

Well-informed Consumer? How do Different Consumer Groups Handle Online Information on German Animal Welfare Initiatives?

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ABSTRACT

In January 2015, German trade and industry announced to support the national animal welfare initiative "Initiative Tierwohl" (ITW) which stands for a more sustainable and animal-friendly meat production. A web content analysis shows that the ITW initiative has been widely picked up and discussed by online media and that user comments are quite heterogeneous. The current study identifies different types of consumers through factor and cluster analysis and is based on an online survey as well as face-to-face interviews. According to our results, the identified consumer groups demonstrate a rather passive comment behaviour on the internet. In fact, the internet was hardly mentioned as an information source for meat production; consumers more frequently referred to brochures, leaflets and personal contacts with sales personnel.

Keywords: *Consumer behavior; Milieu-specific differences; Schwartz's portrait value questionnaire (PVQ); Social Media; Sustainability; Echo chamber; Factor- and cluster analyses*

Introduction

The topic of meat production and meat processing has intensive media coverage that is often offering only one-sided contra arguments such as e.g. animal cruelty (Chen 2016), mass animal husbandry (Boehm et al 2010), responsibility of individuals' dietary choices (Almeron and Zappedu 2015). This coverage has little consistency with the available scientific evidence identified in academic literature (Boehm et al 2010, Friedlander et al 2014). Furthermore, how information on meat production, processing and consumption is presented means that so-called social media echo chambers¹ are being formed within the online discourse. In this context, an echo chamber is defined as a "set of ideas are bounced around and are lauded for their virtues by the opinion leaders in that space" (Karpf 2012). Opinion leaders "push each other to even greater extremes while avoiding any information that might challenge their worldview" (Karpf 2016) and potentially influence how the opinions of certain consumer groups are formed.

Generally, news consumption fosters trust in the media system (Schrantz et al 2016), but a prerequisite for this trust is the regular use of a wide range of information media. In terms of meat, certain scientific contributions illustrate the trust/mistrust in and the negative influence of the (Internet) media on meat purchase decisions (Rieger et al 2016, Verbeke and Vackier 2004). The German meat sector reacts to this generally negative publicity with information campaigns and animal welfare initiatives that allow it to stay connected with consumers and satisfy their expectations (Hartmann, 2011, Colleoni, 2012, de Vries, 2015). One example is a

¹ Other terms for this are information cocoon, filter bubble

German “Initiative Animal Welfare” – a joint initiative of farmers, the meat industry and retailers. This initiative portrays a comprehensive factual description on its website but provides little information to aid consumers in their conscious meat-purchasing decisions. This work is taken on by online news portals, which highlight ongoing processes of the initiative in their articles with an option for readers to leave their comments. However, as some studies (Meyer et al 2016, Rieger et al 2016) indicate, only some groups of consumers – the more informed and engaged – react to and participate in the online discussions. Thus not all relevant groups in Germany are being reached and informed about the meat sector’s measures towards more animal welfare, such as the German ‘Initiative Animal Welfare’.

Objectives

The objective of this paper is to identify how consumers handle online information from German animal welfare initiatives, in particular the “Initiative Animal Welfare”. As a basis for considering differences in perception and the level of consumer information about the German “Initiative Animal Welfare”, different consumer groups are identified using factor and cluster analysis. The results provide a foundation for developing recommendations for action enabling different consumers to make informed consumption decisions in the interest of both animal welfare and sustainability.

Methods

Through an online questionnaire and in face-to-face interviews, 418 German consumers (224 female and 194 male) aged between 16–80 years (42 ± 14 years) were surveyed by about human values, as measured by *Schwartz’ Portrait Values Questionnaire* (Schwartz et al. 2001) (see info box below) and consumers’ level and source of information and their attitudes towards the German “Initiative Animal Welfare”. 218 participants were recruited by the professional research agency Respondi through an online access panel. 200 respondents were interviewed between May and July 2016 in two supermarkets (Rewe and Hit²) in Rheinbach, North-Rhine Westphalia, in Germany.

BOX 1
Schwartz’ Theory of Basic Human Values

Schwartz suggests with his Theory of Basic Human Values (Schwartz 1992, 2006) a universal organization of human motivations. The theory postulates the existence of motivationally different value types. Schwartz identified ten basic values and four higher-order values, which are organized in a circular structure to explain links between individual values (see a figure below). The closer two value types are together in the circle; the motivations underlying them are similar. To measure the individual values, Schwartz proposed, among others things, the Portrait Value Questionnaire (PVQ), which consists of short verbal portraits of 40 different people. The PVQ has considerable advantages over other existing measurements.

Theoretical model of relations among ten motivational types of value (Schwartz 2012)

Results

² Both supermarkets are members of the German “Initiative Animal Welfare”

The socio-demographic information (a sample is provided in Table 1) shows that the respondents (224 female and 194 male) were in the age range 16–80 years (42 ± 14 years) and living in medium-size households (3.87 ± 1.67 members). In terms of education, 4.3% of respondents had completed 8 years of education, 22.5% had completed 10 years of education, 21.5% of respondents had finished gymnasium (high school), 22.5% had completed professional education and another 27.3% of respondents held a university degree. The majority of respondents were employees or civil servants (56%), followed by 11.2% students, 9.8% retired respondents, 6.2% freelancers, 3.1% apprentices or trainees, and 2.6% housewives/househusband. The majority of the respondents lived together with a partner, either with child(ren) (29.2%) or without children (23.4%). Another 27.8% of respondents lived in a single's household, and the remaining respondents were single parents (4.5%) or respondents living in shared flats without children (6.9%) or with child(ren) (2.2%). 3.8% of respondents were vegetarian and 1.7% of the respondents were vegan.

Table 1. A sample of the socio-demographic information

Variable	Mean	SD	Min	Max
Age	42,28	14,399	16	80
Sex (1 if female)	0,54	NA	0	1
Education (1 if respondent has an university degree)	0,27	NA	0	1
No meat eater (1 if respondent is a vegetarian or vegan)	0,06	NA	0	1

To define the consumer groups, a factor analysis (Principal Component Analysis (PCA) with orthogonal (Varimax) rotation) and a cluster analysis were performed. Schwartz's individual human values were used as cluster-building variables. The optimal solution was found with four clusters, the exact calculated statistical values of which are shown in Table 2. The F-value presented in the table can be used to characterize the clusters. The negative t-value shows that this value is most strongly under-represented in the respective cluster in comparison to the entire dataset; the positive t-value indicates the most strongly pronounced values in the particular cluster (Backhaus, 2011).

Table 2. F-values and t-values of the four clusters (own calculation)

F-values	Cluster 1 n= 112 (27%)	Cluster 2 n=94 (22.7%)	Cluster 3 n=114 (27.5%)	Cluster 4 n=95 (22.9%)	t-values	Cluster 1 n= 112 (27%)	Cluster 2 n=94 (22.7%)	Cluster 3 n=114 (27.5%)	Cluster 4 n=95 (22.9%)
Self-Enhancement	0,50	0,42	0,33	0,73	Self-Enhancement	-0,22	-0,97	1,03	-0,02
Openness to Change and Self-Transcendence	0,35	0,50	0,43	0,49	Openness to Change and Self-Transcendence	0,57	0,09	0,47	-1,34
Conservation	0,57	0,44	0,46	0,79	Conservation	-0,94	0,73	0,51	-0,22

Cluster 1 is characterized by the strongly over-represented meta-values of *Openness to Change* and *Self-Transcendence*; the *Conservation* meta-value is under-represented in this group. Due to the predominance of these values, this cluster was called *Caring Adventurous* consumers (27%). 17.9% among Caring Adventurous consumers know about the ITW and take it as a good and credible approach. 77.7% respondents of this cluster would find an ITW seal³ useful. They would rather buy products with the ITW seal than products without seals. These consumers tend to gather information on-site (asking staff/reading packages) **prior to purchasing meat or meat products**, but they also read reports from the Consumer Service; their **sources of general information** on animal welfare, meat quality/consumption are online news portals and Facebook/Twitter. This group of consumers is predominantly female and eats little meat.

³ ITW has currently no seal, but a small statement on its products.

Cluster 2 can be described as *Sympathetic Conservative* (22.7%) due to the strong over-representation in the *Conservation* meta-value; the meta-value *Self-Enhancement* is strongly under-represented. Compared to cluster 1, more representatives of this cluster (26.6%) heard about ITW; like in cluster 1, ITW is considered by Sympathetic Conservatives as a good and credible approach. 72.3% of this cluster would find an ITW seal useful. They would rather buy products with the ITW seal than products without seals. **Before purchasing meat**, *Sympathetic Conservatives* inform themselves in the print press, social networks (e.g. Chatter) as well as by reading information on the package in the store. They prefer to **gather general information** on meat consumption/animal welfare from blogs and thematic Internet forums. This consumer group is predominantly female and has diverse meat consumption (vegetarians, flexitarians, and meat-eaters).

Cluster 3 is characterized by a strong over-representation of the value *Self-Enhancement*; the other two meta-values are also present. The *Status-Oriented Harmony Seekers* (27.5%) are better informed about the ITW or at least know that it exists, in contrast to the clusters described above; just as in clusters 1 and 2, ITW is considered to be a good and credible approach. 64.9% of representatives of this cluster would find the ITW seal useful. *Status-Oriented Harmony Seekers* prefer to buy products with an ITW seal rather than products without seals. This group inform themselves prior to meat purchase by talking to friends and acquaintances or by reading packages, or they have no specific need for information about meat. They use online news portals as their source of general animal welfare/meat information. *Status-Oriented Harmony Seekers* are mainly male with a diverse meat consumption (vegetarians, flexitarians, meat-eaters).

Cluster 4, the *Rigid Informed Conservative* (22.9%) group, has features with a very strongly under-represented *Openness to Change* and *Self-Transcendence*. The *Rigid Informed Conservative* is the group with the lowest awareness of the ITW (8.4%); like the other clusters, they consider the initiative to be a good and credible approach. 64.2% would find an ITW seal useful. They would rather buy products with the ITW seal than products without seals. Members of this group ask staff about meat and meat products on site but also search the Internet **prior to purchase** and read reports by the Consumer' Service. Their **sources of general information** on animal welfare, meat quality/consumption are similar to those of the "*Caring Adventurous*" type, but they seem to be more Internet-oriented (Facebook/Twitter, websites of companies and ministries). These consumers are predominantly male and mainly meat-eater.

Conclusions

The results reveal that the identified consumer groups generally use the Internet for their information needs but show a lacking or passive comment behavior. Only one group – "*Status-Oriented Harmony Seekers*"- was identified as barely Internet-oriented in its information gathering on meat/animal welfare related topics since, although members of the group do read online news portals, they show a less intensive use of the Internet and social media as information/opinion-forming sources. Overall, the study shows that the Internet is, however, not often mentioned as a source of information on meat products. Consumers were referring instead to brochures, leaflets and personal contact with the salespersons or their peer-group. In terms of active participation in online discussions e.g. leaving a comment on online news articles, only the "*Rigid Informed Conservative*" consumer type seems to participate in commenting online on meat-related topics.

It can be concluded that the current communication on German "Initiative Animal Welfare" leaves room for improvement as far as countering the criticism of the initiative from (online) mass media (e.g. online news portal as major German news sites (Spiegel online, Welt online, Focus online)) goes. Only a limited number (and type) of consumers are reached via the Internet. The cluster analysis shows that, especially for the "*Caring Adventurous*" consumers and the "*Status-Oriented Harmony Seekers*", a targeted addressing would be beneficial. The fourth cluster – "*Rigid Informed Conservative*" - has an above-average interest in information but media is still not really being reached by this Internet media channel. This permits the conclusion that there is a need for a comprehensive analysis of levers, such as price/willingness to pay, communication, transparency, control, that could be supportive in enhancing more animal welfare.

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