analysis*, 13 (6), 675-682.
- SmartAPPetite, 2015. *SmartAPPetite: Buy Local, Eat Smart, Get Healthy* [online]. Canada: Available from: <http://www.smartappetite.ca/> [Accessed 23 June 2016].

- Sodexo, 2009. *Sodexo's Vitality now on the menu at 500 sites across Europe* [online]. Paris: Sodexo. Available from: <http://www.sodexo.com/en/media/press-releases/vitality.aspx> [Accessed 1 October 2015].
- SoilAssociation, 2012. *Food for Life Catering Mark Manual Version 1.2: Fresh food you can trust*. [online]. UK: Available from: <http://www.sacert.org/catering/standards> [Accessed September].
- SoilAssociation, 2014. *One million meals: hitting the Mark for freshness, sustainability and freshness*. [online]. UK: Available from: <http://www.sacert.org/catering/newsandfeatures/articleid/7574/one-million-meals-hitting-the-mark-for-freshness-sustainability-and-quality> [Accessed 1st October 2015].
- Soliah, L. L. S., Walter, J. M. and Jones, S. A., 2012. Benefits and Barriers to Healthful Eating: What Are the Consequences of Decreased Food Preparation Ability? *American Journal of Lifestyle Medicine*, 6 (2), 152-158.
- Souden, N., Abdelaziz, F. B. and Fauconnier, A., 2013. Nutrition labelling: Employing consumer segmentation to enhance usefulness. *Journal of Brand Management*, 20 (4), 267-282.
- Stebner, S., Ray, J., Becker, J. and Baker, L. M., 2015. Totally Transparent: A Qualitative Study About the Impact of Farm Tours on Bloggers. *Journal of Applied Communications*, 99 (4), 48-61.
- Stern, P. C., 2000. Toward a Coherent Theory of Environmentally Significant Behavior. *Journal of Social Issues*, 56 (3), 407-424.
- Stern, P. C., Dietz, T. and Kalof, L., 1993. Value orientations, gender, and environmental concern. *Environment and Behavior*, 25 (3), 322-348.
- Stewart-Knox, B., Robinson, J., Rankin, A., Orr, K., Duffy, M., Kuznesof, S., Frewer, L. J., Póinhos, R., de Almeida, M. D. V., Macready, A., Gallagher, C., Berezowska, A., Fischer, A. R. H., Navas-Carretero, S., Riemer, M., Traczyk, I., Gjelstad, I. M. F. and Mavrogianni, C., 2013. Factors influencing European consumer uptake of personalised nutrition. Results of a qualitative analysis. *Appetite*, 66, 67-74.
- Stewart-Knox, B. J., 2014. Eating and stress at work: the need for public health promotion intervention and an opportunity for food product development? *Trends in Food Science & Technology*, 35 (1), 52-60.
- Stranieri, S., Baldi, L. and Banterle, A., 2010. Do nutrition claims matter to consumers? An empirical analysis considering European requirements. *Journal of Agricultural Economics*, 61 (1), 15-33.
- Street, D. J., Burgess, L. and Louviere, J. J., 2005. Quick and easy choice sets: Constructing optimal and nearly optimal stated choice experiments. *International Journal of Research in Marketing*, 22 (4), 459-470.
- Sue, V. M. and Ritter, L. A., 2007. *Conducting Online Surveys* [Book]. Los Angeles: SAGE Publications, Inc.
- Sunstein, C. R., 2013. *Simpler: The future of government*. New York, NY, US: Simon & Schuster.
- Svederberg, E., Gustafsson, J.-E., Reuterswärd, A. L. and Svensson, L., 2008. Influence of Previous Experiences on Consumers' Reading and Use of Nutritional Information on Food Packages. A Questionnaire Study Involving Structural Equation Modeling. *Journal of Culinary Science & Technology*, 6 (2/3), 192-205.
- Swift, J. A. and Tischler, V., 2010. Qualitative research in nutrition and dietetics: getting started J. A. Swift and V. Tischler Getting started in qualitative research. *Journal of Human Nutrition & Dietetics*, 23 (6), 559-566.
- Sörqvist, P., Langeborg, L. and Marsh, J. E., 2016. Social desirability does not underpin the eco-label effect on product judgments. *Food Quality and Preference*, 50, 82-87.
- Tarjan, L., Senk, I., Tegeltija, S., Stankovski, S. and Ostojic, G., 2014. A readability analysis for QR code application in a traceability system. *COMPUTERS AND ELECTRONICS IN AGRICULTURE*, 109, 1-11.

- Tashakkori, A. and Teddlie, C., 2010. Putting the human back in "human research methodology": The researcher in mixed methods research. *Journal of Mixed Methods Research*, 4 (4), 271-277.
- Taylor, A. W., Coveney, J., Ward, P. R., Henderson, J., Meyer, S. B., Pilkington, R. and Gill, T. K., 2012. Fruit and vegetable consumption - the influence of aspects associated with trust in food and safety and quality of food. *Public Health Nutrition*, 15 (2), 208-217.
- Taylor, A. W., Pilkington, R., Montgomerie, A. and Feist, H., 2016. The role of business size in assessing the uptake of health promoting workplace initiatives in Australia. *BMC Public Health*, 16 (353), 8.
- Taylor, B., Sinha, G. and Ghoshal, T., 2006. *Research Methodology: A Guide for Researchers in Management and Social Sciences*. 1st Edition edition. New Delhi: Prentice Hall.
- Teddlie, C. and Tashakkori, A., 2009. *Foundations of mixed methods research : integrating quantitative and qualitative approaches in the social and behavioral sciences / Charles Teddlie, Abbas Tashakkori*. Los Angeles: SAGE.
- Then, K. L., Rankin, J. A. and Ali, E., 2014. Focus Group Research: What Is It and How Can It Be Used? *Canadian Journal of Cardiovascular Nursing*, 24 (1), 16-22.
- Thøgersen, J., Jørgensen, A. K. and Sandager, S., 2012a. Consumer Decision Making Regarding a "Green" Everyday Product. *PSYCHOLOGY & MARKETING*, 29 (4), 187-197.
- Thomas, E. L., Puig Ribera, A., Senye-Mir, A. and Eves, F. F., 2016. Research Article: Promoting Healthy Choices in Workplace Cafeterias: A Qualitative Study. *Journal of Nutrition Education and Behavior*, 48, 138-145.
- Thompson, K.E., Engelken, J. and Huntley, K., 2004. Mapping the values driving organic food choice: Germany vs UK. *European Journal of Marketing*, 38 (8), 995-1012.
- Thornton, P. K., 2010. Livestock production: recent trends, future prospects. *Philosophical Transactions Of The Royal Society Of London. Series B, Biological Sciences*, 365 (1554), 2853-2867.
- Thorsøe, M. H., 2015. Maintaining Trust and Credibility in a Continuously Evolving Organic Food System. *Journal of Agricultural and Environmental Ethics*, 28 (4), 767-787.
- Tietzel, M. and Weber, M., 1991. Von Betrugern, Blendern und Opportunisten. *Zeitschrift fuer Wirtschaftspolitik*, 40, 26.
- Till, B. D., Baack, D. and Waterman, B., 2011. Strategic brand association maps: developing brand insight. *Journal of Product & Brand Management*, 20 (2), 92-100.
- Toler, S., Briggeman, B. C., Lusk, J. L. and Adams, D. C., 2009. Fairness, Farmers Markets, and Local Production. *American Journal of Agricultural Economics*, 91 (5), 1272-1278.
- Tonkin, E., Wilson, A. M., Coveney, J., Webb, T. and Meyer, S. B., 2015. Trust in and through labelling – a systematic review and critique. *British Food Journal*, 117 (1), 318-338.
- Trekner, L. L., Rooney, B., Viswanath, K., Baxter, J., Elmer, P., Finnegan, J. R., Graves, K., Hertog, J., Mullis, R., Pirie, P. and Potter, J., 1990. Development of a scale using nutrition attitudes for audience segmentation. *Health Education Research*, 5 (4), 479-487.
- Trogdon, J., Finkelstein, E. A., Reyes, M. and Dietz, W. H., 2009. A return-on-investment simulation model of workplace obesity interventions. *Journal of Occupational and Environmental Medicine*, 51 (7), 751-758.
- Truninger, M., 2013. The plural bases of trusting organic food: from certification to the "caterpillar test". *Ambiente & Sociedade*, 16 (2), 81-102.
- Tulloch, J. and Lupton, D., 2002. Consuming risk, consuming science: The case of GM foods. *Journal of Consumer Culture*, 2 (3), 363-383.
- Ungku Fatimah, U. Z. A., Boo, H. C., Sambasivan, M. and Salleh, R., 2011. Foodservice hygiene factors-The consumer perspective. *International Journal of Hospitality Management*, 30 (1), 38-45.
- Unilever, 2011. Unilever World Report. Geneva: Unilever.
- Unland, P. A., 2013. Food companies challenge of the implementation of the Food Information Regulation (EU) No. 1169/2011. *Journal für Verbraucherschutz und Lebensmittelsicherheit*, 8 (4), 340-340.

- Uzunoglu, E. and Misci Kip, S., 2014. Brand communication through digital influencers: Leveraging blogger engagement. *International Journal of Information Management*, 34, 592-602.
- Vaask, S. and Pitsi, T., 2010. Potential to promote healthy eating in Baltic workplaces. *International Journal of Workplace Health Management*, 3 (3), 211-221.
- Vaismoradi, M., Turunen, H. and Bondas, T., 2013. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15 (3), 398-405.
- Valdivieso-López, E., Flores-Mateo, G., Molina-Gómez, J.-D., Rey-Reñones, C., Barrera Uriarte, M.-L., Duch, J. and Valverde, A., 2013. Efficacy of a mobile application for smoking cessation in young people: study protocol for a clustered, randomized trial. *BMC Public Health*, 13, 704-704.
- van de Brug, F. J., Lucas Luijckx, N. B., Cnossen, H. J. and Houben, G. F., 2014. Early signals for emerging food safety risks: From past cases to future identification. *Food Control*, 39, 75-86.
- Van Der Merwe, D., Bosman, M., De Beer, H., Mielmann, A. and Ellis, S., 2013. Consumers' knowledge of food label information: An exploratory investigation in Potchefstroom, South Africa. *Public Health Nutrition*, 16 (3), 403-408.
- van der Meulen, B. and Bremmers, H., 2013. Strategic responses of business operators to food information obligations. *JOURNAL FÜR VERBRAUCHERSCHUTZ UND LEBENSMITTELSICHERHEIT-JOURNAL OF CONSUMER PROTECTION AND FOOD SAFETY*, 8 (4), 357-360.
- Van Herpen, E., Seiss, E. and Van Trijp, H. C. M., 2012. The role of familiarity in front-of-pack label evaluation and use: A comparison between the United Kingdom and The Netherlands. *Food Quality and Preference*, 26 (1), 22-34.
- van Herpen, E. and van Trijp, H. C. M., 2011. Front-of-pack nutrition labels. Their effect on attention and choices when consumers have varying goals and time constraints. *APPETITE*, 57 (1), 148-160.
- Van Osselaer, S. M. J. and Janiszewski, C., 2001. Two Ways of Learning Brand Associations. *Journal of Consumer Research*, 28 (2), 202-223.
- Van Rijswijk, W. and Frewer, L. J., 2012. Consumer needs and requirements for food and ingredient traceability information. *International Journal of Consumer Studies*, 36 (3), 282-290.
- van Teijlingen, E. and Pitchforth, E., 2006. Focus group research in family planning and reproductive health care. *The Journal Of Family Planning And Reproductive Health Care / Faculty Of Family Planning & Reproductive Health Care, Royal College Of Obstetricians & Gynaecologists*, 32 (1), 30-32.
- van Teijlingen, E. R. and Hundley, V., 2001. The importance of pilot studies. *Social Research Update*, (35), 1-1.
- Vandelanotte, C., Müller, A. M., Short, C. E., Hingle, M., Nathan, N., Williams, S. L., Lopez, M. L., Parekh, S. and Maher, C. A., 2016. Report: Past, Present, and Future of eHealth and mHealth Research to Improve Physical Activity and Dietary Behaviors. *Journal of Nutrition Education and Behavior*, 48, 219-228.
- Vanderlee, L., Vine, M. M., Fenton, N. E. and Hammond, D., 2016. Stakeholder Perspectives on Implementing Menu Labeling in a Cafeteria Setting. *American Journal of Health Behavior*, 40 (3), 371-380.
- Vaqué, L. G., 2013. The new European regulation on food labelling: are we ready for the "D" day on 13 December 2014? *European Food and Feed Law Review*, (3), 158-167.
- Verain, M. C. D., Antonides, G. and Sijtsema, S. J., 2016. Consumer segmentation based on food-category attribute importance: The relation with healthiness and sustainability perceptions. *Food Quality and Preference*, 48, 99-106.
- Verbeke, W., 2005. Agriculture and the food industry in the information age. *European Review of Agricultural Economics*, 32 (3), 347-368.

- Verbeke, W., 2008. Impact of communication on consumers' food choices. *Proceedings of the Nutrition Society*, 67 (3), 281-288.
- Verbeke, W., Frewer, L. J., Scholderer, J. and De Brabander, H. F., 2007. Why consumers behave as they do with respect to food safety and risk information. *Analytica Chimica Acta*, 586 (1-2 SPEC. ISS.), 2-7.
- Verbeke, W. and Ward, R. W., 2001. A fresh meat almost ideal demand system incorporating negative TV press and advertising impact. *Agricultural Economics*, 25 (2/3), 359.
- Verbeke, W. and Ward, R. W., 2006. Consumer interest in information cues denoting quality, traceability and origin: An application of ordered probit models to beef labels. *Food Quality and Preference*, 17 (6), 453-467.
- Vermeir, I. and Verbeke, W., 2006. SUSTAINABLE FOOD CONSUMPTION: EXPLORING THE CONSUMER "ATTITUDE - BEHAVIORAL INTENTION" GAP. *Journal of Agricultural & Environmental Ethics*, 19 (2), 169-194.
- Vermeir, I. and Verbeke, W., 2008. ANALYSIS: Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64, 542-553.
- Vermeulen, B., Vandebroek, M. and Goos, P., 2010. Obtaining more information from conjoint experiments by best-worst choices. *Computational Statistics and Data Analysis*, 54 (6), 1426-1433.
- Vermunt, J. K. and Magidson, J., 2005. Factor Analysis With Categorical Indicators: A Comparison Between Traditional and Latent Class Approaches. In: van der Ark, L. A., Croon, M. A. and Sijtsma, K., eds. *New developments in categorical data analysis for the social and behavioral sciences*. N.J.: Lawrence Erlbaum Associates Publishers, 41-62.
- Vidgen, H. A. and Gallegos, D., 2014. Defining food literacy and its components. *Appetite*, 76, 50-59.
- Visit Isle of Man, 2014. *A quality assured guide to eating out in the Isle of Man 2014-15*. [online]. UK: Available from: http://issuu.com/visitisleofman/docs/taste_final_proof_from_b_h_59060_pr [Accessed 2 May 2015].
- VisitScotland, 2015. *Scottish Food and Drink provide recipe for success* [online]. UK: VisitScotland. Available from: http://www.visitscotland.org/media_centre/recipe_for_success.aspx [Accessed 2 May 2015].
- Vogl, S., 2013. Telephone Versus Face-to-Face Interviews: Mode Effect on Semistructured Interviews with Children. *Sociological Methodology*, 43 (1), 133-177.
- Vranešević, T. and Stančec, R., 2003. The effect of the brand on perceived quality of food products. *British Food Journal*, 105 (10/11), 811-825.
- Vyth, E. L., Steenhuis, I. H. M., Roodenburg, A. J. C., Brug, J., Heymans, M. W. and Seidell, J. C., 2011. Influence of Placement of a Nutrition Logo on Cafeteria Menu Items on Lunchtime Food Choices at Dutch Work Sites. *Journal of the American Dietetic Association*, 111 (1), 131-136.
- Walsh, G. and Mitchell, V.-W., 2010. The effect of consumer confusion proneness on word of mouth, trust, and customer satisfaction. *European Journal of Marketing*, 44 (6), 838-859.
- Waltz, C. L., 2011. *Local Food Systems: Background and Issues*. New York: Nova Science Publishers.
- Wang, R. W. and Strong, D. M., 1996. Beyond Accuracy: What Data Quality Means to Data Consumers. *Journal of Management Information Systems*, 12 (4), 5-33.
- Ward, M. K. and Pond, S. B., III, 2015. Using virtual presence and survey instructions to minimize careless responding on internet-based surveys. *Computers in Human Behavior*, 48, 554-568.
- Watson, R., 2013. Managing allergens from a food retailer perspective including an update on allergen labelling regulation. *Nutrition Bulletin*, 38 (4), 405-409.

- Watson, W. L., Chapman, K., Hughes, C., King, L., Kelly, B., Louie, J. C. Y., Gill, T. P. and Crawford, J., 2013. How well do Australian shoppers understand energy terms on food labels? *Public Health Nutrition*, 16 (3), 409-417.
- Westenhoefer, J., 2013. Influencing eating behavior through food labeling? *Journal für Verbraucherschutz und Lebensmittelsicherheit*, 8 (4), 327-329.
- Wilden, R., Gudergan, S. and Lings, I., 2010. Employer branding: strategic implications for staff recruitment. *Journal of Marketing Management*, 26 (1/2), 56-73.
- Willig, C., 2013. *Introducing qualitative research in psychology*. 3rd ed. Maidenhead: Open University Press, 2013.
- Wills, J., Chrichton, N., Lorenc, A. and Kelly, M., 2015. Using population segmentation to inform local obesity strategy in England. *Health Promotion Internation*, 30 (3), 658-666.
- Wilson, A., Coveney, J., Henderson, J., Meyer, S., Calnan, M., Caraher, M., Webb, T., Elliott, A. and Ward, P., 2013. Trust makers, breakers and brokers: building trust in the Australian food system. *BMC Public Health*, 13 (1), 1-7.
- Wognum, P. M., Bremmers, H., Trienekens, J. H., Van Der Vorst, J. G. A. J. and Bloemhof, J. M., 2011. Systems for sustainability and transparency of food supply chains - Current status and challenges. *Advanced Engineering Informatics*, 25 (1), 65-76.
- World Health Organisation, 1986. *The Ottawa Charter for Health Promotion* [online]. Geneva: World Health Organisation. Available from: <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/> [Accessed 3 March 2014].
- World Health Organisation, 2004. *The Workplace: A priority setting for health promotion, Workplace Health Promotion*. Geneva: WHO.
- Worsley, A. and Scott, V., 2000. "Exploratory studies of consumers' concerns about food and health in Australia and New Zealand". *Asia Pacific Journal of Clinical Nutrition* [online], 9, 24-32.
- Worsley, A., Wang, W. C. and Hunter, W., 2013. Gender differences in the influence of food safety and health concerns on dietary and physical activity habits. *Food Policy*, 41, 184-192.
- Wynne, B., 1995. Public Understanding of Science. In: Jasanoff, S., Markle, G. E., Petersen, J. C. and Pinch, T., eds. *Handbook of Science and Technology Studies*. London: Sage, 361-388.
- Xue, H., Mainville, D., You, W. and Nayga, R. M., 2010. Consumer preferences and willingness to pay for grass-fed beef: Empirical evidence from in-store experiments. *Food Quality and Preference*, 21 (7), 857-866.
- Yamoah, F. A. and Yawson, D. E., 2014. Assessing Supermarket Food Shopper Reaction to Horsemeat Scandal in the UK. *International Review of Management and Marketing*, 4 (2), 19.
- Yao, E., Tamaki, K., Ishii, R., O'Mahony, M., Lim, J. and Kim, K. O., 2003. Structured and unstructured 9-point hedonic scales: A cross cultural study with American, Japanese and Korean consumers. *Journal of Sensory Studies*, 18 (2), 115-139.
- Zakowska-Biemans, S., 2011. Polish consumer food choices and beliefs about organic food. *British Food Journal*, 113 (1), 122-137.
- Zhao, Z. and Balagué, C., 2015. Designing branded mobile apps: Fundamentals and recommendations. *Business Horizons*, 58 (3), 305-315.
- Zwetsloot, G. I. J. M., Van Scheppingen, A. R., Dijkman, A. J., Heinrich, J. and Den Besten, H., 2010. The organizational benefits of investing in workplace health. *International Journal of Workplace Health Management*, 3 (2), 143-159.
- Šenk, I., Ostojić, G., Tarjan, L., Stankovski, S. and Lazarević, M., 2013. *Food product traceability by using automated identification technologies*. Vol. 394. Springer New York LLC.