

Research report

# The convenience food market in Great Britain: Convenience food lifestyle (CFL) segments

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## Abstract

Convenience foods enable the consumer to save time and effort in food activities, related to shopping, meal preparation and cooking, consumption and post-meal activities. The objective of this paper is to report on the attitudes and reported behaviour of food consumers in Great Britain based on a review of their convenience food lifestyle (CFLs). The paper also reports the development and application of a segmentation technique that can supply information on consumer attitudes towards convenience foods. The convenience food market in Great Britain is examined and the key drivers of growth in this market are highlighted. A survey was applied to a nationally representative sample of 1000 consumers (defined as the persons primarily responsible for food shopping and cooking in the household) in Great Britain in 2002. Segmentation analysis, based on the identification of 20 convenience lifestyle factors, identified four CFL segments of consumers: the 'food connoisseurs' (26%), the 'home meal preparers' (25%), the 'kitchen evaders' (16%) and the 'convenience-seeking grazers' (33%). In particular, the 'kitchen evaders' and the 'convenience-seeking grazers' are identified as convenience-seeking segments. Implications for food producers, in particular, convenience food manufacturers are discussed. The study provides an understanding of the lifestyles of food consumers in Great Britain, and provides food manufacturers with an insight into what motivates individuals to purchase convenience foods.

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## Introduction

The lifestyles of today's society are very different to that of 20 or even 10 years ago. Technological advancements, changing household structures, multicultural societies as well as changing social norms and values have resulted in shifting demand for all types of consumer goods. Food has not been excluded from this evolution. In fact, the set of attributes now demanded from any food product is extensive. Understanding demand and who is demanding what is not as simple as examining demographic characteristics; rather one has to examine lifestyles and what is driving changing lifestyles. The increased demand for convenience foods illustrates the impact of changing lifestyles on demand. Convenience-related quality is linked

to more than just the time spent in the kitchen—it covers time and effort (mental and physical) spent purchasing, storing, preparing and consuming food.

The British market is a particularly important destination for Irish food exports. The UK convenience market is currently valued at £24.9bn, an increase of 4% on 2005. The UK convenience sector is forecast to reach a market value of between 27.3 and £33.9bn by the end of 2011 (IGD, 2006). Exports from the Irish prepared consumer foods sector were valued at €1800m in 2002 (Bord Bia, 2003). About 75% of the exports by value from Ireland are to the UK (Prepared Consumer Foods Group, 2002). Furthermore, an industry survey of companies engaged in the manufacture of convenience foods highlighted Britain as a preferred market for this research (O' Sullivan & Cowan, 2001). Given that convenience foods account for a large part of consumer grocery expenditure in Great Britain and the importance of the market to the Irish food

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industry, it is important to have an understanding of what motivates the British consumer to demand convenience foods. The objective of this study is thus to identify and profile convenience food lifestyle (CFL) segments of food consumers in Great Britain.

Defining convenience is not easy; a number of authors have identified components of convenience. Much research that has been conducted on the concept of convenience has considered the time element. Thus, time and saving time while engaging in food-related activities has been discussed in light of the time pressures experienced by many British consumers (Berry, 1979; Candel & Meulenberg, 1994, in Candel, 2001). However, it was recognised by authors such as Gofton and Marshall (1988) that convenience involves more than the quality of time-saving in food-related activities. Man and Fullerton (1990) concentrated on the physical and mental effort associated with food-specific activities. Kaufman and Lane (1996) proposed that the allocation of such resources as time and energy varies according to the individual's own preferences and abilities, "trading off less-valued resources for those they want to conserve" (p. 10). Brown and McEnally (1993) suggested that it is important to consider convenience at all stages in the process of food consumption and to determine the proportionate importance that consumers attach to time and energy use in acquisition, consumption and disposal. Darian and Cohen (1995) added the elements of consumption decision-making, preparation and clearing up to the three aforementioned scales. Thus, convenience is relevant in the context of all food-related activities, as recognised in the following definition of convenience (IGD, 2002, p.1):

Convenience is associated with reducing the input required from consumers in either food shopping, preparation, cooking or cleaning after the meal.

Therefore, convenience is defined in terms of the time, physical energy and mental effort savings offered to the consumer in food-related activities. Thus, for the purposes of this research, the extent to which an individual is convenience-oriented will be used as a measure of the extent to which the consumer is likely to seek time and energy (both physical and mental) savings in relation to his/her food-related activities.

### *Theoretical framework*

The theoretical framework underlying the analysis for the identification of the CFL segments is now outlined. Gutman (1982) introduced the theory of means-end chain (MEC) to marketing and consumer research. His thinking was motivated by research from Rokeach (1973) and Yankelovich (1981), who showed that values guide people's behaviour in all aspects of their lives. Gutman postulated the MEC theory as a method of understanding consumers' subconscious networks related to consumption behaviour. The MEC theory approach is considered to be

able to identify the choice criteria used by consumers to evaluate and select among alternative products or services and explain the higher-order reasons leading to the prominence of these particular criteria (Olson & Reynolds, 2001). The main assumption of MEC theory is that people do not buy products for the products' sake, but rather for the benefits that their consumption can provide. This assumption was supported by De Boer and McCarthy (2003), who highlighted the value of MEC theory in gaining an understanding of the motivational cognitive networks associated with the purchase and consumption of convenience foods. The MEC theory approach was exemplified in Grunert, Brunsø, and Bisp (1993) food application approach (1993), when they developed an analytical method based on food-related lifestyles. A similar approach was undertaken by Shim, Gehrt, and Lotz (2001) in the development of a fruit-specific lifestyle segmentation method.

If we are to examine convenience orientation we have to do so in the broader context of the role of food in a person's life and thus an examination of food lifestyles. Attitudes to convenience effect convenience-related behaviour, and are in turn directly dependant on consumers' involvement with food and consumers' perceived household resources (Brunso, Fjord, & Grunert, 2002). Thus, other food-related lifestyle factors influence demand for convenience food. Food-related lifestyle research has been spearheaded by The Centre for Research on Consumer Relations in the Food Sector (MAPP), Denmark. Brunsø, Grunert, and Bredahl (1996) were the first to consider the set of factors that make up food lifestyles. They argue that a food lifestyle is made up of a set of declarative and procedural characteristics, which reflect the values of the individuals while also giving an indication of the types of attributes they may seek when selecting food items. It is suggested that these characteristics will provide an understanding of the 'food shopping basket' of individuals. Identification of different groups of consumers and understanding their motivations enables food companies to develop more focused marketing strategies including their product development and communication strategies. Food lifestyle characteristics include: ways of shopping, cooking methods, quality aspects, consumption situation and purchasing motives. Further details on food-related lifestyle are presented elsewhere (Brunso et al., 1996; Grunert et al., 1993). Clearly any investigation into CFLs will have to consider these food lifestyle characteristics.

### *Convenience lifestyles: what do we know and what we need to know*

The challenge in the development of the CFL method of segmentation was to develop a set of measures, which would incorporate all the elements of convenience and the forces driving the demand for convenience and convenience food in the context of the food market. As mentioned earlier, convenience was considered to be composed of

three components—time, physical energy and mental energy. The consideration of this makeup of the convenience concept was derived based on the work of a number of authors (e.g. Brown & McEnally, 1993; Darian & Cohen, 1995). The work of Goody (cited in Gofton, 1995) was considered here. Food activities (planning, shopping, meal preparation, consumption and clearing up) were reviewed to identify where convenience was important in the context of the food-provisioning cycle. The food-provisioning process follows each of the stages from shelf to stomach (Marshall, 1995). The food-related lifestyle instrument was examined to identify associated convenience measures inherent in this lifestyle segmentation procedure. The convenience food market was analysed to ascertain the forces driving the demand for convenience and convenience food. Work undertaken by Ryan, Cowan, McCarthy, and O' Sullivan (2002) and De Boer, McCarthy, Cowan, and Ryan (2004) played a role in deciding which FRL dimensions and statements were relevant in the context of this study. Ryan et al. (2002) identified three FRL segments in the Republic of Ireland that were convenience oriented: the hedonistic, the extremely uninvolved and adventurous consumer segments. De Boer et al. (2004) compared higher frequency users of convenience foods with lower frequency users in relation to their food-related lifestyles, attitudes towards convenience and beliefs about convenience foods and subsequently identified the FRL dimensions and convenience measures that had an effect on the decision to purchase convenience foods. A set of factors, both procedural and declarative, were identified as being important in determining the level of demand for convenience foods. The CFL statements that make up the questionnaire are thus a mixture of some statements from the food-related lifestyle questionnaire and supplemental measures developed based on the literature review.

Drivers of convenience demand: the purpose of this piece of research is to determine the CFLs of consumers in Great Britain. The issues influencing demand for convenience and thus driving the market are now outlined and will be subsequently linked to the exploratory factors used in the methods section (see Table 1). It is important to note here that there may be replication of some factors under a number of the demand issues. Ten issues were identified as having an impact on the convenience food market. These are: (1) ageing population, (2) changing household structure, (3) increased female participation in the labour force and longer working hours, (4) consumer prosperity and technology ownership, (5) declining cooking skills, (6) desire for new experiences, (7) individualism, (8) healthy eating, (9) breakdown of traditional mealtimes and (10) value for money.

An ageing population in Great Britain has resulted in an increase in the demand for single or smaller serving food packages arising from the demand for convenience and for foods which minimise the amounts of ingredients that have to be thrown away if not used (IGD, 2001;

Senauer, Asp, & Kinsey, 1991). The decrease in the average household size (IGD, 2001), with one or two person households accounting for 65 percent of all households in the UK in 1999 (Intel, 2000), has also resulted in a greater demand for smaller pack sizes and single servings, for ready prepared food and for eating out (IGD, 1998; Khan, 2000).

The increasing number of smaller households in Great Britain has also resulted in an increase in the number of people eating alone (IGD, 1998). One of the demands of people who live alone is often for foods that require minimal clearing up time (Kahn, 1976). Time is one of the components of convenience definition employed in this study and the increasing number of smaller households in Great Britain has meant an increase in the demand for foods that enable quick preparation (IGD, 1998). There is a mental effort component associated with convenience and in the context of meal preparation, this relates to the extent to which the individual enjoys the activity of preparing meals (Candel, 2001).

The demand for convenience food in Great Britain has been fuelled by increased female participation in the work force (e.g. Senauer et al., 1991; Somogyi, 1990; Stafford & Wills, 1979; Traill, 1997) and working longer hours (Geest, 2001). This has resulted in a time sensitive shopper (Umesh, Pettit, & Bozman, 1989) as time is now being allocated to work in the marketplace at the expense of home production and leisure (Redman, 1980). People are also constrained to eat convenience food as they have other pressing obligations and it solves meal scheduling problems (Warde, 1999). Convenience foods may be seen as one solution to alleviating perceived time pressures (McKenzie, 1986). Time is one of the components of the definition of convenience and saving time while shopping for food is important to many individuals, particularly in light of the time pressures experienced by many British consumers. The food shopping activity involves a significant consumption of time (Davies & Madran, 1997). The high stress levels experienced among working women has resulted in greater use of convenience foods (Gupta & Jenkins, 1985; McKenzie, 1986; Traill & Harmsen, 1997). Since the provision of meals and family health have traditionally been the responsibility of the woman in the household (Redman, 1980), the consequence of market employment is reduced time available for household work (Jacobsen, 1999; Suen, 1994). During the week, time resources are limited and so convenience foods are one solution for weekday evening meals (Intel, 2000). Quick-to-prepare foods may also be chosen at the weekend due to the increased value placed on leisure time as a result of more time spent in the workplace (Traill, 1997). There has also been an increased need for labour- and time-saving devices (Traill, 1997). Convenience may also be conceptualised in terms of the mental effort that goes into planning a meal in advance as many people are constrained to eat convenience foods as a response to problems of scheduling everyday life (Warde, 1999).

Table 1  
Lifestyle characteristics relevant to the demand for convenience food<sup>a</sup>

Lifestyle issue driving demand for convenience food	Exploratory measure from FRL instrument	New measure developed
Ageing population	Convenience	Disposal of waste ingredients (D) Involvement with convenience foods (Candel, 2001)
Changing household structure	Interest in cooking	Eating alone (Ryan et al., 2002) Clearing up (D; IGD, 2002) Time and meal preparation (Candel, 2001) Enjoyment of meal preparation (D; Candel, 2001)
Female participation in labour force and longer working hours	Woman's task	Stress levels (Cohen et al., 1983)
	Whole family	Time pressures (Davies and Madran, 1997; Ryan et al., 2002)
	Planning	
	Shopping list	Time and convenience foods (Ryan et al., 2002; Prior, 2000)
Consumer prosperity and technology ownership	Importance of product information	
	Price criteria	Propensity towards convenience products (D; Mintel, 2000)
	Price/quality relation	Propensity towards convenience processes (D; Mintel, 2000)
Move towards healthy eating	Social event	Propensity towards convenience products (D; Mintel, 2000)
	Social relationships	Propensity towards convenience processes (D; Mintel, 2000)
Desire for new experiences	Convenience	
Individualism	Freshness	Health value of convenience foods (Prior, 2000; Ryan et al., 2002)
Declining cooking skills	Looking for new ways	
Breakdown of traditional mealtimes	Novelty	Individualism (Ryan et al., 2002)
Value for money	Social event	
	Social relationships	Skills requirement (D; IGD, 2002)
	Snacks versus meals	Breakdown of mealtimes (Ryan et al., 2002)
		Convenience food value for money (Ryan et al., 2002)

D = measure developed during research process.

<sup>a</sup>Not all measures considered were included in the final segmentation procedure.

As a result of rising income levels, people are choosing to eat out on a more regular basis, one alternative to preparing a meal from ingredients in the home (Geest, 2001; IGD, 2001). Other consequences of rising income levels have been noted as increased consumption of convenience food (Bonke, 1992) and the purchase of labour- and time-saving devices (Traill, 1997), discussed above. Physical energy is another component of convenience and the investment of physical effort in food shopping activities (such as using a shopping list and checking price and product information) is reflected in a number of constructs.

Partly as a result of increasing time pressures experienced by individuals, there has been a decline in the level of cooking skills possessed by consumers (Furey, McIlveen, Strugnell, & Armstrong, 2000; Geest, 2001; IGD, 1998). The lack of adequate levels of cooking abilities may also result in an increase in the number of people eating out (Furey et al., 2000).

Consumers are increasingly looking for novelty and excitement in the foods that they eat (Leatherhead Food RA, 2001) and seek innovative and ethnic meal solutions. In addition to seeking foods that are quick and easy to prepare, there is a desire amongst consumers for new experiences in the food that they prepare and eat, partly as a result of increased foreign travel, but also as a result of the increasing number of ethnic groups within Great Britain (IGD, 2000, 2001).

A shift towards a more individualistic eating behaviour means that the individual, rather than the family, has become the decision-maker in terms of food choice (IGD, 1998). Exhibiting more individualistic lifestyles is further reflected in their food habits (Gofton, 1995).

The increasing awareness amongst consumers of the link between diet and health has had a major impact on the development of the convenience food market (Geest, 2001; IGD, 2000; Mintel, 2000). Consumers believe that they "are what they eat" (Khan, 2000) thus there is a demand

amongst consumers for meal solutions that address many health concerns (Reuters, 2002). In fact the “star performers are convenience food lines such as chilled ready meals, pre-washed bagged lettuce leaves and cooking sauces” (Mintel, 2000). Freshness is also extremely important and fresh foods are often perceived as healthier than their processed counterparts (TNS, 2000).

The structure of meals in British households is changing. Meal patterns are becoming more fragmented, with increasing informality (IGD, 2000) and more people eating meals in front of the television and less families eating their meals together at the dinner table (Mintel, 2000). The breakdown of mealtimes leads to an increase in the demand for different foods, including some convenience foods, to meet the individual demands resulting from families not eating together (IGD, 2000). There has also been an increase in snacking and eating on-the-go (Research and Markets, 1999).

Acquiring value for money is important in convenience food choice (Ryan, 2002). These factors, along with the increased availability from industry of more value-added convenience foods, have fuelled the demand for convenience food.

## Methods

### *Measures developed*

A number of measures were subsequently developed based on the review of the convenience food market presented in the previous section.

- (1) *Ageing population*: ‘Convenience’ looks at the use of convenience foods in the household, while “disposal of waste ingredients” was a measure developed to assess consumer attitudes towards convenience foods as a method of reducing ingredient wastage.
- (2) *Changing household structure*: ‘Eating alone’ measures the extent to which an individual does not enjoy cooking for him/herself. Statements included in ‘clearing up’ relate to the desire of consumers to save time when clearing up after a meal. ‘Time and meal preparation’ consisted of statements that related to the desire of the individuals living alone or in smaller households to save time when preparing meals. ‘Interest in cooking’ comprised statements that related to the time spent in the kitchen on meal preparation and cooking. ‘Enjoyment of meal preparation’ examines the satisfaction that is derived from the activity of preparing meals and thus the extent to which the individual is convenience oriented towards this activity.
- (3) *Increased female participation in the labour force and longer working hours*: ‘Time pressures’ relates to the extent to which individuals perceive that there is a burden on available time resources. ‘Time and convenience food’ examines the level of time saving offered by convenience foods as perceived by the consumer.
- ‘Time and ways of shopping’ relates to the importance of saving time while shopping for food. ‘Stress levels’ examines the extent to which individuals perceive that they are stressed. ‘Woman’s task’ assesses the extent to which kitchen chores are the responsibility of the woman in the household, while ‘whole family’ indicates the extent to which other household members are involved in meal preparation activities. ‘Propensity towards convenience products’ examines the extent to which convenience food products are chosen, both on weekdays and at weekends, to avoid cooking a meal from scratch. ‘Propensity towards convenience processes’ examines the inclination of individuals to employ just one of these devices, the microwave, when preparing and cooking meals both on weekdays and at weekends. ‘Planning’ examines whether or not a meal is planned in advance or is a last minute decision.
- (4) *Consumer prosperity and technology ownership*: ‘Social event’ evaluates the social importance of eating in the life of the consumer and looks at the value attached to going to restaurants with family and friends. ‘Social relationships’ evaluates the importance of socialising over a meal. ‘Shopping lists’ refers to the physical planning of the shopping event and the extent to which the individual uses a shopping list. The energy expended in reviewing product information labels and the desire to know what the product contains is encompassed in ‘importance of product information’, while the effort invested in checking prices and ensuring value for money is reflected in ‘price criteria’ and ‘price/quality relationship’. Acquiring value for money is important in food choice (Ryan, 2002); ‘convenience food value for money’ measures the extent to which convenience foods offer value for money to the individual.
- (5) *Declining cooking skills*: ‘Skills requirement’ addresses the fact that many people feel that they do not have the culinary skills to prepare a meal and the extent to which convenience foods are used as a solution. ‘Looking for new ways’ examines whether or not the individual experiments with new recipes in the kitchen, while ‘novelty’ looks at the importance of trying unfamiliar foods.
- (6) *Individualism*: ‘Individualism’ consists of three statements to measure individual preferences within the household. ‘Involvement with convenience foods’ measures an individual’s attitude towards and the importance attached to convenience foods (Candel, 2001).
- (7) *Healthy eating*: ‘Health value of convenience food’ measures the perceived healthiness of convenience foods. ‘Freshness’ looks at the relative importance of fresh over processed foods.
- (8) *Breakdown of traditional mealtimes*: ‘Breakdown of mealtimes’ reflects on the likelihood of family members having their meals at separate times. ‘Snacks versus

meals' pertains to the degree to which snacking has replaced fixed meal occasions and the extent to which the individual snacks between meals.

- (9) *Value for money*: 'Convenience food value for money' measures the extent to which convenience foods offer value for money to the individual. Based on the measures above, it is clear that there is a link between the measures developed and the factors driving demand in the convenience food market.

### Questionnaire

At the core of CFL segmentation is a questionnaire comprising 80 statements. The questions have the form of statement, to which respondents indicate their degree of agreement on a seven-point scale (1 = completely disagree; 7 = completely agree). Respondents were also asked a number of questions relating to their behaviour with respect to meal preparation activities. They were asked to indicate how often they go out for a meal, purchase a takeaway meal to eat at home and away from home, cook a meal from ingredients, and snack instead of eating 'proper' meals. These categories were selected since the authors considered them to be good indicators of convenience, for example saving time and energy in meal preparation, cooking, shopping, clearing up, skills requirement, etc. Subjects responded using a seven-point response format scale, which ranged from 'everyday or almost every day' through to 'never.' A classification section was used to build a demographic profile of the segments. The demographic variables related to gender, age, household structure, education, occupational status, income and the region of Great Britain in which the respondent resided.

A nationally representative sample of 1004 respondents completed the survey<sup>1</sup> in Great Britain in 2002. A market research company was commissioned to carry out the fieldwork. The interviews were conducted at 73 sample points throughout Great Britain. The number of sample points was calculated to be representative of Great Britain geographically. The sample points (starting points) were selected from the Postcode Address File (PAF), a database of all residential postal addresses in the UK. The addresses were subsequently placed in ACORN<sup>2</sup> categories. Sample points were selected in proportion to the population in each region. Within each region, addresses were selected at random using a 1 in *n* sampling procedure, following stratification by ACORN classification. An equal number of interviews were conducted at each sample point, following a random route with no callbacks, from the pre-selected start address. Each interview was conducted in the respondent's home; this method was used as it enabled

the researcher to elicit a higher response rate among the identified respondents and to minimise non-response to individual questions. The respondent was the person with primary responsibility for food shopping and cooking in the household. To further ensure that the sample was representative of this population in Great Britain, quotas were set on age and working status.

### Data analysis

The next stage in this research was to reduce the number of statements into a set of factors, which could subsequently be used to achieve the objective of the research. Factor analysis is a multivariate statistical technique that seeks to identify structure within a set of observed variables (Stewart, 1981). The procedure analyses the structure of the interrelationships among a number of variables by defining a set of common underlying dimensions, known as factors (Hair, Anderson, Tatham, & Black, 1998). This method was also used in previous lifestyle segmentation studies. (Grunert, Brunso, & Bredahl, 1998; Ryan et al., 2002; Shim et al., 2001).

An initial principal component factor analysis with varimax rotation on 80 attitudinal statements regarding convenience-specific lifestyle identified 20 factors with an eigenvalue exceeding 1.0. Excluding those statements with a 0.3 factor loading on more than one factor, a second analysis resulted once again in 20 factors (measured by 70 statements). The principal component analysis technique thus allowed the data to be simplified and interpreted into 20 key component factors. The conceptual model used here was the drivers of demand for convenience food. Although more measures were inputted to the analysis than emerged, the main ideas remained. For this research, exploratory factor analysis (EFA) was used. No other conceptual framework was considered at the time of the research. Alternative frameworks such as confirmatory factor analysis could have been considered alongside the EFA. The EFA may be justified as all 20 factors find their origins in the demand for convenience food, although it can be argued that a theoretically prescribed number of factors may have provided more illumination of the CFL results. For those measures that loaded together, the factor that subsequently emerged made sense in the context of the particular driver. Reliability analysis, using Cronbach's  $\alpha$ , was performed to test the reliability and internal consistency of each of the 20 CFL factors. Cronbach coefficients ranged from 0.51 to 0.89. The reliability coefficients were acceptable (all >0.5) which is the minimum value that is considered acceptable as an indication of reliability (Hair et al., 1998). Indeed, 17 of the 20 CFL factors scored greater than 0.6, which was the satisfactory level proposed by Malhotra (1993). In addition, the factors that emerged from the factor analysis were reflective of trends in the market place.

The factors, statements, factor loadings and reliability coefficients are presented in Table 2.

<sup>1</sup>A full copy of the questionnaire is available on request from the corresponding author.

<sup>2</sup>A Classification Of Residential Neighbourhoods—a method of geographically mapping the concentrations of particular types of people, based on the type of areas in which they live. The classification is based on demographic and lifestyle data incorporating every street in Great Britain.

Statements in Factor 1 (convenience food choice) covered motives for selecting convenience food solutions (e.g. saving time and effort when clearing up after a meal, preference for convenience for weekday versus weekend meal occasions). Factor 2 (convenience in meal preparation) included statements addressing the time and energy invested in meal preparation and cooking and the extent to which the individual enjoys the activity of meal preparation. Factor 3 (neophilia) consisted of statements that relate to the pursuit of novelty when purchasing food and experimenting in the kitchen. Factor 4 (freshness versus convenience) involves consumer attitudes towards fresh foods versus the alternative of convenience foods. Factor 5 (convenience in shopping) relates to the importance of saving time and energy while shopping for food. Factor 6 (time pressures) deals with consumer perceptions of the extent to which the individual feels that time resources are strained. Factor 7 (individualism) represents the expression of individual eating patterns within a household. Factor 8 (price check) is concerned with consumer price consciousness and whether the individual invests time and energy deliberating over price when shopping for food. Factor 9 (shopping list) pertains to whether food shopping is planned or impulsive. Factor 10 (disposal of waste ingredients) relates to the use/non-use of ingredients purchased and whether convenience foods are used to lessen ingredient wastage.

Factor 11 (information check) reflects on the importance of product information in the food purchase decision and whether the individual is willing to expend time and effort considering available product information. Statements in factor 12 (eating out) refer to meal occasions outside the home and the social aspects of eating. Factor 13 (whole family) indicates the involvement of other household members in meal preparation and cooking activities. Factor 14 (woman's task) assesses the degree to which kitchen chores are understood to be the responsibility of the woman in the household. Factor 15 (stress levels) captures the perceived stress levels of respondents. Factor 16 (propensity towards convenience processes) examines consumer inclination towards the use of appliances (e.g. microwave) when cooking meals on weekdays and at weekends. Factor 17 (planning) is concerned with the degree to which meal occasions are planned in advance or whether meal events tend to be spontaneous. Factor 18 (breakdown of mealtimes) encompasses statements that relate to the disposition of household members to have their meals together. Factor 19 (snacking) pertains to the extent to which the individual snacks between or instead of meals. Finally, Factor 20 (eating alone) embodies statements relating to the incidence of eating alone and cooking solely for oneself.

Since the objective of this particular research was to identify and profile a number of CFL segments, cluster analysis was subsequently conducted using the 20 identified factors. Average factor scores were computed for each of the 20 factors identified; scores on a factor thus ranged

from 1 to 7. The factor scores for each individual were subjected to hierarchical cluster analysis, employing Ward's method. The squared Euclidean distance was used as the distance measure in the clustering procedure. This method had been used in previous lifestyle segmentation studies (e.g. Brunso et al., 1996; Ryan et al., 2002). A total of 779 respondents were included in the cluster analysis.

Cluster solutions of 2–7 groups were initially generated. The solutions were evaluated based on a number of criteria before a final cluster solution was selected. Firstly, the agglomeration schedule was examined and the percentage change in the clustering coefficient was determined for two through to seven clusters. The largest percentage increase occurred in going from two clusters to one cluster. The next prominent movement in the percentage increase occurred in combining four into three clusters. The two and four cluster solutions were subsequently selected for further consideration. The two-cluster solution was disregarded based on analysis of variance, as the clusters were not significantly different across all 20 convenience-specific lifestyle factors. Significant differences were identified across all 20 factors for the four-cluster solution based on a one-way ANOVA. Furthermore, the 4-cluster solution exhibited the highest percentage of pairwise differences. The pair-wise differences were evaluated using post hoc Bonferroni multiple comparison tests.

### Results of cluster analysis

Four segments with distinct CFLs were identified, namely: the '*food connoisseurs*' (26% of consumers), the '*home meal preparer*' (25%), the '*kitchen evaders*' (16%) and the '*convenience-seeking grazers*' (32%). Characteristics of these groups are presented in the following sections. Table 3 presents a categorisation of the CFL segments, based on a comparison of their mean scores. The next stage was to determine if the segments could be significantly distinguished in attitudes towards convenience foods, referring to involvement with and perception of convenience foods in terms of value for money, health value and time value. These results are presented in Table 4, which reports a comparison based on the mean scores of each of the segments. A similar procedure was undertaken to compare attitudes of the segments towards ready meals and takeaway meal solutions (Table 5). Next, the reported behaviour of the CFL segments was interpreted by ranking the reported behaviour of the segments using the Mann-Whitney test (Table 6). A range of consumption variables including both less and more convenient measures were included, ranging from preparing a meal from ingredients to ready meals requiring cooking or reheating as well as snacks and takeaway options. It should be noted here that where segments are illustrated to have the same rank behaviour, this is due to the presence of ties, indicative of no significant differences between the reported behaviours of the segments. Finally, the demographic characteristics of the segments were distinguished

Table 2  
Factor loadings and reliability scores of the convenience food lifestyle (CFL) factors

Factor/statements	Source	Factor loading
<i>1. Convenience food choice</i>		
We use a lot of ready-to-eat foods in our household	Grunert et al. (1993)	0.443
One of the reasons I use convenience foods is to reduce the amount of washing up	D	0.712
I choose easy, quick-to-prepare food for weekend evening meals	Adapted from Mintel (2000)	0.558
Foods that do not require clearing up following a meal are an important part of my shopping list	D	0.759
I choose easy, quick-to-prepare food for weekday evening meals	Mintel (2000)	0.710
Convenience foods allow me to have something that I wouldn't normally know how to cook	IGD (2002)	0.555
I choose foods that don't create much, if any, washing up	IGD (2002)	0.640
Cronbach's $\alpha$ reliability coefficient: 0.8340		
<i>2. Convenience in meal preparation and cooking</i>		
I don't like spending too much time on cooking	Grunert et al. (1993)	0.587
I like to have ample time in the kitchen for cooking/preparing meals	Grunert et al. (1993)	0.564
Cooking is a task that is best over and done with	Grunert et al. (1993)	0.556
I love spending time in the kitchen preparing food	D	0.768
Preparing meals gives me a lot of satisfaction	Candel (2001)	0.765
I enjoy preparing meals from scratch	D	0.689
Cronbach's $\alpha$ reliability coefficient: 0.8461		
<i>3. Neophilia</i>		
I look for ways to prepare unusual meals	Grunert et al. (1993)	0.551
I love to try recipes from foreign countries	Grunert et al. (1993)	0.804
Recipes and articles on food from other cooking traditions make me experiment in the kitchen	Grunert et al. (1993)	0.673
I like to try new foods that I have never tasted before	Grunert et al. (1993)	0.793
I like to try out new recipes	Grunert et al. (1993)	0.755
Cronbach's $\alpha$ reliability coefficient: 0.8450		
<i>4. Fresh versus convenient</i>		
I prefer fresh products to canned or frozen products	Grunert et al. (1993)	0.769
It is important to me that food products are fresh	Grunert et al. (1993)	0.734
Frozen foods account for a large part of the food products I use in our household	Grunert et al. (1993)	0.485
I prefer to buy meat and vegetables fresh rather than frozen/canned	Grunert et al. (1993)	0.781
Cronbach's $\alpha$ reliability coefficient: 0.7406		
<i>5. Convenience in shopping</i>		
Shopping for food does not interest me at all	Grunert et al. (1993)	0.642
I just love shopping for food	Grunert et al. (1993)	0.615
I try to do my food shopping as quickly as possible	Boedekker (1995)	0.662
I do not like spending much time shopping for food	D	0.641
Food shopping takes up too much of my time	Roberts and Wortzel (1979)	0.615
Cronbach's $\alpha$ reliability coefficient: 0.7343		
<i>6. Time pressures</i>		
I am always looking to save time	Davies and Madran (1997)	0.546
I am often rushing to get everything done	Ryan et al. (2002)	0.734
I am always in a rush	Davies and Madran (1997)	0.779
Cronbach's $\alpha$ reliability coefficient: 0.7500		
<i>7. Individualism</i>		
There is at least one person in my family who often needs a separately prepared meal	Ryan et al. (2002)	0.671
Certain members of my family have different tastes in food to the rest of the family	Ryan et al. (2002)	0.830
Certain members of my family are choosy/picky in what they eat	Ryan et al. (2002)	0.839
Cronbach's $\alpha$ reliability coefficient: 0.7615		
<i>8. Price check</i>		
I compare prices between product variants (i.e. various brands of same product) in order to get the best value for money	Grunert et al. (1993)	0.763
I look for ads in the newspaper for store specials and plan to take advantage of them when I go shopping	Grunert et al. (1993)	0.555
I always check prices, even on small items	Grunert et al. (1993)	0.782
Cronbach's $\alpha$ reliability coefficient: 0.6103		

Table 2 (continued)

Factor/statements	Source	Factor loading
<i>9. Shopping list</i>		
Before I go shopping for food, I make a list of everything I need	Grunert et al. (1993)	0.895
I make a shopping list to guide my food purchases	Grunert et al. (1993)	0.887
Cronbach's $\alpha$ reliability coefficient: 0.8883		
<i>10. Disposal of waste ingredients</i>		
I find that I often have to throw away ingredients when cooking a meal from scratch	D	0.761
Throwing out leftover ingredients is all too common in this household	D	0.623
I often find that I buy ingredients, use them once, then leave them in the cupboard and never use them again	D	0.630
Cronbach's $\alpha$ reliability coefficient: 0.6647		
<i>11. Information check</i>		
I compare product information labels to decide which brand to buy	Grunert et al. (1993)	0.544
I like buying food products in speciality stores where I can get expert advice	Grunert et al. (1993)	0.751
I do not see any reason to shop in speciality food stores	Grunert et al. (1993)	0.675
I like to know what I am buying, so I often ask questions in stores where I shop for food	Grunert et al. (1993)	0.551
Cronbach's $\alpha$ reliability coefficient: 0.6209		
<i>12. Eating out</i>		
Dining with friends is an important part of my social life	Grunert et al. (1993)	0.790
Going out for dinner is a regular part of our eating habits	Grunert et al. (1993)	0.780
I enjoy going to restaurants with my family and friends	Grunert et al. (1993)	0.729
Cronbach's $\alpha$ reliability coefficient: 0.7078		
<i>13. Whole family</i>		
The kids or other members of the family always help in the kitchen e.g. they peel the potatoes and cut the veg	Grunert et al. (1993)	0.780
My family helps with other mealtime chores, such as setting the table and doing the dishes	Grunert et al. (1993)	0.760
When I do not really feel like cooking, I can get one of the other members of my family to do it	Grunert et al. (1993)	0.726
Cronbach's $\alpha$ reliability coefficient: 0.6654		
<i>14. Woman's task</i>		
It is the woman's responsibility to keep the family healthy by serving a nutritious diet	Grunert et al. (1993)	0.708
Nowadays the responsibility for shopping and cooking ought to lie just as much with the husband as with the wife	Grunert et al. (1993)	0.648
I consider the kitchen to be the woman's domain	Grunert et al. (1993)	0.759
Cronbach's $\alpha$ reliability coefficient: 0.6179		
<i>15. Stress levels</i>		
In the last month difficulties were piling up so high that I could not overcome them	Cohen et al. (1983)	0.748
Recently I have been unable to control the important things in my life	Cohen et al. (1983)	0.771
Lately things have been going my way	Cohen et al. (1983)	0.588
Cronbach's $\alpha$ reliability coefficient: 0.6387		
<i>16. Propensity towards convenience processes</i>		
I regularly use the microwave to cook my evening meal during the week	Adapted from Mintel (2000)	0.792
I regularly use the microwave to cook my evening meal during the weekend	Adapted from Mintel (2000)	0.782
Cronbach's $\alpha$ reliability coefficient: 0.8286		
<i>17. Planning</i>		
I always plan what we are going to eat a couple of days in advance	Grunert et al. (1993)	0.625
What we are going to have for supper is very often a last-minute decision	Grunert et al. (1993)	0.701
Cooking needs to be planned in advance	Grunert et al. (1993)	0.441
Cronbach's $\alpha$ reliability coefficient: 0.5567		
<i>18. Breakdown of mealtimes</i>		
We often like to watch TV while eating meals	Ryan et al. (2002)	0.398
In my house family members often have their meals at separate times	Ryan et al. (2002)	0.718
It is difficult for us to have a family meal together	Ryan et al. (2002)	0.677
Cronbach's $\alpha$ reliability coefficient: 0.5860		

Table 2 (continued)

Factor/statements	Source	Factor loading
<i>19. Snacking</i>		
I eat before I get hungry which means I am never hungry at meal times	Grunert et al. (1993)	0.655
I eat whenever I feel the slightest bit hungry	Grunert et al. (1993)	0.817
I snack a lot when I am at home on my own	Ryan et al. (2002)	0.451
Cronbach's $\alpha$ reliability coefficient: 0.5095		
<i>20. Eating alone</i>		
I don't usually prepare a proper meal when there's just me	Ryan et al. (2002)	0.810
I don't enjoy cooking just for myself	Ryan et al. (2002)	0.670
Cronbach's $\alpha$ reliability coefficient: 0.6406		

D = Developed during the research process.

Table 3  
Categorisation of respondents into CFL segments based on mean score comparison and interpretation

	Food connoisseurs	Home meal preparer	Kitchen evaders	Convenience-seeking grazers
Convenience food choice	Less motivated to select convenience foods	Least motivated to select convenience foods	Most motivated to select convenience foods	More motivated to select convenience foods
Convenience in meal preparation and cooking	Low importance	Lowest importance	Highest importance	Higher importance
Neophilia	Most important	Important	Least importance	Less important
Freshness versus convenience	Important	Very important	Less important	Least important
Convenience in shopping	Less important	Least important	Most important	Important
Time pressures	Low	Lowest	Highest	High
Individualism	Weak	Weakest	Strongest	Strong
Price check	Indifferent	Price sensitive	Indifferent	Price sensitive
Shopping list	Unimportant	Most important	Least important	Important
Disposal of waste ingredients	Unimportant	Least important	Most important	Important
Information check	Indifferent	Important to check product information	Not concerned with checking product information	Indifferent
Eating out	Neither important nor unimportant	Neither important nor unimportant	Neither important nor unimportant	Neither important nor unimportant
Whole family	Likely to involve	Most likely to involve whole family	Least likely to involve all the family	Unlikely to involve
Woman's task	Least likely to hold this view	Likely	Unlikely	Most likely to hold this view
Stress levels	Low	Lowest	Highest	Highest
Propensity towards convenience processes	Low	Lowest	High	Highest
Planning	Less likely to plan	Most likely to plan	Least likely to plan	Likely to plan
Breakdown of mealtimes	Unlikely	Least likely	Most likely	Likely
Snacking	Least likely	Unlikely	Likely	Most likely
Eating alone	Unlikely	Least likely	Most likely	Likely

Table 4  
Comparison of CFL segments based on attitudes towards convenience food

	Food connoisseurs	Home meal preparer	Kitchen evaders	Convenience-seeking grazers
Involvement with convenience foods	Low involvement	Lowest involvement	High involvement	Most involved
Convenience food value for money	Low value for money rating	Lowest value for money rating	High value for money rating	Highest value for money rating
Health value of convenience food	Low health perception	Lowest health perception	Highest health perception	High health perception
Time and convenience food	Low time saving value	Low time saving value	Highest time saving value	Lowest time saving value

Table 5  
Comparison of CFL segments based on attitudes towards ready meals and takeaway meal solutions

	Food connoisseurs	Home meal preparer	Kitchen evaders	Convenience-seeking grazers
Ready meals are good value for money	Low value	Lowest value	Highest value	High value
Ready meals are good backup to have in the home	Low value	Lowest value	Highest value	High value
Ready meals are convenient	Low value	Lowest value	Highest value	High value
Takeaway meals are convenient	Low value	Lowest value	Highest value	Low value
Takeaway meals are worth the extra cost	Low value	Lowest value	Highest value	High value
Takeaway meals are a good last minute solution	Low value	Lowest value	Highest value	High value

Table 6  
Ranking of the reported behaviour of the CFL segments

	Food connoisseurs	Home meal preparer	Kitchen evaders	Convenience-seeking grazers
Go out for a meal	1	1	1	1
Buy a takeaway meal to eat away from home	3	4	1	1
Buy a takeaway meal to eat at home	3	4	1	1
Cook a meal from ingredients	2	1	3	3
Do not eat a 'proper' meal just snack	3	4	1	1
Eat ready meals	3	4	1	1
Ready meal form				
Purchase frozen ready meals	3	4	2	1
Purchase chilled ready meals	1	4	1	1
Purchase canned ready meals	2	4	2	1
Purchase dried ready meals	1	4	1	1
Ready meal type				
Purchase ethnic ready meals	1	4	1	1
Purchase healthy ready meals	2	4	2	1
Purchase traditional ready meals	3	3	2	1
Purchase vegetarian/meat free ready meals	2	2	2	1
Purchase organic ready meals	1	4	3	1
Purchase fish-based ready meals	2	2	2	1
Purchase pizzas	3	4	1	1

"1" = Ranked first for reported behaviour (i.e. highest reported consumption); "4" = Ranked fourth for reported behaviour (i.e. lowest reported consumption).

(Table 7). In the detailed presentation, only those results where significant differences were identified are referred to.

The independent sample *t*-test was utilised to ascertain if significant differences existed across each of the CFL factors between the mean score of a particular segment and

the remaining three segments combined. The objective was to ascertain whether each segment was truly distinctive compared to the three remaining segments. The food connoisseurs are significantly different across all of the factors with the exception of 'information check'

Table 7  
Demographic profile of the CFL segments

	CFL sample	Food connoisseurs	Home cooks	Kitchen evaders	Convenience-seeking grazers	$\chi^2$
<i>Gender</i>						
Male	14.6	16.5 <sup>a</sup>	15.7	13.7	12.7 <sup>b</sup>	***
Female	85.4	83.5 <sup>b</sup>	84.3	86.3	87.3 <sup>a</sup>	
<i>Age</i>						
16–24	9.1	6.3	5.6 <sup>b</sup>	15.3 <sup>a</sup>	11.1	***
25–34	23.2	23.8	13.7 <sup>b</sup>	28.2 <sup>a</sup>	27.8	
35–44	24.6	30.1 <sup>a</sup>	22.3	29.0	19.8 <sup>b</sup>	
45–54	17.5	17.0	17.3	12.1 <sup>b</sup>	20.6 <sup>a</sup>	
55–64	13.0	11.7	18.3 <sup>a</sup>	11.3	10.7 <sup>b</sup>	
65–75	12.6	11.2	22.8 <sup>a</sup>	4.0 <sup>b</sup>	9.9	
<i>No. of people in household</i>						
1	11.5	11.2	16.2 <sup>a</sup>	12.1	7.6 <sup>b</sup>	***
2	29.2	29.8	37.6 <sup>a</sup>	22.6 <sup>b</sup>	25.5	
3	22.5	16.1 <sup>b</sup>	21.8	20.2	29.5 <sup>a</sup>	
4	24.7	26.8	14.7 <sup>b</sup>	29.0 <sup>a</sup>	28.7	
5	8.8	11.7	6.1 <sup>b</sup>	12.9 <sup>a</sup>	6.4	
6 or more	3.3	4.4 <sup>a</sup>	3.6	3.2	2.4 <sup>b</sup>	
<i>Social grade</i>						
AB	17.3	20.0	20.2 <sup>a</sup>	19.7	11.6	***
C1	28.1	33.7	32.1	20.5	24.1	
C2	23.1	22.4	21.2	21.3	26.1 <sup>a</sup>	
DE	28.9	22.4	24.4	34.4	34.9 <sup>a</sup>	

\*\*\* Indicates significance at 99.9% confidence interval.

<sup>a</sup>Highest proportion.

<sup>b</sup>Lowest proportion.

( $p = 0.587$ ) and ‘whole family’ ( $p = 0.111$ ). The home meal preparers are significantly different from the remaining segments on all but one of the factors—‘eating out’ ( $p = 0.977$ ). The kitchen evaders are similar to the other three segments in terms of ‘freshness versus convenience’ ( $p = 0.203$ ), ‘eating out’ ( $p = 0.357$ ) and ‘woman’s task’ ( $p = 0.909$ ). Finally, the convenience-seeking grazers do not exhibit a significant disparity against the other segments in terms of ‘neophilia’ ( $p = 0.445$ ), ‘information check’ ( $p = 0.108$ ) and ‘whole family’ ( $p = 0.263$ ).

#### *The ‘food connoisseurs’ (26%)*

##### *Convenience lifestyle factors*

The ‘food connoisseurs’ account for 26% of the sample and are distinguished by the low importance placed on almost all of the convenience factors (Table 3). This segment is the least likely to snack between meals or to snack instead of eating meals. This segment is less likely to select convenience food to make life easier. Saving time and energy in meal preparation and during shopping is less important to these consumers than to some of the other groups. They are less likely to seek convenient methods of meal preparation and cooking than the kitchen evaders and the convenience-seeking grazers. They feel less time pressured and less stressed than most other groups. They

have a below average interest in using convenience foods as a means of cutting down on ingredient wastage.

This segment may be characterised as a group that takes the most pleasure from new foods and experimenting in the kitchen and enjoys eating out and with friends more than any other segment. Furthermore, compared to all the other segments, these individuals are less likely to eat alone and individualistic eating patterns are less likely to exist among household members.

The food connoisseurs are less likely than the other segments to be concerned with checking the price of their food items and are the least inclined to view cooking and meal preparation as the sole responsibility of the woman in the household.

Despite the fact that convenience is relatively unimportant to these consumers, they are less likely to engage in planning in both meal preparation and food shopping.

##### *Attitudes towards convenience food*

The food connoisseurs (Table 4) are less likely to perceive convenience foods as healthy or to be important to them in their lives than the kitchen evaders or the convenience-seeking grazers. Furthermore, compared to these two groups, they believe to a significantly lesser extent that convenience foods are important from a timesaving perspective.

### *Ready meals and takeaway meals—attitudes and reported behaviour*

The food connoisseurs are less likely to believe that ready meals offer value for money and are a good backup, or that takeaways are worth the extra cost (Table 5) than the kitchen evaders and the convenience-seeking grazers.

The attitudes of the food connoisseurs towards ready meals and takeaway meal solutions are reflected in their reported behaviour for these categories (Table 6). They are ranked third for all the convenient options from purchasing takeaway meals to eat both at home and away from home to consumption of ready meals. Furthermore they are ranked second for cooking a meal from ingredients.

### *The home meal preparers (25%)*

#### *Convenience lifestyle factors*

The 'home meal preparers', representing 25% of consumers, are similar in many respects to the food connoisseurs, although they tend to be even less convenience-orientated in their attitudes. They are the least inclined to purchase convenience foods to make their lives easier (Table 3). Compared to the other groups, this segment is the least likely to seek out ways of saving time and effort during the meal preparation and cooking process. Saving time and effort while shopping for food is less important to them and they are the least likely to feel a burden on their time resources.

Freshness rather than convenience is more important to these consumers than to consumers in the other segments. Checking the price and information labels of products is also a characteristic of the home meal preparer. These consumers tend to be organised in their meal planning and food shopping activities. Furthermore, this segment is the most likely to have the whole family involved in meal preparation activities.

Individualistic eating patterns and breakdown of mealtimes is less likely to occur in these households than in any other group. Snacking is not widespread among these consumers and they attained the lowest score for propensity to use a microwave when cooking the evening meal. They are also the least stressed of all the segments.

#### *Attitudes towards convenience food*

The home meal preparer are the least positive about the attributes of convenience foods (Table 4). Of all four segments, they are the least likely to perceive convenience foods as healthy and to believe that convenience foods offer value for money. They have the lowest level of involvement with convenience foods.

### *Ready meals and takeaway meals—attitudes and reported behaviour*

Their attitudes and behaviours regarding ready meals and takeaway meal solutions demonstrate further the negative perception of the home meal preparer regarding convenience foods (Table 5). Thus for example they are the

least likely to believe that ready meals offer good value for money and do not tend to think that takeaway meals are convenient, are worth the extra cost or are a good last minute meal solution.

The view of the home meal preparer concerning ready meals and takeaway meals is verified by their reported behaviour. They are ranked the least important customer of convenience products (Table 6), while they are ranked first for cooking a meal from ingredients.

### *The kitchen evaders (16%)*

#### *Convenience lifestyle factors*

In contrast to the food connoisseurs and the home meal preparer, 'kitchen evaders', 16% of the sample, are much more convenience-orientated in their food activities. Of the four segments, they are the most likely to select convenience foods to make their lives easier, and they place more emphasis on convenience in meal preparation and shopping and on using a microwave while cooking meals. The 'kitchen evaders' are the most likely of all segments to experience the problems associated with ingredient wastage and are inclined to select convenience foods as an alternative.

They also experience the highest level of time pressure of all the segments (Table 3) and encounter relatively high stress levels. Furthermore, and in contrast to the home meal preparer, the 'kitchen evaders' do not tend to be ordered in planning their meals and shopping excursions—they are the least inclined to use a shopping list and to plan meals in advance. In addition, they are the least likely of all segments to invest time and effort checking information on a product.

The kitchen evaders are not predisposed to selecting novel foods or to experimenting in the kitchen. Breakdown of mealtimes, eating alone and individualism in their consumption patterns are most likely to occur in these households. The kitchen evaders also have a tendency towards snacking between meals.

#### *Attitudes towards convenience food*

In contrast to the food connoisseurs and the home meal preparer, the kitchen evaders have a more positive attitude towards convenience foods (Table 4). Thus for example, they have a higher level of involvement with convenience and they believe to a greater extent that convenience foods offer value for money and are healthy. The kitchen evaders are the only segment that has an above average belief that the convenience foods save time.

### *Ready meals and takeaway meals—attitudes and reported behaviour*

The kitchen evaders hold corresponding positive attitudes for ready meals and takeaway meals as they do for convenience food in general (Table 5). They strongly believe that ready meals are a good backup to have in the home and that takeaway meals are worth the extra cost.

Corresponding to their attitudes, the behaviour of the kitchen evaders reflects their sentiments regarding ready meals and takeaway meals (Table 6). They are ranked joint first for purchasing almost all types of these foods. Furthermore, they are least likely to cook a meal from ingredients.

#### *The convenience-seeking grazers (33%)*

##### *Convenience-specific lifestyle factors*

The fourth and final cluster, the ‘convenience-seeking grazers’, representing 33% of the sample, reported highest importance for five of the convenience lifestyle factors (Table 3). The convenience orientation of the convenience-seeking grazers is further illustrated by their higher than average tendency to choose convenience foods to make their lives easier. Convenience in meal preparation and shopping is more important to these consumers than to most others. They feel a burden on their time availability and often purchase convenience foods to dispense with the problem of ingredient wastage.

Unlike the kitchen evaders, the convenience-seeking grazers are more likely to plan their shopping in advance and are more likely to check the price of a product. While using shopping list they are less likely to do so than the home meal preparer and they hold the belief more than any of the other segments that cooking and meal preparation are the sole responsibility of the woman. The convenience-seeking grazers are willing to forego freshness for convenience in order to save time and effort. They are the least likely to enjoy eating out and with friends.

Along with the time-pressed kitchen evaders, they experience the highest levels of stress. They have the highest inclination to use the microwave and to snack between meals. Furthermore, breakdown of mealtimes and eating alone occur frequently among consumers in this segment.

##### *Attitudes towards convenience food*

Corresponding with their desire for convenience in their food-related activities, the *convenience-seeking grazers* also hold a positive attitude towards convenience food (Table 4). They are more likely to think that convenience foods are good value for money and they have a greater inclination to feel that convenience foods are important in their lives. However, they are the least likely of all the segments to perceive convenience foods as beneficial from a timesaving perspective.

##### *Ready meals and takeaway meals—attitudes and reported behaviour*

The convenience-seeking grazers are quite positive towards ready meals and takeaway meals (Table 5). They are more likely to think that ready meals are good value for money, convenient and a good backup to have in the home and to consider takeaway meals to be worth the extra cost.

The reported behaviour of the *convenience-seeking grazers* is quite analogous to their attitudes. They are ranked joint first for all the convenience options and are among those least likely to cook a meal from ingredients (Table 6).

#### *Demographic differences between the CFL segments*

Finally, the demographic characteristics of the CFL segments were examined by comparing the frequency of occurrence in each segment using the  $\chi^2$  statistic to ascertain if there were significant differences between the segments (Table 7). The test found there were significant differences between the four segments at the 99.9% confidence interval for each of the demographic variables.

The food connoisseurs contained the highest proportion of males (16.5%) and of individuals in the 35–44 age group (30%). This segment also contains above average proportions of individuals who live in households where there are four or more people (43%). Along with the home meal preparers this segment contains high proportions of individuals in the ABC1 social groupings.

Individuals in the home meal preparer segment tend to be older with this group containing the highest percentages of individuals in both the 55–64 (18%) and 65–75 (23%) age categories. This segment also contains the highest proportion of individuals who live in single-person (16%) or two-person (38%) households. The home meal preparer segment contains a high proportion in the AB social grouping (20%).

The kitchen evaders group contains the highest proportion of individuals in the 16–24 age category (15%) and with the convenience-seeking grazers segments contain above average proportions of individuals in the 25–34 age category (28%). This segment contains the highest proportion of individuals who live in households where there are four or more people (45%). The kitchen evaders segment contains above average proportions of individuals in the DE grade (34%).

The convenience-seeking grazers group contained the highest proportion of females (87.3%) and of individuals in the 45–54 age category (21%) as well as a high proportion in the 25–34 age group. The convenience-seeking grazers segment also contains high proportions of three and four person households (almost 30% for both). It has the highest proportion of individuals in the C2 and DE social groups (26% and 35%, respectively).

## **Discussion**

The objective of this study was to segment consumers based on their CFLs and to subsequently profile them based on attitudes and reported behaviour. Based on the findings, it was possible to draw a profile of consumers in a particular convenience lifestyle segment based on a set of CFL factors. Consumers have developed patterns in their day-to-day lives, which tend to be stable. This means that

some people may buy the convenience option in one context and not rely on convenience in other situations. Four consumer groups were identified:

- (1) 'food connoisseurs' who are quite adventurous in their food habits and enjoy eating out and the social aspects of eating. They are not particularly disposed towards the use of convenience foods nor do they hold a positive attitude towards convenience foods;
- (2) 'home meal preparer' who are truly organised in every aspect of food-related activities. They are not predisposed towards the use of convenience foods to make their lives easier. Similarly, they do not hold a positive attitude towards convenience foods. The home meal preparers are the least likely to seek out ways of making their lives easier regarding food-related activities.
- (3) 'kitchen evaders' are the most time pressured consumers and look towards convenience foods to satisfy an increasing proportion of their food needs. They hold the most positive attitude towards convenience foods and they are important customers for convenience foods.
- (4) 'convenience-seeking grazers' who also hold a positive perspective in relation to convenience food and saving time and energy regarding food activities. Price checking when shopping for food is a distinctive characteristic of this group and they also have a tendency to plan their food shopping in advance.

The CFL segments were subsequently compared on the basis of a series of statements pertaining to their attitudes towards ready meals and takeaway meals. The kitchen evaders were more positive in their attitudes about ready meals and takeaway meals than any other segment. The convenience-seeking grazers were quite positive about ready meals, although not to the same extent as the kitchen evaders. In contrast, the home meal preparer had the least positive perception about ready meals and takeaway meals, while the food connoisseurs were also less positive about these products. The convenience-seeking grazers and the kitchen evaders were ranked as the most frequent purchasers of convenience foods, while the home meal preparers were ranked as the group that most frequently cooked a meal from ingredients. Significant differences were identified between the four segments across all of the demographic characteristics.

Given the ever-increasing demand by consumers for convenience, the focus of food manufacturers should not just be confined to the time and effort saving dimensions of a convenience food product, but should also centre on the other convenience factors that were identified. Indeed, the integration of these other factors into the marketing mix could serve as a means of differentiation. Convenience food manufacturers should also appreciate that convenience represents slightly different meanings to different segments of consumers. The information provided by this study is thus useful for those manufacturers who seek to

use 'convenience' as a means of gaining a competitive advantage or for differentiation.

The findings of this study indicate that consumers vary not only in their food-related lifestyles but also more specifically in relation to their convenience lifestyles. This implies that marketing managers should take into account these differences in consumption values when communicating with the various consumer segments. The information available in this paper gives industry an insight into the segments and suggests how they could communicate more effectively with targeted segments. Members of the project team have developed a quick method for identifying cluster membership for Ireland and Britain (De Boer et al., 2004). Furthermore, in agreement with a Danish company, an electronic method has been demonstrated to the Irish food industry. Further information on these approaches is available from Ashtown Food Research Centre.

For the food connoisseurs, for example, communication strategies should focus particularly on fun and enjoyment elements in the context of meal preparation. These consumers are keen to cook for enjoyment purposes, they love cooking, and eating and food has an important role to play in an entertainment sense. An opportunity for food manufacturers might present itself in the merchandising of primary meal ingredients with recipe cards.

Freshness is of the utmost importance to the home meal preparer and thus emphasising the freshness aspects of a product should be an important element of the communications strategy. Enjoyment of meal preparation and cooking should also be central to the development of an advertising strategy. Product information is very important to these consumers, which has implications for labelling and the display of products.

When targeting the kitchen evaders, communication strategies should focus on highlighting convenience relating to ease of purchase and preparation of food. Convenience foods should be promoted as products that are easy to prepare, can be cooked very simply, do not take long to prepare and save on washing up. For example, for a manufacturer of ready meals, the major benefit of these products should be emphasised as the speed and ease with which these products can be cooked. Portion size should be an important consideration, as these individuals tend to select convenience foods as a solution to throwing away food after a meal. There is also a potential opportunity in the arena of home meal replacements, for example, easy grab meal bags that can be simply picked up by the consumer.

Hand held snacks might provide a lucrative opportunity for manufacturers targeting the segment of convenience-seeking grazers. Thus hot or cold products prepared for immediate consumption and suitable for eating on the move would be appropriate, whereby the only activities are that of purchasing the product and actual consumption. Products should be of a sufficient portion size as these snacks are more often consumed as main meals. Because snacking is a more defined eating pattern for these

consumers, it is important that these products are nutritionally balanced as formal meals are being replaced with more structured, regular and lighter periods of eating.

Based on the results, there is the opportunity for food manufacturers to offer specific product offerings and develop communications strategies to target each of the identified segments that address the desired benefits sought by each of the food-related lifestyle segments and the convenience lifestyle segments. Moreover, whether or not convenience is of importance to a particular group, it is vital for food manufacturers to realise that the quality of foods cannot be compromised. This is illustrated by the fact that 89% agreed that it is important that food products should be fresh and 93% believed that it is important for foods to taste good.

The results on reported behaviour suggest that, while the segmentation based on CFL may be suitable for behaviours related to the purchase and consumption of ready meals and takeaway meals, and indeed the propensity to cook meals from ingredients, it may not be suitable for analysing meals consumed outside the home. This may be because eating out in restaurants, for example maybe more strongly related to the social aspects and less to convenience dimensions. This is consistent with the findings of De Boer et al. (2004) and Cullen (1994) that eating out in restaurants can be perceived as a social event whereas convenience eating is associated with meals and snacks that give the consumer more time for other activities.

The authors acknowledge that the methodology used to identify the CFL segments is exploratory and recommends that future work could concentrate on the further development and validation of such a methodology for the convenience food industry. This could provide better and more relevant consumer information for companies involved in the convenience food sector. It is not known if the results hold across other EU countries as this study was conducted specifically to look at consumer attitudes to convenience in Great Britain. However, further work is recommended to cross-culturally validate the measurement instrument, as a cross-culturally valid measurement instrument is a precondition for cross-cultural comparison of results (Grunert et al., 1998).

There are some limitations relating to the analytical techniques used in this study. Firstly, EFA was used in this study. Future work could consider the use of confirmatory factor analysis alongside the exploratory approach. The authors acknowledge that initial analysis of the reported behaviour of the segments could have been strengthened using the Kruskal–Wallis rank test and future studies might consider the use of this one-way analysis of variance by ranks method. Although the clustering procedure used here had been employed in previous segmentation studies, the overall analysis would have been significantly strengthened through the use of additional clustering methods. In particular, the authors recommend the use of a non-hierarchical clustering method in deciding the number of clusters to retain and thus refine the final cluster solution.

Studies using MEC theory and laddering to investigate the motivational cognitive networks of the CFL segments in relation to their convenience food purchase and consumption behaviour would provide a deeper understanding of consumers' deeper motivations for purchasing or not purchasing convenience foods. De Boer et al. (2004) conducted a study in the Republic of Ireland that focused on two FRL segments that were identified as high-frequency purchasers of convenience foods: the hedonistic and the adventurous consumer segments. The objective of the study was to obtain an understanding of how these particular consumers relate the prepared attribute of convenience foods to obtaining higher order values in life.

One of the problems associated with market segmentation as a concept is the conflict that arises between the need to identify statistically valid segments in a particular area and the actual incorporation of the information from market segmentation into the marketing programme of a company. Thus, future work should concentrate on how the information generated from the identification of CFL segments can assist in the development of a food company's marketing strategy. Thus, an experimental marketing strategy that is based on the CFL segments would provide a practical insight into the actual usefulness of each of the lifestyle segmentation methods. This would provide an important input to the direction of future research into which instrument is more insightful for the convenience food market. Furthermore, this would provide useful information as to which approach could be adopted if looking at other sectors in the food industry.

The sample only accounted for the chief food purchaser and meal preparer in the household, thus excluding spouses and younger people, who are also potential purchasers of convenience food products. Thus the study focused on customers as consumers and the attitudes of non-buying consumers is not known. Also, it might be interesting to conduct interviews with non-purchasing consumers of convenience foods to explore their motivations for consuming convenience foods.

In terms of contribution to the academic literature, this paper presents a useful extension to the segmentation literature available, particularly in relation to lifestyle methods of segmentation. The factor analysis provided a limited data reduction, probably reflecting the diverse set of factors influencing the demand for convenience foods. This outcome also suggests other approaches including multidimensional scaling should be considered in future analysis.

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