



Food information presentation: consumer preferences when eating out

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1 Food information presentation: consumer preferences when eating out

3 Abstract:

4 Purpose;

5 Advances have been made in the provision of nutritional and ingredient information on packaged
6 food, however there is a need to translate this to eating out reflecting consumer desire for greater
7 transparency and knowledge of menu content. **The aim of this study is to assess consumer's**
8 **preferences for food information presentation in four European countries (UK, Greece, Denmark,**
9 **and France) in a workplace dining setting.**

10 Design;

11 This study focuses on work-place canteens since the regularity in which they are used provides an
12 important context and potential for behaviour change. An exploratory phase designed iteratively in
13 collaboration with experts, end-users and researchers (qualitative) informed a survey (quantitative)
14 conducted in four European countries. The survey was used to examine workplace diners'
15 preferences towards food information presentation.

16 Findings;

17 Differences were found and clustered (n=5) to 'Heuristic Processors' (33%) 'Brand orientated' (25%)
18 'Systematic Processors' (17.3%) 'Independent Processors' (16.1%) and 'Tech-savvy' (8.6%). Dual
19 process theories were used to analyse the findings and produce new insight into how menu
20 information can be most effectively delivered.

21 Originality;

22 When eating out consumers struggle to make choices or make the wrong choice from a health
23 perspective, partly caused by a lack of nutrient profile information as well as other criteria of
24 concern. Giving catering managers the understanding of preferred communication channels can
25 enable a more competitive operator. Traffic light labelling was the optimal presentation with the
26 opportunity for consumers to discover more detailed information if desired. For the first time this
27 research has given operational clarity whilst allowing food providers to be considered as part of
28 corporate health.

29 **Key Words:** Food Labelling; Information Processing; Foodservice; Healthy Eating

32 1. Introduction

33 Eating out has become an integral part of modern life for many people with one in six meals
34 consumed out of home in restaurants, cafés or public food settings such as workplace canteens

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3 35 (Bray and Hartwell, 2017). However, compared to meals prepared at home, the consumer often has
4
5 36 very little control or knowledge of the ingredients, their provenance or nutrient profile. In fact, food
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7 37 consumed outside the home is typically of poorer nutritional quality and served in larger portions
8
9 38 (Sinclair et al., 2014). There is a positive association between the rise in eating out, higher energy
10
11 39 intakes and increasing rates of obesity, a major health and wellbeing societal challenge in many
12
13 40 Western nations (Kim et al., 2014). This is of particular importance in the context of the workplace
14
15 41 where the contribution of meal served could be an important element of the overall diet due to the
16
17 42 frequency of use with many canteens being visited for daily main meal consumption (Mintel, 2017).
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19 43 Public food settings particularly are environments where there is an increased offer (availability),
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21 44 placement and promotion (accessibility) of unhealthy calorie-dense food and beverages (Evenhuis et
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23 45 al., 2018).

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25 46
26 47 A key approach to addressing this nutrition-related public health issue is the provision of information
27
28 48 as a means for encouraging consumers to make healthful dietary choices (Alexander et al., 2010).
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30 49 However, this data is not always evident in 'eating out' settings and hence forms the research focus
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32 50 for this paper. In the context of foodservice providers such as workplace canteens, posting calories
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34 51 on menus and menu boards and providing other nutrient information is seen as a way to fill this
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36 52 critical information gap and enable a healthier workforce. However, significant debate exists
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38 53 amongst stakeholders as to the best way of providing such information. Fernandes et al. (2016)
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40 54 contest that the term menu labelling can be confusing in itself, where some authors employ it to
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42 55 denote calorie information while others use it in the broader sense to designate 'healthfulness'. For
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44 56 the purpose of this paper, food information will encompass nutrient and ingredient detail and any
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46 57 health description such as utilising symbols. Notwithstanding definitions, the primary aim of menu
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48 58 labelling should be to provide consumers with information that allows them to make informed
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50 59 choices. This would, at the very least, support consumers' rights to know what ingredients are in
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52 60 their dishes. A secondary aim of menu labelling should be to promote healthy eating, since it not
53
54 61 only encourages the reduction and prevention of obesity and other chronic diseases but also
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56 62 promotes good health (Fernandes et al., 2016).

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58 63
59 64 A review by Seenivasan and Thomas (2016) of studies that focus on the effectiveness of nutrition
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61 65 labelling schemes in supporting more healthful meal choices in restaurants indicates mixed results.
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63 66 While authors have considered the information consumers would like to receive (e.g. Price et al.,
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65 67 2016), others have highlighted limitations in its accessibility (Mai, 2013). Therefore, the issue may, in
66
67 68 part, be due to presentation format which is not always audience friendly (Soederberg Miller, 2014).
68

69 In this respect, it has been suggested that current understanding of consumer perspectives is
70 insufficient (Kleef and Dagevos, 2015), and a void remains in research which examines the impacts of
71 different nutrition information formats on consumers' attitudes and dining intention (Sun, 2013).

73 1.1. Study Objectives

74 This study assesses consumer's preferences for food information presentation in four European
75 countries (UK, Greece, Denmark, and France) in a workplace dining setting. A segmentation
76 approach is adopted to differentiate between consumers with distinct information format
77 preferences and a range of socio-demographic characteristics. Dual process theories, such as the
78 Heuristic Systematic Model (Chaiken, 1980), are employed as a theoretical frame to provide insight
79 into information processing styles that correspond with preferences for distinct ways of delivering
80 food information. Findings are of interest to foodservice managers and consumer behaviour
81 academics with particular focus on information processing.

83 2. Literature Review

84 2.1. Information provision and consumer impact

85 Eating away from home is increasingly being used for daily main meal consumption (Seenivasan and
86 Thomas, 2016), and workplace dining can be a significant environment in influencing the promotion
87 of a healthy diet (Ni Mhurchu et al., 2010). A vibrant economy depends on a healthy population.
88 Without this, employers lose out on worker productivity and citizens are deprived of potential
89 longevity and quality of life (Zwetsloot et al., 2010); hence the workplace is in a unique position to
90 have an impact on society. Beyond this, canteens supply meals for a regular clientele, which could
91 have implications for consistent exposure to nutrient information and lead to a learning effect
92 (Bollinger et al., 2011), resulting in improved nutrition knowledge. A healthy and vital workforce is
93 an asset to any organisation and initiatives within this environment reflect health promotion
94 strategies advocated by the World Health Organisation (2004), furthermore health and well-being at
95 work are crucial elements of the overall EU 2020 strategy for growth, competitiveness and
96 sustainable development.

97 Effective menu labelling has been proposed as a means to influence employees' consumption of less
98 healthful foods by enabling them to make better-informed decisions and healthier choices
99 (European Union, 2011). There has been a marked increase in the amount of information provided
100 to consumers (Grunert et al., 2012), where Regulation within Europe, (EU No 1169/2011) has
101 required the labelling of the presence of 14 allergens for pre-packaged food and catered food

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2
3 102 (European Union, 2011). The 2010 Patient Protection and Affordable Care Act, in the USA goes
4
5 103 further, requiring nutritional information to be posted in many restaurants and fast food places
6
7 104 (Gregory et al., 2014). A similar requirement is being debated in Ireland (FSAI, 2016).

8 105
9 106 Despite the increased presence of information and many studies that seek to determine the
10
11 107 effectiveness of labelling in promoting healthier food choices, there is a lack of consensus on the
12
13 108 outcome of these efforts in eating out. In their review, Seenivasan and Thomas (2016) note that
14
15 109 while some studies report a modest drop in the caloric value of food purchased per transaction after
16
17 110 menu labelling (Krieger et al., 2013), others observe no impact on purchase behaviour (Vyth et al.,
18
19 111 2011), although it is suggested that consumers found the information valuable and appreciated its
20
21 112 presence (Parikh and Behnke, 2015). Given the societal importance of healthy eating and the
22
23 113 inconsistency between previous studies, there is a clear need for further investigation in this area.

24 114

25 115 2.2. Dual Process Theory

26 116 Food consumer behaviour is highly complex with many external and internal influences on
27
28 117 perception, attitude and action. Product attributes, characteristics of the consumer and the eating
29
30 118 environment all play key roles in food-related decisions. In respect of nutrition labelling schemes out
31
32 119 of home, there is lack of understanding of consumer data processing, and preferred format (Kleef
33
34 120 and Dagevos, 2015). **Dietary habits and food choices are the result of decisions and actions that are**
35
36 121 **based on both routines that require very little active decision-making and reflective, elaborate**
37
38 122 **decision-making where choice options are carefully considered (Skov et al, 2013).** While the extant
39
40 123 literature provides evidence of the importance of menu information, studies assessing type and
41
42 124 format remain limited (Price et al., 2016). Central to this are the information processing theories
43
44 125 which provide insight into psychological tracking and underlying ways in which consumers make
45
46 126 information judgments and other choices (Lachman et al., 1979). Specifically, the dual-process
47
48 127 theories of information processing, such as Heuristic-Systematic Model (Chaiken, 1980), suggest that
49
50 128 people attend to information in one of two distinct systems (Kahneman, 2011). 'System 1', is
51
52 129 characterised by fast and automatic thinking, which uses heuristics or gut feelings to arrive at
53
54 130 decisions without deliberation. These consumers would respond to high directedness of labels such
55
56 131 as quality assurance labels. 'System 2', implies slow and careful processing which involves logic, and
57
58 132 attentive consideration, to arrive at an optimal decision given the resources (Kahneman, 2011).
59
60 133 These consumers would respond to low directedness and detailed information. **Consumer behaviour**
61
62 134 **and information processing conceptual models posit that communication and information efforts, if**
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64 135 **being attended to and properly processed, move individuals through a sequence of hierarchical**
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66 136 **stages, often referred to as a "hierarchy of effects". This concept indicates the different mental**

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2
3 137 stages that consumers go through after being exposed to information and when responding and
4 138 making choice decisions. It is generally accepted that a structure includes a cognitive response
5 139 (learning, knowing), an affective response relating to attitude formation (thinking, feeling) and
6 140 (ultimately) a behavioural response (intending, doing), the sequence and separation of these
7 141 hierarchical steps depends on person-related, product-related and situational factors (Thaler and
8 142 Sunstein, 2008).

9 143 Despite early economic assumptions of decisions being guided in a systematic manner, evidence
10 144 accumulated over the past few decades in areas of behavioural economics, social psychology and
11 145 neuroscience suggest that much of human behaviour is governed by heuristic system thinking
12 146 (Cohen and Babey, 2012). This includes food in general, and out-of-home eating settings where
13 147 decisions tend to be spontaneous, rapid, and influenced by heuristic cues (Cohen and Babey, 2012).
14 148 Due to bounded rationality (Simon, 1956), people use mental short-cuts to free up cognitive
15 149 resources. Another determining criterion is the level of involvement (Chaiken, 1980), which leads to
16 150 heuristic processing when low. In the context of food decisions taken in a workplace canteen, one
17 151 might suggest this strategy is likely to dominate as it is a behaviour performed routinely, with low
18 152 involvement, lack of time, and overloaded cognitive resources (e.g. thinking of work related tasks
19 153 and a busy social setting with numerous stimuli competing for attention). Under other conditions,
20 154 such as when attempting to eat more healthfully after an indulgent holiday period for example,
21 155 individuals may be more motivated or involved, and in consequence switch to systematic processing.
22 156
23 157 These dual process theories have been influential in the field of attitude change and persuasion,
24 158 involving multiple applications in the context of public health and behaviour change (Thorgeirsson
25 159 and Kawachi, 2013) including labelling on packaged goods (Muller and Prevost, 2016). A recent
26 160 review (Sanjari et al., 2017) acknowledges that the effectiveness of label formats are influenced by
27 161 the consumers' dominant processing system which in addition is a function of the specific dining
28 162 context.

29 163

30 164 2.3. Nutrition Labelling

31 165 There is evidence to suggest that consumers are increasingly demanding greater nutritional and
32 166 ingredient information (JungJin and Cranage, 2010), providing a clear challenge for operators to
33 167 deliver this in a meaningful and comprehensible manner. Van Rijswijk and Frewer (2012) highlight
34 168 that to be effective, information must be concise and simple, and Mazurkiewicz-Pizło and Pachuca-
35 169 Smulska (2012) similarly support the need for information to not only be reliable, accurate and
36 170 complete, but importantly communicated in a clear manner. Grunert and Wills (2007) suggest that

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3 171 consumers require three key things from labels; they must be simple to use, include underlying
4
5 172 nutritional information and not be unduly coercive.

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8 174 Within the EU the most commonly adopted formats used to communicate the nutritional content
9
10 175 and relative healthfulness of foods are summarised in table 1. These formats range from detailed
11
12 176 numerical description of nutrients in a table format (low directedness) to logos which indicate
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14 177 quality criteria (high directedness). Each is associated with different levels of 'directedness' and
15
16 178 amount of processing effort, cost and involvement required of consumers. Whilst some provide
17
18 179 extensive information and could be perceived as complicated and providing an overload of
19
20 180 information; others, present a quick indication which enable rapid processing, but may leave
21
22 181 questions about nutrient detail. Such an example could be brands which can be seen as an
23
24 182 information collecting tool, influenced by consumers' experiences with the brand, associations made
25
26 183 from communications they received from the brand or social experience of the brand (Van Osselaer
27
28 184 and Janiszewski 2001). These associations can range from making assumptions about taste, quality
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30 185 (nutrition) to the origin of products (Elangeswaran and Ragel 2014).

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32 186

33 187 Insert table 1 here

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36 189 Muller and Prevost (2016) differentiate between labelling schemes such as Guideline Daily Amount,
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38 190 Traffic Light and Key Hole system (a health logo format) based on symbol type (chromatic versus
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40 191 numerical), granularity (aggregated versus multi-entry), and baseline (daily diet, family of products
41
42 192 or absolute number of key nutrients per product). While the issue is complex, they propose that
43
44 193 simpler formats such as colours, fewer symbols and nutritional facts should be easier to process than
45
46 194 more complex tables of data due to cognitive limitations and pressures involved in processing.
47
48 195 Deciding on these formats is critical as they have implications for the cognitive processing required
49
50 196 from a consumer and ultimately their effectiveness in influencing behaviour.

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52 197

53 198 It is accepted that several inferences exist in the implementation of nutritional information on the
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55 199 menu; it could be expensive, time-consuming and logistically difficult (Price et al. 2017). From a
56
57 200 communication perspective, complexity flows from the difficulty of representing complex
58
59 201 information without leading to 'visual clutter' (Josiam and Foster, 2009). Crosetto et al. (2016)
60
202 suggest that the Traffic Light format may be more beneficial for situations in which heuristic and
203 intuitive side of human nature dominates, and Guideline Daily Amount suits systematic processors
204 better.

205

Previous studies have identified the type of information consumers would like to receive (Price et al., 2016), which imposes a significant challenge to providers to make varied and detailed information available in a way that enables consumers to process and comprehend it in a timely manner. Even if two consumers wish to receive the same information, they may be dissatisfied by the way it is provided (Nocella et al., 2014). This emphasises the necessity to explore how the information can be conveyed optimally to have a desired effect.

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It is clear that consumers are increasingly demanding more information and transparency about the food they consume. Initiatives are starting to provide for this; however research into the impact of enhanced food information on choice has reported mixed results. Existing literature has not sufficiently examined how consumers process the message, or assessed the most effective format. By examining food labelling through a consumer information processing lens (Heuristic Systematic model) new understanding can be developed into the most effective use of directive and non-directive food messaging when eating out. This in itself will give operational clarity whilst allowing food providers to be considered as part of corporate health.

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3. Methods

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An exploratory collaboration with experts, end-users and researchers, thereby balancing scientific and practical considerations was used to inform a deductive multi-country survey (June and July 2015). The population was defined as employees who use the canteen at their place of work regularly, at least twice a week, in four European countries (UK, Greece, Denmark, and France).

228

There is a North/South gradient in Europe with a higher understanding of nutritional labelling found in UK and Denmark, and more limited understanding in France and Greece. An abductive process was used in the study design, where the inductive results of the focus groups served as inputs to the deductive survey. More specifically, the study adopts a sequential transformative mixed-method approach (Creswell et al., 2003). This is in line with the idea that qualitative findings can inform the hypotheses to guide the empirical analysis.

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3.1. Exploratory phase – Focus Group discussions

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Focused group discussions (n=8) were conducted with employees in UK, Greece, Denmark and France (2 focus groups in each) recruited by the key researcher in each country. Participants were

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3 239 sampled using convenience sampling through the contacts who were working in companies where a
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5 240 canteen for staff use was provided. One of the inclusion criteria for taking part in the focus groups
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7 241 was that participants had to eat regularly at their place of work which was defined as twice per week
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9 242 or more. All groups were convened in the place of employment, moderated by a native speaker and
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11 243 lasted approximately 60 minutes. A cross-national approach was adopted to reflect cultural
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13 244 perspectives to preferred formats of food information, extend applicability of findings, and assess
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15 245 whether any differences in views may provide some explanation of the inconsistency of previous
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17 246 study findings.

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248 The study and questions were agreed by the local Ethics Committees of each country. Forty
249 participants took part, twenty-nine females and eleven males, with an age range of 22-64 years. A
250 common discussion guide was used to ensure continuity across all focus groups. Questioning
251 focused on food information formats, and was informed by the literature (Table 1). The purpose of
252 this study was to validate whether previous studies have identified and examined all key formats
253 relevant to consumers, and that the subsequent quantitative data collection instrument was
254 comprehensive and grounded in respondents' vocabulary ensuring consistent and accurate
255 understanding. The emanating data were used to inform the design of the empirical study, where
256 different forms of information presentation were used as experimental variables.

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3.2. Empirical study - Survey

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260 Best-worst scaling is developed from the random utility theory proposed by McFadden (1980), who
261 posits that a preference for one object over another is a function of the relative frequency in which
262 this object has been chosen over the other. A key strength of using best-worst scaling is that it
263 provides information about the top and bottom rated object in each choice set giving more
264 information about the rating of objects in each set. As the most and least preferred option is
265 selected by respondents, this method does not suffer from the scale bias associated with rating
266 based scales (Loose and Lockshin, 2013). Therefore, it is particularly beneficial in cross-national
267 research as undertaken here where previous research has found that participants from different
268 countries make different use of verbal rating scales, and consistent interpretation of rating scales is
269 unlikely (Baumgartner and Steenkamp, 2001). The technique has already been used and validated in
270 the context of food labelling (de-Magistris et al. 2017).

271 The survey questionnaire comprised two parts: firstly; food information formats, derived from the
272 literature and exploratory phase, representing both the heuristic and systematic communication

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3 273 approaches were subjected to a best-worst scaling experiment. Secondly, socio-demographic
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5 274 characteristics (Sinclair et al., 2014) were gathered to assess their influence on dish choice. The best-
6
7 275 worst experiment presented respondents with the six formats of messaging identified by the
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9 276 literature and validated in the focus groups (see Table 1). Each attribute appeared alongside each
10
11 277 other option and is shown a total of three times across all choice sets. Respondents selected their
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13 278 most and least preferred option in each set.
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15 279 To control for possible ordering effects and context bias, 10 different versions of the survey
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17 280 questionnaire were generated and administered randomly (Furlan and Turner, 2014).
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282 *3.3 Sampling and data collection*

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21 284 Email invitations were sent out to various employers in the four countries who offer workplace
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23 285 canteens, asking them to distribute the survey to their employees through their intranet.
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25 286 Participants received e-mail invitations to take part in the survey. The questionnaire was developed
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27 287 in English, translated into Greek and French by native speakers, and back translated to check
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29 288 accuracy and consistency of understanding between each country. In Denmark, the English version
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31 289 of the questionnaire was distributed since this was the working language of the employees sampled.
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33 291 *3.4 Analysis*

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35 293 A two-step data analysis process was used ([Sawtooth Software](#)); information format preference was
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37 294 calculated on an individual level and per country. Hierarchical Bayes (HB) application of a
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39 295 multinomial logit model was applied to estimate individual level utility scores. In order to compare
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41 296 format preference per country, a rescaling approach was used, where raw HB logit scaled scores
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43 297 were directly related to probabilities of choice with overall scores summing to 100 (Orme, 2009).
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45 298 The individual level raw best-worst data was subject to latent class cluster analysis using Latent Gold
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47 299 3.0. Latent class analysis was adopted to identify relationships between observed variables on the
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49 300 basis of a smaller number of latent variables (Rindskopf, 2009). The best-worst utility scores were
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51 301 subject to latent class analysis to detect the preferred information format when making food
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53 302 choices. Latent class analysis can identify homogenous sub-groups of the sample population in
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55 303 respect to consumer preferences shown towards the tested attributes (Casini and Corsi, 2008).
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57 304 Moreover, latent class analysis is robust to different scale types, which allows clustering of individual
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59 305 choice data in association with socio-demographic data without changing the format of this data. In
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306 contrast to traditional cluster analysis, latent class cluster analysis, does not assume that the data is

307 normally distributed and linear (Chrysochou et al., 2012). Latent class analysis allows cross-country
 308 segments to be analysed rather than merely using each country as segments (Lockshin and Cohen,
 309 2011). The general latent class segmentation model is as presented in Equation 1:

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$$311 \quad f(Y_{nj}|\emptyset) = \sum_{(S=1)}^S \prod_S f_S(Y_{nj}|\varphi_s) \text{ with } \sum_{(S=1)}^S \prod_S = 1 \text{ and } \prod_S \geq 0 \quad [1]$$

312

313 where S= number of latent class clusters, \prod_S is the probability of belonging to a S latent class, Y_{nj} is
 314 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}
 315 given the vector of parameters φ_s (Vermunt and Magidson, 2005). Every observation can then be
 316 classified in the latent class (i.e., group) based on a higher probability of belonging to such a class.
 317 The model is probabilistic and not deterministic, as every observation has a different probability of
 318 belonging to each latent class.

319

320 4. Results

321 The sample consisted of 452 employees, UK (n=152), Greece (n=100), Denmark (n=100) and France
 322 (n=100) who had access to a canteen at their place of work. Most of the employees worked full time
 323 (60.4%) and their employment fell under the occupations classification of Technicians and Associate
 324 Professionals (74.1%) (International Labour Organization, 2012). There was a slight female bias in the
 325 sample (61.1%), and younger workers (20-29) were over represented (51.3%) who had completed
 326 some form of higher tertiary education (74.1%). Further socio-demographic characteristics of the
 327 sample are presented in Table 2.

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329 Insert table 2 here

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331 Country specific results are presented in Table 3 which outlines the food information formats
 332 derived from the exploratory phase and shown to respondents during the questionnaire.

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334 Insert table 3 here

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336 The results are consistent across the sample, in that Traffic Light Labelling, Information box and
 337 Quality Assurance are ranked in the top three for all four countries. The results are similar between
 338 the different countries with the UK, Denmark and France all preferring Traffic Light Information,

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3 339 followed by a strong preference for Quality Assurance cues. In Greece, interestingly, there is a higher
4 preference for Interactive Information compared to the other countries.
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7 341 The individual-level best-worst utility scores were subject to latent class analysis to identify the
8 preference of the sample towards the six different ways of providing food information (Table 4).
9 342
10 343 Latent class cluster models were estimated from two to five clusters and the log-likelihoods (LL) and
11 Bayesian Information Criterion (BIC) of each model compared. The most parsimonious model
12 344
13 providing an adequate fit in this case was the model with five clusters.
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16 346 Insert table 4 here
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19 347 All clusters (Table 5) were defined based on the revealed importance of each information format
20 that has been identified by the individual-level Best-worst scores. The scores shown are a preference
21 348 judgement presenting the holistic value or path-worth for each of the criteria tested in this study.
22 349
23 Negative weights should be read not as negative influences but as a deviation from the average zero
24 350 utility to indicate a less important attribute. All attributes tested for in the survey are significantly
25 351 different between clusters (p -values <0.05), and therefore useful in segmenting the participants into
26 352 five clusters. Cluster 1 was tagged 'Heuristic Processors' (33%) as these respondents' value easy to
27 353 find data and are likely to make sense of this. Cluster 2 was tagged 'Brand orientated' (25%) as these
28 354 respondents are persuaded by Brand authority. Cluster 3 was tagged 'Systematic Processors' (17.3%)
29 355 as these respondents' favour Footnotes, Information boxes and Interactive Information. Cluster 4
30 356 was tagged 'Independent Processors' (16.1%) and is a mixture of where heuristic and systematic
31 357 processes occur simultaneously. Lastly, cluster 5 was tagged 'Tech-savvy' (8.6%), and as the name
32 358 implies these are respondents who indicate a high preference for Interactive Information.
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35 360 Insert table 5 here
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46 362 Table 4 shows the utility coefficients for the different information provision formats, which are zero-
47 centred. Within each criterion and cluster the utility coefficients sum to 0. The p -value associated
48 363 with the Wald statistic for all six information provision formats is lower than 0.05, therefore all six
49 364 variables are useful in segmenting the sample into five different clusters. Socio-demographic
50 365 differences between the clusters were measured by chi-square. Dietary requirements, employment
51 366 status and participant country are significant ($p < 0.05$) whereas gender, age, country of birth,
52 367 household type, household size, occupation and highest level of education were not significant ($p >$
53 368 0.05). Therefore, to present a parsimonious estimation, socio-demographic variables that are not
54 369 significant have been omitted from Table 5.
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3 371 *Cluster 1: Heuristic Processors*

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5 372 The first cluster is the largest with 33% of participants and characterised by a high preference for
6 373 Traffic Light Labelling (3.27) and Brands (0.48). Traffic light labelling gives quick at-a-glance nutrition
7
8 374 information, whilst brands are a proxy for information about other quality aspects. Additionally,
9
10 375 traffic light labelling is generally well received and many consumers are accustomed to this type of
11
12 376 labelling through media and retail exposure. This cluster was named heuristic processors, as easy to
13
14 377 find data is considered and processed. Information Boxes (-1.31) were the least preferred ways of
15
16 378 receiving food information, which imply more processing effort. Employees from the UK form the
17
18 379 biggest part of this cluster (45.1%) whilst Danish employees form the smallest part (8.1%). This
19
20 380 cluster is predominantly female (64.4%) and has the highest proportion of employees that do not
21
22 381 have any dietary requirements (87.9%) for whom quick, directive and semi-directive information is
23
24 382 sufficient.

25 383 *Cluster 2: Brand Orientated*

26 384 Cluster 2, tagged as Brand Orientated is, the second largest cluster accounting for 25% of all
27
28 385 respondents, and defined through participants' choice of Brands (2.96) and Quality Assurance (1.01).
29
30 386 In this cluster Traffic Light Labelling (-1.39), was least preferred. All countries are similarly
31
32 387 represented in this cluster. Most employees in this cluster are aged between 20 and 29 (59.3%) and
33
34 388 have completed higher tertiary education (86.7%). This cluster has the highest percentage of
35
36 389 employees with religious dietary requirement (5.3%), which might make use of quality assurance to
37
38 390 establish the suitability of food products. Food brands are prominent in consumers' everyday lives
39
40 391 and act as a heuristic signal when making food decisions and are recognised for their effectiveness of
41
42 392 highlighting credence quality attributes. As a salient decisional factor, perceived quality influences
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44 393 consumer's behavioural intention through attitudes to a positive brand image.

45 394 *Cluster 3: Systematic Processors*

46 395 The third cluster containing 17.3% of the participants, termed Systematic Processors, favour
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48 396 Footnotes on menus (1.74), Information Boxes (1.56) and Interactive Information (0.4). Systematic
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50 397 Processing tends to be applied when there is a greater ability and willingness to process more
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52 398 information. There is, amongst this segment, the least preference for more directive ways of
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54 399 providing food information such as Brands (-2.86) as these might not provide the amount or
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56 400 relevance of information desired. Whilst Denmark has the largest membership of cluster 3 (34.6%),
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58 401 France is the least present (12.8%). This cluster is evenly split into employees working full time (50%)
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60 402 and part time (50%). It has also got the highest membership of participants that have special dietary

requirements such as following a particular diet not because of allergies or health reasons but out of choice (15.4%) compared to the other clusters.

Cluster 4: Independent Processors

Cluster 4, tagged Independent Processors, encompasses 16.1% of the participants. In this cluster, there is a high preference for Information Boxes (2.09), Footnotes (1.45), Traffic Light Information (0.23) and Brands (0.15). Whilst in clusters 1 and 3 a distinction is made between heuristic and systematic processors, it is possible for both to occur simultaneously. A preference for information that is processed systematically is driven by motivation, for example, to select the most healthful meal that matches a diet currently followed by an individual. However, this motivation can be overruled by other factors such as time pressure, stress, or pre-occupation with work related tasks. Therefore, non-directive formats might be preferred, but semi-directive systems are also appreciated. Interactive Information (-3.61) and Quality Assurance (-0.29) were less popular ways of providing food information. This cluster is mainly female (65.8%) and although a high number of employees in this cluster do not have any special dietary requirements (74%), it is the cluster with the highest number of employees suffering from allergies (12.3%).

Cluster 5: Tech-savvy

The Tech-savvy segment is the smallest cluster and indicates high preferences for Interactive Information (4.51) and Quality Assurance (0.38). Hereby, Traffic Light Labelling (-1.7) was least preferred. The Tech-savvys are the only group that has a higher proportion of men (51.3%) compared to women (48.7%). Although this cluster has a high proportion of employees aged 20-29 (48.7%), there are also more people aged over 60 (5.1%) in this cluster compared to the other groups. This cluster has a high Greek membership (53.8%) but a low membership of Danish employees (2.6%). Smartphone applications and technology are present in consumers' everyday lives and this different approach to information provision opens new channels of communication between food suppliers and consumers. One of the possible benefits consumers see in this type of information provision is a greater opportunity for personalisation.

5. Discussion

Currently there is much interest regarding the provision of food out-of-home to ensure consumers have access to clear and accurate information about the calorie content of dishes on offer (Public Health England, 2018). Workplace food settings particularly are environments where there is an increased offer (availability), placement and promotion (accessibility) of unhealthy calorie-dense food and beverages (Evenhuis et al., 2018). In a pooled analysis of studies that included food labeling on menus, food labelling was found to reduce consumers' intake of; calories by 6.6 percent, total fat

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3 436 by 10.6 percent and other unhealthy food options by 13 percent (Shangguan et al, 2019). Even
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5 437 knowledgeable individuals often struggle to estimate the number of calories in canteen meals; thus
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7 438 when diners are confronted with accurate information their attitude towards specific menu items
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9 439 can change, especially for those dishes which are not aligned with expectation. 'Surprising' menu
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11 440 items such as high calorie salads will experience the most dramatic shift in attitude and purchase
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13 441 intention (Ellison et al. 2013). The profile of consumers using labels varies greatly between a
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15 442 preference for directive, simple and graduated labels such as quality assurance logos, to non-
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17 443 directive labels, such as Information boxes as well as chromaticity, i.e. colour coded Traffic Light
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19 444 system. Signpost logos, multiple traffic light labels and labels communicating guideline daily
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21 445 amounts dominate the debate on retail front of pack nutrition labelling (Grunnert and Wills, 2007)
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23 446 but there has been little research of this nature conducted in eating out.
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27 448 The results of this study indicate that in workplace settings, simpler and directive or semi-directive
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29 449 formats such as Traffic Light system or Quality Assurance logos are favoured. In a canteen setting,
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31 450 where the pace of service does not allow complex cognitive processing of in-depth information, such
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33 451 formats may be of particular value (Pettigrew et al. ,2012). Interestingly, it has been reported that
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35 452 respondents viewing information about energy content in addition to traffic light information tend
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37 453 to select meals with significantly lower mean energy content, a reduction of around 120 kcal than
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39 454 those in a no labelling condition (Morley et al., 2013). Whilst other studies have supported the
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41 455 presence of calorie and macronutrient information to significantly affect purchase intention
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43 456 (Mayfield et al., 2014), a comment supported by Park et al. (2013) who found providing nutritional
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45 457 information led consumers to choose healthier foods.
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49 459 Brands and Quality Assurance cues were identified in this study by large segments as attractive
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51 460 communication methods. These are well established labelling approaches that can be used in a
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53 461 canteen setting as they provide direction towards certain quality standards but are not negatively
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55 462 perceived as imposing or forcing meal choice in a particular direction (Hoefkens et al., 2012).
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57 463 Previous research has found that both have at least a partial substitute relationship and can be
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59 464 communicated through the use of a logo (Deselnicu, 2013). Compared to other labelling approaches,
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465 logos that represent a brand or quality assurance, do not overload the menu with too much
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467 information and material provided through brands can be processed more rapidly (Cavanagh et al.,
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469 2014). In addition, obtaining quality assurance, such as in the UK the Soil Association's food for life
catering mark, which aims to raise standards of nutritional and overall food quality, provenance and
environmental sustainability for food served in public sector foodservice (Melchett, 2014), enables

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3 470 operators to lead by example. This acts as an important tool for operators to communicate their
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5 471 commitment to credence quality signals relating to ethical production of food. It is by demonstrating
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7 472 best practice through an independent endorsement that employees can chose dishes confident in
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9 473 the knowledge that ingredients have been sourced in an ethical and responsible way.

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11 475 Not all consumers, however, prefer heuristic information that can be provided through traffic light
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13 476 labelling, brands or quality assurance. This can be attributed to a greater need for information
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15 477 (Fischer and Frewer, 2009) and involvement by Systematic Processors (17.3%), and partly by
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17 478 Independents Processors (16.1%), and the Tech-Savvy (8.6%) cluster. Specific dietary requirements
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19 479 present a need for in-depth food information, and systematic processing is used by these consumers
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21 480 when there is little confidence about the judgement derived from information that is provided in a
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23 481 general way (Jooyoung and Hye-Jin, 2009). Consulting detailed information enables consumers to
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25 482 maximise the confidence in their judgement, hence canteen operators need to develop an approach
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27 483 of providing food information that does not overload the menu but still provides sufficient content
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29 484 for those consumers who require more in-depth information. This finding supports the Heuristic
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31 485 Systematic model (Chaiken, 1980) which proposes that involvement, in this case dietary
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33 486 requirement, leads to systematic processing. Moreover, it is possible that due to the inherent
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35 487 simplicity of directive symbols they are considered patronising (Hoefkens et al., 2012). This also puts
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37 488 emphasis on the need to provide additional information to those that seek to match a format to
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39 489 their perceived level of knowledge.

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41 491 As indicated by the Tech-Savvy cluster, consumers have an increasing interest in receiving data in an
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43 492 electronic format. This 'mobile app-etite' can be observed among a rising number of consumers
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45 493 engaging in mobile technology to plan, purchase, and socially share their meals (Doub et al., 2015). It
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47 494 is therefore not surprising that nutrition and fitness apps were the fastest growing and most
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49 495 downloaded category of apps in 2014 (Gratzke, 2015). There is a high interest amongst consumers to
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51 496 track their food intake and self-monitor through tools like wearable sensors or mobile applications
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53 497 (Gratzke, 2015), however, when eating at work, it is not always possible to monitor food intake in
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55 498 this way. Barriers to meeting customer requirements are multi-fold including administrative,
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57 499 practical and motivational. Administrative and practical reasons such as corporate regulations, lack
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59 500 of knowledge of how to portray information and unavailability of information are all identified as
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501 challenges within this sector. Notwithstanding, one of the main drivers behind the popularity for
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503 accessing food information through smartphone apps is the opportunity to receive information that
is both inexpensive and personalised (Vandelanotte et al., 2016). Canteen operators can benefit

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3 504 from adopting a proactive approach that facilitates information sharing in a proactive and dynamic
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5 505 way that addresses consumers' high information demands (Chathoth et al., 2014). However, it is
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7 506 accepted that establishing technological communication with consumers requires investment and
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9 507 motivation on behalf of canteen management, as ICT platforms need to be developed and
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11 508 constantly maintained.

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13 510 Studies have clearly demonstrated that consumers have a strong desire to be more informed about
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15 511 what they are eating (Banterle et al., 2012), and through enabling this, diners will be more confident
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17 512 in the choices that they make, and eating out will, for those who have particular dietary needs,
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19 513 become a lot easier. Industry should seek to develop solutions to ensure that it is possible for
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21 514 consumers to be confident about provision. Further, for some, enhanced information delivery is
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23 515 likely to increase their dining enjoyment. The issues around menu labelling and providing diners
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25 516 with detailed dish information is both contemporary and critical to the current societal challenges of
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27 517 healthy eating and rise in diet related non-communicable diseases. This study offers a substantial
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29 518 focused contribution to the topic, highlighting the effective presentation of food information for
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31 519 individual diners and their likelihood to adopt a Heuristic or Systematic approach. Such knowledge
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33 520 enables operators to deliver information in the most impactful manner.

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35 522 **5.1. Implications for Practice**

36 523 The findings of this research have a number of implications for practice in the provision of food in
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38 524 workplace canteens. Consumers struggle to make choices or make the wrong choice from a health
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40 525 perspective, partly caused by a lack of nutrient profile information as well as other criteria of
41
42 526 concern. The challenge for the foodservice industry is to provide products and services that facilitate
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44 527 and enhance positive food choice in all population segments especially in a canteen where meals are
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46 528 eaten on a consistent basis. Through gaining insight into the perspectives of consumers, information
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48 529 can be provided and in a format that is relevant to enable informed dish decisions. Giving catering
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50 530 managers the understanding of optimal communication channels can enable a more competitive
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52 531 operator. Traffic light labelling was the preferred delivery platform with the opportunity for
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54 532 consumers to discover more detailed information if desired. **Increased information provision may**
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56 533 **also enable transparency and evidence of greater integrity for the food service operator (Price et al,**
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58 534 **2016). Consumers with specific dietary needs are often limited in their choices not just by their**
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60 535 **personal constraints, but also by a lack of information available from serving staff. Catering**
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62 536 **operators that are open and transparent, demonstrate commitment and trustworthiness to**
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64 537 **consumers. Furthermore, even if the actual content is not always used, consumers can be reassured**

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2
3 538 by the presence of such information (Yepes, 2015). Food operators thus will also potentially benefit
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5 539 from increased information provision.
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8 541 **5.2. Implications for Policy**

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10 542 Meals provided in the workplace can form an important part of the overall diet of those who
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12 543 regularly use workplace canteens. The importance of health and wellbeing at work is recognised and
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14 544 forms part of the Europe 2020 strategy for growth, competitiveness and sustainable development.
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16 545 However, information needs to be of relevancy and portrayed in a format that can be utilized by
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18 546 consumers. Better information enables transparency for the foodservice operator while allowing
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20 547 evidence of greater integrity. From a public health and food policy perspective, providing consumers
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22 548 with information at the point of purchase will empower and provide the framework for measured
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24 549 food choice decisions.
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26 551 **5.3. Limitations**

27 552 The work reported here has focussed on workplace canteens using the UK, Greece, Demark and
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29 553 France as examples. Therefore, the context of the four countries, their consumers and stakeholders
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31 554 has an influence on the findings. The respondents taking part in the survey questionnaire were
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33 555 predominantly under the age of 30 years and working in professional or associate professional
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35 556 occupations. Therefore, it is not clear how far the preferences of receiving information represents
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37 557 the views of older employees or employees working in manual labour or blue collar workplaces.
38
39 558 While this study has examined consumer preferences for food information provision, it has not
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41 559 assessed the effectiveness in influencing food choice. There is a likely link between presenting
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43 560 information in the manner the consumer prefers and it being effective in directing choice, research
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45 561 assessing behavioural differences would develop knowledge in the area further.
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49 564 **6. Conclusion**

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51 566 To enable healthy decision making in an eating-out situation, communication with consumers is
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53 567 clearly required, but any such communication should be carefully considered to ensure that it is well
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55 568 understood, suitable for each consumer, and suited to specific dishes and food operators. This study
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57 569 contributes to existing research on food information provision in several ways. It addresses the gap
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59 570 in knowledge about workplace canteen consumer preference for different formats of information
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571 about food. The international sample utilised in this study is of relevance to canteen managers in

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3 572 Europe and beyond. The findings are in line with assertions of the dual process theories (Lachman et
4 573 al. 1979) and evidence from behavioural economics which suggest that much of human behaviour is
5 574 governed by heuristic processing of simple and contextual cues such as colours, sounds, or likeable
6 575 characters (Kahneman, 2011). While dominant, it is also clear that this heuristic approach to food
7 576 information provision is not preferred by all consumers clearly indicating that information providers
8 577 should take these perspectives into account and consider providing information in diverse formats
9 578 to cater for different consumers' informational needs. A varied delivery allows engagement with
10 579 multiple audiences but also recognises the fact that processing styles may vary depending on the
11 580 situation. Even those identified in this study as heuristic processors may in some situations,
12 581 experience different levels of involvement in ensuring a healthful diet and in effect switch to a
13 582 systematic style which requires more information.

14 583
15 584 Future studies may seek to replicate these findings in different international settings or with
16 585 consideration of other characteristics of audiences which may be attributed to distinct segments.
17 586 Beyond this, while findings presented in this study are transferrable to a range of out-of-home
18 587 eating contexts, it is to be expected that settings such as fine dining may be associated with a
19 588 different set of expectations and goals from the consumer base. Investigation of preferences for
20 589 information in such contexts could provide an interesting contrast to the workplace setting and
21 590 much needed knowledge for hospitality managers.

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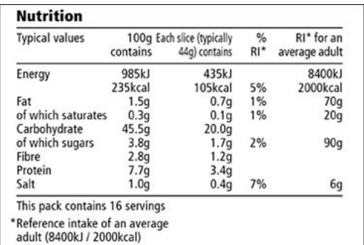
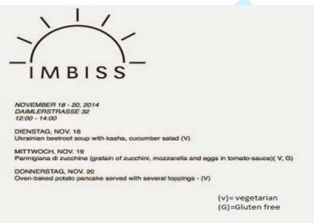
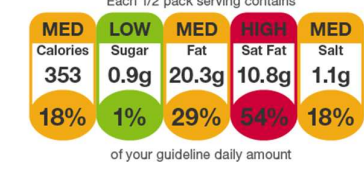
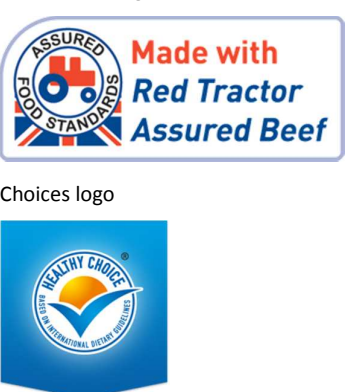

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Table 1 Different Ways of Providing Food Information to Consumers

Information form	Example	Definition	Degree of 'directedness', and processing effort and cost (dual process theory)																																																		
Nutrition information box	 <p>Nutrition</p> <table border="1"> <thead> <tr> <th>Typical values</th> <th>100g contains</th> <th>Each slice (typically 44g) contains</th> <th>% RI*</th> <th>RI* for an average adult</th> </tr> </thead> <tbody> <tr> <td>Energy</td> <td>985kJ</td> <td>435kJ</td> <td></td> <td>8400kJ</td> </tr> <tr> <td></td> <td>235kcal</td> <td>105kcal</td> <td>5%</td> <td>2000kcal</td> </tr> <tr> <td>Fat</td> <td>1.5g</td> <td>0.7g</td> <td>1%</td> <td>70g</td> </tr> <tr> <td>of which saturates</td> <td>0.3g</td> <td>0.1g</td> <td>1%</td> <td>20g</td> </tr> <tr> <td>Carbohydrate</td> <td>45.5g</td> <td>20.0g</td> <td></td> <td></td> </tr> <tr> <td>of which sugars</td> <td>3.8g</td> <td>1.7g</td> <td>2%</td> <td>90g</td> </tr> <tr> <td>Fibre</td> <td>2.8g</td> <td>1.2g</td> <td></td> <td></td> </tr> <tr> <td>Protein</td> <td>7.7g</td> <td>3.4g</td> <td></td> <td></td> </tr> <tr> <td>Salt</td> <td>1.0g</td> <td>0.4g</td> <td>7%</td> <td>6g</td> </tr> </tbody> </table> <p>This pack contains 16 servings *Reference intake of an average adult (8400kJ / 2000kcal)</p>	Typical values	100g contains	Each slice (typically 44g) contains	% RI*	RI* for an average adult	Energy	985kJ	435kJ		8400kJ		235kcal	105kcal	5%	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	Information boxes provide information on aspects of the food such as nutritional information	<ul style="list-style-type: none"> • Non-Directive – evaluation left to the consumer • Requires effort and numeracy skills to be utilised by consumer (Watson et al., 2013)
Typical values	100g contains	Each slice (typically 44g) contains	% RI*	RI* for an average adult																																																	
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Salt	1.0g	0.4g	7%	6g																																																	
Footnotes	 <p>ACHIEBEMER 18. 03. 2014 DANKLEIPSTRASSE 20 12537 - 1430</p> <p>DIENSTAG, NOV. 18 Ukrainian beetroot soup with kasha, cucumber salad (V)</p> <p>MITTWOCH, NOV. 19 Parmigiana di zucchini (gratin of zucchini, mozzarella and eggs in tomato-sauce) (V, G)</p> <p>DONNERSTAG, NOV. 20 Oven-baked chicken parmesan served with several toppings - (V)</p> <p>(V)=vegetarian (G)=Gluten free</p>	Footnotes that give further information about dishes	<ul style="list-style-type: none"> • Non-directive - evaluation left to the consumer • Effort and numeracy skills required by consumer 																																																		
Traffic Light Labelling	 <p>Each 1/2 pack serving contains</p> <p>MED LOW MED HIGH MED Calories Sugar Fat Sat Fat Salt 353 0.9g 20.3g 10.8g 1.1g 18% 1% 29% 54% 18%</p> <p>of your guideline daily amount</p>	Traffic light labels use red, amber and green signals to show consumers whether a product is high, medium or low in key nutritional aspects.	<ul style="list-style-type: none"> • Semi-directive – provide an evaluation through colour scheme, leaving the overall integration of the partial evaluation to the consumer (Hoefkens et al., 2012). • Easily understood by consumers (Borgmeier and Westenhoefer, 2009), requires less effort. 																																																		
Quality assurance logos	 <p>Red Tractor Logo</p> <p>Assured Food Standards Made with Red Tractor Assured Beef</p> <p>Choices logo</p> <p>HEALTHY CHOICE THE INTERNATIONAL DIETARY ALLIANCE</p>	Food is produced to a set of standards and supply chain inspected to ensure that production is in accordance with those standards. Quality Assurance is indicated through the use of a logo.	<ul style="list-style-type: none"> • Directive - convey the overall healthiness in an 'all or nothing' format • Requires little mental effort, but consumers must be familiar with the logo and understand what it conveys 																																																		
Product Brands		Brands act as information signals about food products to consumers.	<ul style="list-style-type: none"> • Directive - reflect high quality in areas that are of importance, that is health, welfare of others and environmental concern • Requires little mental effort but consumers must be familiar with the logo and understand what it conveys 																																																		
Interactive Information	QR Code	This form of information provision describes contact information for further inquiry or	<ul style="list-style-type: none"> • Directedness depends on the information it leads to • May require mental effort as it 																																																		


Provision		the provision of a QR code which can be scanned to obtain further information.	can display larger amounts of information compared to menus <ul style="list-style-type: none"> • May require involvement by those consumers who show an interest in food information (Nocella et al., 2014)
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Table 2 - Socio-demographic characteristics of sample

	Overall Sample (452)	
	N	%
<i>Gender</i>		
Male	176	38.9
Female	276	61.1
<i>Age groups</i>		
Below 20	15	3.3
20-29	232	51.3
30-39	96	21.2
40-49	47	10.5
50-59	43	9.5
Over 60	19	4.2
<i>Dietary requirements</i>		
Religious	14	3.1
Allergies	28	6.2
Health related	11	2.4
None	366	81.0
Other	33	7.3
Three person household	81	17.9
<i>Employment status</i>		
Full time	273	60.4
Part time	179	39.6
<i>Occupation</i>		
ISCO-08 Category 1 Managers	52	11.5
ISCO-08 Category 2 Professionals	125	28.3
ISCO-08 Category 3 Associate Professionals, Technicians, Students	181	40.0
ISCO-08 Category 4 Clerical Support	15	3.3
ISCO-08 Category 5 Service and Sales	44	9.7
ISCO-08 Category 6 Agriculture, Forestry, Fishery	1	0.2
ISCO-08 Category 7 Craft and related trades	4	0.9

Highest level of Education

Intermediate general qualification	11	2.4
Gen maturity certificate and/or vocational qualifications	84	18.6
Higher tertiary education	335	74.1

Table 3 - Average best-worst utility scores for all four participating countries (ranked in importance per country - the three most important are given in bold).

	UK n=152	Greece n=100	Denmark n=100	France n=100
Traffic Light Information	32.11	25.61	24.45	30.16
Information box (e.g. Ingredients, Allergens and Nutrition)	27.06	20.04	29.35	23.86
Quality Assurance (e.g. Red Tractor Logos, Vegetarian and Vegan)	18.81	27.39	21.68	21.51
Brand	9.79	8.81	8.92	9.88
Interactive Information (e.g. QR code)	4.63	12.94	2.47	9.32
Footnotes (e.g. on the menu)	7.6	5.21	13.13	5.27

Table 4 - Latent class cluster models fitted to individual-level best-worst scores

Model	LL	BIC _{LL}	Classification Error
Food information provision			
One-cluster model	-6263.8816	12601.127	0.0000
Two-cluster model	-6075.2040	12303.250	0.0266
Three-cluster model	-5958.1431	12148.606	0.0656
Four-cluster model	-5870.4295	12052.656	0.0747
Five-cluster model	-5821.0982	120.33.472	0.0763

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

Table 5 - Latent class cluster parameter values for all participating countries

	Heuristic Processors (33%)	Brand Orientated (25%)	Systematic Processors (17.3%)	Independent Processors (16.1%)	Tech-savvy (8.6%)	p-value	R²
Traffic Light Labelling	3.27	-1.39	-0.41	0.23	-1.7	<0.01	0.51
Information Box	-1.31	-1.01	1.56	2.09	-1.33	<0.01	0.37
Brand	0.48	2.96	-2.86	0.15	-0.73	<0.01	0.52
Quality Assurance	-0.65	1.01	-0.44	-0.29	0.38	<0.01	0.09
Interactive Information	-0.57	-0.73	0.4	-3.61	4.51	<0.01	0.50
Footnotes	-1.22	-0.84	1.74	1.45	-1.13	<0.01	0.42
Socio-Demographic Parameters							
<i>Dietary requirements</i>							
Religious (n=14)	0.6	5.3	3.8	2.7	5.1	<0.01	
Allergies (n=28)	3.4	2.7	10.3	12.3	7.7		
Health related (n=11)	2.7	2.7	3.8	1.4	0		
None (n=366)	87.9	85	66.7	74	84.7		
Other (n=33)	5.4	4.4	15.4	9.6	2.6		
<i>Employment status</i>							
Full time (n=273)	69.1	54	50	67.1	53.8	0.049	
Part time (n=179)	30.9	46	50	32.9	46.2		
<i>Participant Country</i>							
UK	45	23	26.9	42.5	17.9	<0.01	
Greece	18.8	27.4	25.7	0.00	53.8		
Denmark	8.1	24.8	34.6	43.8	2.6		
France	28.2	24.8	12.8	13.7	25.6		