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Lifestyle segmentation of Czech food shoppers

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Abstract

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Market segmentation is useful in developing the profiles of consumer segments in order to better understand their behavior. The most commonly-used approaches are applied — a food-related lifestyle (FRL) and the theory of planned behavior. Data from a 2015 nationwide Czech food consumer survey (n = 331) of young students were used in a factor analysis to identify sustainability-oriented variables, health-oriented variables as well as social and ethics-oriented variables. These factor scores were used to identify student segments; this was done by means of multilevel latent class cluster analyses. Developing students segments and finding the differences was based on the FRL concept. It can be pointed out that segmentation based on FRL gives good results when dividing consumers into groups, but this has only been verified among young people.

1. Introduction

Market segmentation is useful in developing the profiles of groups to better understand consumers' needs and purchases motivation. Researchers also use the food-related lifestyle concept (FRL) (Brunsø & Grunert, 1995; Scholderer, Brunsø, Bredahl, & Grunert, 2004) to better understand the attitudes and motivations of specific consumer groups, for example Nie and Zepeda (2011) showed that consumers who have environmental and health concerns are organic and local foods shoppers. Numerous studies have tested, innovated and practiced this concept. However, the food-related lifestyle concept is used as a framework; little attention has been paid to the food-related lifestyle profile in the context of certain types

of consumer orientation toward environmental, health, and social/ethics among young student shoppers in the Czech Republic.

Lifestyle research in marketing is primarily used for market segmentation. This paper is focused on the implication of food-related lifestyle for groups oriented toward environmental, health and social/ethics issues to better understand the differences among each type of consumers.

1.1. Conceptual model and research question

This paper is focused on the implications of a food-related lifestyle for groups separately oriented toward environmental, health, and social/ethical issues to better understand the differences among certain types of consumers. This paper investigates, first, consumers' food-related lifestyle profile. We present a modifying model. Second, the present research aims at investigating the role of individual characteristics such as personal value ascribed to music and self-actualization (Table 1).

Table 1. Conceptual framework based: Ajzen (1985) and Brunsø & Grunert (1995); Grunert et al. (1997)

<table>
<tr><th>Determinants</th><th colspan="2">Profile of consumer groups oriented toward ethical/social; environment; health beliefs</th></tr>
<tr><td>Attitude toward family; ethical/social; environment; health beliefs</td><td colspan="2"></td></tr>
<tr><td>Perceived consumers effectiveness: belief that personal effort is effective
Social norms: stimulation by</td><td rowspan="3">Market segmentation</td><td rowspan="3">Food-related lifestyle: Characteristics of consumers</td></tr>
<tr><td>Important others (social conscious consumer orientation; in terms of self--actualization)
Contextual factor: cultural variable related to music enjoyment</td></tr>
</table>

Notes: Theoretically, the study is based on Grunert et al. (1993) cognitive approach to food-related lifestyle segmentation, but methodologically a new approach is applied to the segmentation of food consumers based on the TPB. The segmentation of food consumers is based on variables related to sustainable, health, social or ethics concerns, with additional variables related to music, family and socially conscious consumption (Alkon, 2008; Alkon and McCullen, 2011; La Trobe, 2001; Hamilton, 2002; Hunt, 2007; Atkinson, 2012, Sun Wu, 2004; Bearden, Netermeyer, 1999; Brooker 1976; Kliebenstein et al. 1980).

Specifically, this study addressed the following research questions:

Can food-related lifestyle factors distinguish Czech consumers into identifiable consumer groups according to consumer orientation toward environmental, health, and social/ethics issues?

2. Theoretical framework of the research

2.1. Food-related lifestyle

Previous food research studies have used the FRL concept (Brunsø & Grunert, 1995; Grunert, Brunsø, Bredahl & Bech, 2001) as a framework to aid in identifying potential indirect predictors. The five domains of consumer lifestyle are assumed to capture the key characteristics of an individual's FRL (Thøgersen, 2017): shopping habits, quality aspects, cooking methods, consumption situation and purchasing motives (Brunsø & Grunert, 1995; Grunert et al., 2001). Among the individual difference variables considered to be moderators in other reviews were factors such as a self-monitoring tendency, self-consciousness or self-awareness, and a need for cognition (Vermeir & Verbeke, 2006). Also, in recent years, attention has focused on characteristics of the behavior itself, such as how active or passive a behavior is and the difficulty and social pressure related to that behavior. The theory of planned behavior (TPB) provides an excellent framework for conceptualizing, measuring and empirically identifying factors that determine behavior and behavioral intention (Vermeir & Verbeke, 2008). The FRL is useful to evaluate whether there are differences in profile among environmental, health, and social/ethics consumer orientation.

3. Research methodology

3.1. Method

The method is described in the already published paper from the 32nd IBIMA Conference (Hrubá, 2018).

3.2. Respondents and data

Data from a 2015 nationwide Czech food consumer survey ($n = 331$) of young students were used in a factor analysis to identify sustainability-oriented variables, health-oriented variables, social and ethic-oriented variables (at the first stage). These factor scores were used to identify consumer segments; this was done by means of multilevel latent class cluster analyses using the software program Data Analyzer (at the second stage). The clustering method was used for consumer segmentations which divided consumers into relatively homogeneous groups in relation to environmental/health/social issues.

These data are from a continual research project named Market Media Lifestyle (MML-TGI), by the Median company. MML-TGI is a very well accepted resource for research in the area related to marketing, shopping and advertising.

3.3. Attributes and tested items

Ethical/social, environmental and health beliefs attributes. The inclusion of variables which measure sustainability, health beliefs, and social attitudes concerns is based on empirical studies which found environmental, health and social concerns were important in explaining environmental behaviors (Magnusson et al., 2003; Sidali et al., 2016). The variables contain 13 questions each on environmental/health/social issues.

Food-related lifestyle attributes. The instrument used to obtain lifestyle segments was modified for the purposes of FRL analysis in the Czech Republic. However, as mentioned earlier, the instrument contained variables that corresponded to five domains of the FRL. Spontaneity and the whole family were excluded because these data were not available in our database. This modified FRL model was used to examine how consumers within the behavioral consumer segments differed in terms of their FRL.

All the attitude/behavior variables (using factor analysis and the FRL) were entered into the multivariate statistics contingency table, using a chi-squared test and a 5 % level of significance to identify consumer profiles in each type of group. We were able to conclude that each of the groups displayed a statistical difference; this means that we were able to investigate how consumers within groups differed in terms of their FRL. In addition, these modified FRLs were used to identify the profiles within the segments.

4. Analysis of research results

4.1. Factor analysis

Perceived environmental, health, social/ethical responsibility awareness of consumers, and the results of factor analysis are the factor matrix's respective factor loads. For a better interpretation, a rotated factor matrix is used, because it more clearly shows relationships between the observed variables and the individual factors. The solution of the likelihood ratings had five interpretable factors. Individual factors are also named according to the significant variables. Each factor showed good homogeneity (Cronbach's α coefficient was able to explain a large part [59%] of the relevant factors).

The first factor (sustainability-oriented variables) reflected environmental pollution with a positive attitude regarding the willingness to pay for ecological products (dispersion is 16%); the second factor (health-oriented variable, 12% dispersion) included caring about health, nutrition, and avoiding stress; the third factor (family and ethically responsible firm variable, 9% dispersion) involved the perceived importance of being with family, as well as supporting entrepreneurs who are responsible and ethical; the fourth (oriented toward the biological value of food, 9%

dispersion), fifth (social-media-oriented, 7% dispersion) and sixth (self-actualization-oriented, 6% dispersion) variables have a low explained variance.

4.2. Cluster analysis: Result

To identify the best cluster solution, these factors were used to identify consumer groups through cluster analysis using Data Analyzer. To reveal the market segments, k-means clustering was used to classify data into clusters. The number of clusters was entered into the Data Analyzer and the number of clusters was then modified. Where four segments were discovered, this was the best solution from the above-described method and to reveal information related to consumers' characteristics, even though three large segments and one smaller segment were discovered. The major distinction seems to be in factors describing attitudes toward biological values and social aspects. In all cases, the findings yielded four clusters: consumers who are unconcerned about health but are concerned about ethics and music (48 students); consumers with a negative ethical awareness but positive sustainability attitudes represented the largest group (113 students); consumers with unhealthy lifestyles but who are organic-and food-nutrition-oriented (100 students); and unsustainable but ethically and socially oriented consumers (70 students). The first and third segments were characterized by the 'music is part of life' attitude and self-actualization; this was not the same for the second and fourth segments.

4.3. Identifying segments/clusters

The segment profiles, together with profiles of background characteristics and their differences regarding attitudes toward biological values and social aspects, show significant differences among the items from the factor analysis (sustainability, ethics or health, social). Using a chi-squared test and a 5% level of significance, we were able to conclude that each of the four consumer segments displayed a statistically different value in terms of environmental concerns, biological value of food products, familiarity with family and music, ethical concerns, and self--actualization. In terms of the FRL concept, this confirms the significant variables of the cluster analyses of the FRL dimensions for each of the segments. As expected, the results show that there are large differences in the scores on lifestyle dimensions between consumer segments.

In answer to question, in this study we accepted that ethical/social, environmental and health beliefs attributes of consumer orientation have an impact on their FRL.

5. Conclusions

Due to global problems such as climate change, biodiversity loss, and environmental degradation (IPCC, 2014), the European Commission communicates new

plans for a simplified, modernized future for food and farming with a new common agricultural policy (CAP) on the horizon (European Commision, 2018). It is increasingly accepted that consumption can have a huge direct impact on environmental and social development as well as economic growth (Agarwal, 2013). It can be pointed out that segmentation based on FRL gives good results when dividing consumers into groups, but this has only been verified among young people.

Finally, the findings hold specifically within the characteristics of the sample and the study nation, i.e., young adults in the Czech Republic. Hence, future studies including other socio-demographic groups or representative consumer samples are recommended to validate the findings presented in this paper.

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