

Apart from Price: Additional Barriers to Sustainable Food Consumption

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Abstract - Sustainability has emerged as an important management topic in the agribusiness and food sector. Consumers can now choose from a wide variety of additional food quality attributes ranging from organic to fair trade to animal welfare. These new markets are niche markets showing steady growth. Thus it is important to understand the factors influencing sustainable food consumption. To our knowledge, this is the first study simultaneously analyzing four different dimensions of sustainable food (environment, climate, fair trade and animal welfare) in order to identify (a) whether consumers have positive attitudes towards these four sustainability dimensions; (b) to what extent they buy such food; and (c) whether barriers might hamper their purchase behavior. The data for this study was collected in 2012 via an online consumer survey in Germany (N=300). We observed a clear attitude-behavior gap and identified some possible causes for its existence. They can be categorized as price, availability, lack of information, skepticism, and difficulty to change consumption habits.

INTRODUCTION

Sustainability is increasingly being recognized as a major issue by most industries. Especially in agribusiness and the food industry it has become an important management topic (Vermeier and Verbeke, 2006; Verain et al., 2012). Today, consumers can choose from a wide variety of different food quality attributes referring to the sustainability of the food chain such as organic production, fair trade, animal welfare, local production, etc. The market shares of these segments are small. They often represent only niche markets, but these segments have been steadily growing over the past decades (Willer et al., 2013).

From a marketing as well as from a policy point of view it is important to be familiar with the factors influencing sustainable food consumption in order to successfully tailor strategies to further enhance this type of consumption. Many studies have already analyzed these factors for single segments such as organic or fair traded food (e.g. Aertsens et al., 2009; Andorfer and Liebe, 2012). However, until now no study has simultaneously analyzed these four different segments: environmentally friend-

ly/organic, climate friendly, animal welfare and fair traded foods.

The goal of this paper is thus to identify whether consumers have positive attitudes towards these four sustainability dimensions, to what extent they buy such food and whether and if so barriers might hamper their purchase behavior of sustainable food.

METHODOLOGY AND DATA

The questionnaire we used for this study was designed following the Theory of Planned Behavior (Ajzen, 1985). For this paper we only focus on the constructs of attitudes, barriers (perceived behavioral control) and behavior. The attitude concerning sustainable food was measured by the question: How important it is to you that the food you buy is environmentally friendly produced / climate friendly produced / animal welfare friendly produced / fair traded? The answer options lay on a 5 point Likert-Sscale (-2 - + 2; important).

To measure the barriers to sustainable food buying behavior we asked respondents to what extent they perceive the following eleven barriers to match with their personal experiences when shopping "environmentally (environmentally / climate friendly) and/or socially (fair trade / animal welfare) correct food": For me it is hard to change my consumption & shopping routines; I do not know where to buy such food; I do not know how to distinguish such food from conventional food; Such products are not available where I usually go for shopping; I think such products are too expensive; I would need to spend more time for shopping; I would buy such products, if I would not always forget while shopping; I do not think that such products really exist; I have made some bad experiences with such products; My family/friends do not like such products; I do not know why I should buy such products. The answer options lay on a 5 point Likert-Scale (-2 - + 2; apply). Buying behavior was measured with regard to the frequency of purchase referring to each of the four dimensions.

Data was collected in spring 2012 via an online consumer survey. The standardized questionnaire was sent to consumers with the help of a private marketing research organization. A pre-test with 20 volunteers was carried out before the actual start of the study. 2.530 individuals were invited to participate in our survey. The final sample size for analysis is 300 the response rate was 32.2%. Data was analyzed with IBM SPSS Software Version 19.

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The sample consists of 54.3% female and 45.7% male respondents. The female figures are relatively higher in our sample than in the actual German population. The average age of our respondents is 45 years. The age groups of those less than 25 years old and those older than 55 are underrepresented in our sample (Destatis, 2011). Most of the participants in our study live in urban areas, which is typical for Germany (ibid.). In comparison to the average German level of education we have a sample of highly educated individuals.

RESULTS

Out of the 300 respondents 136 stated that all four tested sustainability dimensions are very important or important to them. 107 respondents stated that one, two or three dimensions are (very) important for them. 58 stated that none of the four dimensions is (very) important for them regarding the food they buy.

Looking at the buying frequency of those 136 respondents that have a positive attitude towards all four dimensions we recognize that only 27 out of this group state to buy such products frequently so we observe a clear attitude-behaviour gap (Fishbein and Ajzen, 1975).

To gain a better insight into the possible underlying causes of this gap we compare the mean values of consumer groups regarding the barriers that might hamper the transformation of positive attitudes into according purchases of sustainable food. We compare the group of those 109 respondents that have a positive attitude towards sustainable food but do not frequently buy such products (Non-Sustainable Purchasers) with those 27 respondents that state that the four dimensions are (very) important to them and that they frequently buy such products (Sustainable Food Purchasers).

Of the eleven tested barriers we find six significant differences in the mean values of the analysed groups. We observe highly significant differences in the barriers "I think such products are too expensive; I do not know why I should buy such products; I do not think that such products really exist". Table 1 gives an overview about these results.

Table 1. Differences in mean values.

	Too high Price ***	Sceptic: usefulness ***	Sceptic: existence ***
Non-Sust. Purchasers (N=109)			
Mean	.36	-1.06	-.18
Stand.dev.	.901	.812	1.040
Sust. Food Purchasers (N=27)			
Mean	-.04	-.81	-.04
Stand. dev.	.898	1.145	1.126

Source: Own Calculations 2013

Furthermore we observe significant differences for the barriers: "Such products are not available

where I usually go for shopping; I do not know how to distinguish such products from conventional food; For me it is hard to change my consumption & shopping routines".

CONCLUSIONS

The fact that price is among the barriers that might explain the observed attitude-behaviour gap had been expected and is also found in similar studies (Aertsens et al., 2009). Also the perceived difficulty to change one's habits is well known. We identify however three additional aspects of specific relevance for business actors and policy makers that hamper the sustainable food consumption even of those that state to have a positive attitude towards it: perceived scepticism about the existence of sustainable food products and their usefulness for the sustainable development, perceived lack of availability of sustainable products, perceived difficulty to identify sustainable food. These findings hint at issues apart from price or behaviour changes which policy as well as business actors could address to increase sustainable food consumption. The credibility of and trust into sustainable food needs to be improved. Meanwhile it is important to facilitate the sustainable food choice for consumers by increasing the availability and information about such products.

REFERENCES

- Ajzen, I. (1985). From Intentions to Actions: A theory of Planned Behavior. In Kuhl, J. and Beckmann, J. (eds.). *Action Control: From Cognition to Behavior*. pp. 11-39. Heidelberg: Springer.
- Aertsens J., Verbeke W., Mondelaers K. and Van Huylenbroeck G. (2009). Personal determinants of organic food consumption: a review. *British Food Journal* 111(10):1140-1167.
- Andorfer, V. A. and Liebe, U. (2012). Research on Fair Trade Consumption - A Review. *Journal of Business Ethics* 106(4):415-435.
- DESTATIS – Statistisches Bundesamt (2011). *Statistisches Jahrbuch 2011*. Wiesbaden: Statistisches Bundesamt.
- Fishbein, M. and Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison Wesley.
- Verain, M., Bartels J., Dagevos H., Sijtsma S.J., Onwezen M. C. and Antonides G. (2012). Segments of sustainable food consumers: a literature review. *International Journal of Consumer Studies* 36(2):123-133.
- Vermeir, I. and Verbeke, W. (2006). Sustainable Food Consumption: Exploring the Consumer Attitude-Behaviour Gap. *Agriculture and Environmental Ethics* 19 (2):169-194.
- Willer, H., J. Lernoud and L. Kilcher (Eds.) (2013). *The World of Organic Agriculture – Statistics and Emerging Trends 2013*. Frick: Research Institute of Organic Agriculture (FiBL) and Bonn: International Federation of Organic Agriculture Movements (IFOAM).