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## RESEARCH ARTICLE

# How do consumers search for and process corporate social responsibility information on food companies' websites?

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### Abstract

The importance of corporate social responsibility (CSR) communication for food companies has grown substantially ever since global action plans such as the UN Sustainable Development Goals have begun targeting topics which are highly relevant to food companies. Furthermore, various food scandals have caused consumers to question current food production methods, leading to a search for more information on ethical production methods. However, it is not known how consumers search for and process information on websites as one relevant CSR communication channel. The objective of this study is to develop requirements for consumer-aligned CSR communication on corporate websites. Information search and processing was examined through consumers' navigation behavior on websites and by conducting think-aloud protocols. The findings of this study suggest companies provide comprehensive information that can easily be filtered. Furthermore, companies should present specific information to credibly distance themselves from greenwashing accusations, e.g. by referring to external evidence.

**Keywords:** Corporate social responsibility, CSR communication, consumer, information search behavior, think-aloud protocols

**JEL code:** D83, D71, Q13

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## 1. Introduction

Environmental and social concerns regarding food production have become increasingly ubiquitous (Forsman-Hugg *et al.*, 2013; Lerro *et al.*, 2018a). Topics such as climate change, sustainable consumption and production, biodiversity, and desertification are priorities on the agenda of global actions plans, not least through the adoption of the Sustainable Development Goals by the United Nations in 2016 (United Nations, 2018). Furthermore, based on a European Parliament and the Council of the European Union directive, many European food companies have been obliged to disclose information on their activities regarding environmental, social, and employee concerns since the fiscal year 2017 (European Parliament and Council of the European Union, 2014).

At the same time, the presence of numerous food production scandals in the media has reduced consumers' trust and increased their interest in a more ethical food production style (Barnett *et al.*, 2016; Lerro *et al.*, 2018a). According to a Eurobarometer survey, 80% of European consumers claimed interest in corporate activities involving ethical production methods and 70% indicated that food companies make efforts to behave responsibly towards society (European Commission, 2013). An increasing number of consumers in Europe, and especially in Germany, are willing to pay a price premium for food products that ensure ethical production, e.g. eco-friendly production methods, products ensuring greater animal welfare, or those guaranteeing labor and human rights (Bronnmann and Asche, 2017; Del Giudice *et al.*, 2018; Grunert *et al.*, 2018; Lerro *et al.*, 2018b; Risius and Hamm, 2017). Furthermore, communication about ethical food production ensures greater customer satisfaction and higher long-term customer loyalty (Gómez *et al.*, 2018; Hartmann *et al.*, 2015; Lombart and Louis, 2014). Hence, the implementation of consumer-oriented corporate social responsibility (CSR) communication has gained importance for food companies who wish to differentiate themselves from their competitors (Hartmann, 2011; Luhmann and Theuvsen, 2016; Poetz *et al.*, 2013).

Based on a definition of the European Commission, CSR comprises all corporate activities that integrate social, environmental, ethical, human rights, and consumer concerns into business operations (European Commission, 2011). In consumer research, the term 'sustainability' is often used in this context, e.g. sustainable products or sustainable practices (Glover *et al.*, 2014; Ju and Chang, 2016; Zander *et al.*, 2018). The term 'sustainability' or 'sustainable development' refers to the ability of society to meet 'the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987). Sustainability and CSR have strong overlaps, for example, in the conception of economic, social, and environmental concerns (Montiel, 2008). In the further course of the paper, the term CSR is used in specific reference to the responsibility of a company rather than the responsibility of society as a whole.

Consumers, however, often mistrust corporate communication and perceive it as misleading (Lyon and Montgomery, 2015; Nielsen, 2013; Parguel *et al.*, 2011). This accusation of misleading communication, which is often referred to with the term 'greenwashing' (Lyon and Montgomery, 2015), is made on several grounds. Consumers are often skeptical about CSR communication because of their past experiences with companies' misleading communication (Chen *et al.*, 2014). Furthermore, consumers cannot verify before, during, or after the purchase decision if the companies have implemented the communicated CSR activities, e.g. if raw materials were produced under ethical conditions (Karstens and Belz, 2006; Valor, 2008). One option is for companies to use third-party labels that signal their high food production standards to consumers. However, this requires consumers to be aware of the labels, understand them, and that the promises made are in line with consumers' expectations (Carrero and Valor, 2012; Janssen and Hamm, 2014; Kühl *et al.*, 2017).

The evidence that CSR communication influences consumers' purchase decision and the company's image is, however, mainly based on fictitious and limited information regarding CSR activities. So far, there is a gap in the literature on how consumers search for extensive and complex CSR information, e.g. on corporate websites, and how they process this information. Internet is an important source of information for consumers, along with other information sources for CSR activities (Lerro *et al.*, 2018b; Mozas *et al.*,

2013). This contribution attempts to fill the research gap by investigating determinants of successful CSR communication to consumers via websites to determine specific recommendations that will be useful for marketers to improve their communication. Twenty-one think-aloud protocols were conducted with German consumers, during which respondents searched for CSR information on the websites of two German food retailers (REWE and Alnatura) and two German dairy companies (Zott and Andechser Molkerei Scheitz). CSR communication is important for food retailers, as they are in direct contact with consumers at the point of sale. In addition, they are more vulnerable to food scandals because they act as intermediaries between food producers and consumers. They are also criticized or worse, boycotted if a product sold is involved in a food scandal (Wiese and Toporowski, 2013). The dairy sector was also included as it is the second most important subsector in Germany's food industry (BMEL, 2017). Focusing on the dairy sector was advantageous because the company names are commonly linked directly to the company's brand names, which is not the case, for example, in the German meat sector. This ensures that consumers can correlate the communicated CSR activities on companies' websites to the dairy brands they see in the retail shops. This study focusses on Germany because German consumers are deeply concerned with CSR issues and are willing to pay a premium price for product attributes such as animal welfare, fair prices paid to farmers, organic production methods (Zander *et al.*, 2018; Zander and Hamm 2010).

## 2. Literature review

To maintain their social legitimacy while generating competitive advantages, companies must effectively communicate their activities to different stakeholders including citizens, consumers, employees, investors, and civil society organizations (Du *et al.*, 2010; Schlegelmilch and Pollach, 2005; Van de Ven, 2008). This paper concentrates on the consumers' perspective of CSR communication. In general, companies can inform consumers about their CSR activities through various communication channels such as the corporate website, different public media channels, written sustainability reports, on product packaging, as well as through different measures at the point of sale (Du *et al.*, 2010; Nielsen, 2013; Ziek, 2009). According to Lee *et al.* (2009), websites are an ideal communication channel for companies to focus on different target groups simultaneously. Mozas *et al.* (2013) identified the corporate website as a commonly used CSR communication channel for food companies. Websites are also very effective in communicating complex, comprehensive information on CSR activities (Pollach, 2005), whereas other important CSR communication channels of food companies targeting consumers, e.g. leaflets at the point of sale, social media, or product packaging, can only convey very limited CSR information. At this point, however, it must be added that websites do not focus only on consumers as the communication target. This means that website CSR communication which is non-effective for consumers could be effective for other target groups.

The spectrum of food companies' CSR communication has already been investigated in various studies. The literature study by Luhmann and Theuvsen (2016) and the theoretical study of Maloni and Brown (2006) provide a good overview of topics relevant for all sectors and topics pertinent to agro-food companies. General topics include fair working conditions, support of charitable initiatives, fair sources of supply, and consideration of environmental concerns. Specific topics for the agro-food industry include animal welfare, food safety, and biotechnology issues. A further distinction can be made in how the implementation of CSR in food retailing differs from that of food manufacturers such as dairy companies. While topics like food waste, local sourcing, and working conditions are specifically important for retailers (Jones *et al.*, 2007; Loussaïef *et al.*, 2014), issues such as animal welfare and sourcing animal feed play a particularly important role for dairy companies (Luhmann *et al.*, 2016). Further studies investigated CSR communication measures for food products like coffee and juices in Klink *et al.* (2014), Ross *et al.* (2015) and Bradley and Botchway (2018).

In the field of consumer research, many studies on the consumers' assessment of CSR have been published. Findings on consumers' CSR awareness are contradictory. A few studies found that consumers generally have a differentiated understanding of CSR that includes various aspects of operations (Gassler *et al.*, 2016; Öberseder *et al.*, 2013, 2014). However, Müller *et al.* (2014) and Hartmann *et al.* (2013) determined that few consumers knew the term CSR. Several other studies showed that consumers have limited awareness

of how CSR is implemented in the food sector (Hartmann *et al.*, 2013; Loussaïef *et al.*, 2014). Consumers are not necessarily aware of the comprehensive concept of CSR, but they are receptive to certain CSR topics which leads them to start searching for specific information. If consumers are asked expressly about their perception of food products that ensure more ethical production conditions, they indicate clear preferences for such products. A large number of consumer studies have already provided evidence that food companies' communication about their CSR activities influences the evaluation of product alternatives and the purchase decision (e.g. Castaldo *et al.*, 2009; Del Giudice *et al.*, 2018; Hartmann, 2011; Lerro *et al.*, 2018a,b; Luhmann and Theuvsen, 2016; Müller Loose and Remaud, 2013).

Despite evidence of consumer interest in CSR information and the impact of CSR on buying decisions, there is little evidence on how consumers search for CSR information and which CSR information matters to them (Luhmann and Theuvsen, 2016). In the studies of Hartmann *et al.* (2013) and Müller *et al.* (2014), the German interviewees referred to various information channels, e.g. newspapers, TV broadcasts, or the Internet for the collection of relevant CSR information. In addition, information published by companies (on product packaging or company websites), and information from independent actors (e.g. consumer organizations) were rated as relevant. The most important information source on CSR commitment of food companies and retailers were newspapers and television (Hartmann *et al.*, 2013), and consumers' personal observations at the point of sale (Loussaïef *et al.*, 2014). In contrast, Lerro *et al.* (2018a) and Lerro *et al.* (2018b) identified the internet as the most important source of information for consumers searching for the CSR activities of food companies. The diverging results may be explained by the different years of data collection. Hartmann *et al.* (2013) conducted their survey in 2010, whereas Lerro *et al.* (2018b) collected their data in 2016. In recent years, CSR communication has become the norm and for some companies is now required by European Union regulations (European Parliament and Council of the European Union, 2014). It can therefore be assumed that consumers' active internet searching increased due to the greater prominence of CSR in the public debate.

Even though there is some basic knowledge about which information channels consumers use to search for CSR information, the information search process itself has so far been insufficiently investigated. Only Klink *et al.* (2015) investigated consumers' search processes for product-related CSR information. The search process for CSR information was captured using an Information Display Matrix (IDM) for pork and chicken products. With an IDM, researchers track and analyze consumers' information acquisition for given product alternatives with different attributes (Aschemann-Witzel and Hamm, 2011). Klink *et al.* (2015) found that product price was the most important product attribute for consumers. In addition, information on the shelf life, product origin, and animal husbandry was relevant to consumers. The search process for more complex and comprehensive CSR information (e.g. communication on websites) has not yet been investigated.

To assess whether CSR communication on websites is effective for consumers, it is essential to understand consumers' information processing. However, no study has yet been conducted on how consumers process and evaluate CSR information on websites. Therefore, the following sections present literature on general communication theory which is supplemented by empirical evidence on factors influencing effective CSR communication targeting consumers.

For successful CSR communication on websites, user-friendliness plays an important role. User-friendliness, or usability, refers to the 'extent to which a system, product, or service can be used to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use' (ISO, 2018). Effectiveness refers to the characteristics of a website that allow users to find expected and desired information, while an efficient website provides users with a good orientation to quickly and easily acquire relevant and well-structured information. Satisfaction denotes the acceptability of a website from the user's point of view (Lee and Kozar, 2012). Furthermore, a user-friendly design should provide users with a good orientation to quickly and easily capture relevant information. It is crucial that users understand the structure of the links between the web pages (sub-unit of a website) so that they can find the information they are looking for (Pollach, 2003). Based on theoretical findings on CSR communication, a message's credibility is crucial for the impact of



CSR communication on consumers (Alcañiz *et al.*, 2010; Du *et al.*, 2010; Schlegelmilch and Pollach, 2005). The term credibility refers to the extent to which a source is trusted (Solomon, 2015). The more credible a message is perceived, the more likely it is that the recipient accepts and adopts the content of the message (Du *et al.*, 2010). In addition to credibility, the specification of information is of central importance for the communication impact of CSR. Based on specific information, consumers are enabled to check and verify the information communicated by the company (Du *et al.*, 2010; Schlegelmilch and Pollach, 2005).

Given the above described gaps in the literature, there is a need for a deeper analysis of the phases of information search and information processing, which factors influence these processes, and especially, perceived credibility.

### 3. Methods and research design

#### 3.1 Data collection methods

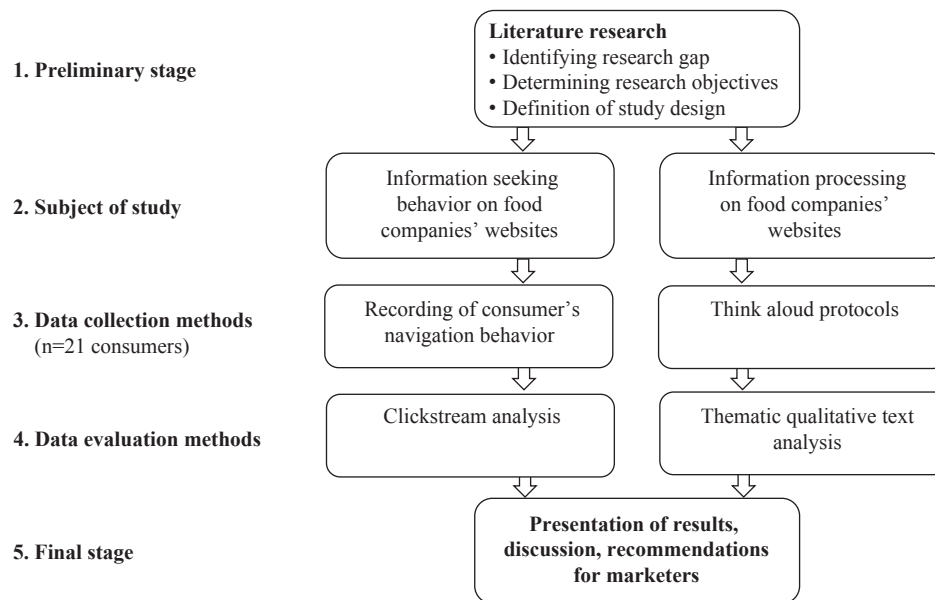
Consumer-oriented communication of CSR on food companies' websites is a relatively new market phenomenon. Qualitative research methods are suitable to gain initial insights into this phenomenon, because they reveal the interrelationships of observed and unexplained phenomena by capturing thoughts, feelings, intuitive attitudes, and associations (Bryman, 2012; Flick, 2009). However, frequently used methods in qualitative research such as focused interviews do not consent to investigate the cognitive processes of information search and processing.

Process tracing-methods are better suited to capture the cognitive processes of information search and processing, which are mainly known from quantitative research. They directly monitor respondents' search behavior under controlled conditions. Compared to commonly used survey methods, the observation of information search and processing is also linked to a lower social desirability effect (Aschemann-Witzel and Hamm, 2011; Zander and Schleenbecker, 2018).

In general, three process tracing-methods, IDM, eye-tracking, and think-aloud protocols (TAPs) are commonly used in consumer research. IDM aims at analyzing search and purchase decisions of consumers by displaying product attributes in a matrix scheme (Zander and Hamm, 2010). However, due to the restriction of information being displayed in a matrix, an IDM is not suitable for the investigation of search behavior on websites. Eye-tracking records the gaze of an individual when viewing communication stimuli (Holmqvist *et al.*, 2011; Zander and Schleenbecker, 2018). Based on the frequency and sequence of fixations (targeted observation of an object), information acquisition can be recorded. However, this method does not consent the identification of consciously perceived information and how this is processed by the respondents. TAPs as a qualitative process-tracing method provide insights on cognitive processes of information search and processing (Hoppmann, 2009; Risius *et al.*, 2017; Sasaki, 2003). TAPs are an established marketing research method used in advertising effectiveness research and usability research (Van den Haak and de Jong, 2003). With this method, respondents are requested to verbalize their thoughts during a certain activity, e.g. when searching for information on websites (Benbunan-Fich, 2001; Branch, 2000). Due to its suitability, TAPs were chosen to investigate the consumers' processing of CSR information on food companies' websites (Figure 1).

To analyze consumers' information-seeking behavior on websites, the TAPs were complemented by recording and analyzing the sequence of clicks in a so-called clickstream analysis (Figure 1). The term 'clickstream' describes the navigation behavior of users on websites (Hodkinson *et al.*, 2000; Park and Chung, 2009; Senecal *et al.*, 2005). To record the clickstreams, the respondents' website views and the buttons they clicked were recorded during their information search for CSR information.

In this study, respondents were told to carry out a search task using the websites of preselected companies. During the search, respondents were asked to verbalize their thoughts. To give the respondents experience in thinking aloud, an exercise was carried out (Hoppmann, 2009). Following the exercise, respondents received



**Figure 1.** Visualization of study approach.

feedback on their thinking aloud, e.g. when the respondents did not constantly verbalize their thoughts. After the exercise, the main search task was introduced: to visit the websites of preselected food companies and to find information on these companies' CSR activities. During the information search, respondents were only interrupted when they did not continuously verbalize their thoughts with the phrase 'Please keep on speaking' (Rayner *et al.*, 2001; Risius *et al.*, 2017).

The selection of company websites aimed to include different CSR communication approaches. It was based on rankings of conventional and organic companies with the highest turnovers. Both food retail and food processing companies were included. To ensure better comparability of the results, the analysis of the companies in the food processing category was limited to the dairy sector. Further criteria were applied in the selection of the companies: all were required to have a website with several web pages for CSR communication, the company name had to appear in the company's brand, and it had to be among the companies with the highest turnover in either the conventional or organic sector. Furthermore, the food retailers and products of the dairy companies had to be available on the entire German market. Two companies from each sub-sector were selected that fulfilled the criteria that were also among the companies with the highest turnover in each case.

To validate the search length, a pre-test was conducted in which five consumers searched for CSR information on a total of the eight selected websites. As the average search duration during the pre-test exceeded the target time of 45 minutes, the investigation units were limited to four websites to avoid a cognitive overload of the participants. Consequently, only those companies in each subsector that provided the most comprehensive information on their CSR-activities, whose information was easy to find, and, if applicable, had published a CSR report were included. The corresponding four companies were Zott (a conventional dairy company), REWE (a conventional food retailer), Andechser Molkerei Scheitz (an organic dairy company) and Alnatura (an organic food retailer).

Participants were recruited from a public square located in a medium-sized German city (200,000 inhabitants) with an average purchasing power (MB-Research, 2017). The participants were approached randomly. To ensure a diverse sample composition, both older and younger consumers were included in the sample. The participants were classified into the age groups 18 to 49 years and 50 years and older to correspond to the population distribution in Germany derived from the German Federal Statistical Office. Furthermore, more

women than men were chosen, as females are still more often responsible for food purchases in Germany (Max Rubner-Institut, 2008). All participants had to regularly use the internet and buy groceries.

According to Hoppmann (2009), TAPs are usually conducted with between 10 to 30 participants. Previous research has shown that this small sample size is adequate to identify problems regarding a website's usability (Cooke, 2010; Hinchliffe and Mummery, 2008; Hoppmann, 2009). The data collection process was terminated after reaching the so-called theoretical saturation. The concept of theoretical saturation means that no new findings can be expected from adding one further participant to the sample (Bryman, 2012; Hesse-Biber and Leavy, 2006). A total of 21 TAPs were conducted by two interviewers. Both interviewers were present during most of the interviews. From the 17<sup>th</sup> interview onwards, the two interviewers discussed whether relevant new aspects had been added. In interviews 19, 20 and 21, the addition of the last respondents did not lead to any further knowledge gain. For this reason, the data collection was terminated after conducting TAPs with twenty-one participants.

### 3.2 Data evaluation methods

Based on a clickstream analysis (Figure 1) time spent on the websites and on the respective web pages were the variables recorded to analyze navigation behavior (Park and Chung, 2009; Senecal *et al.*, 2005;). The search depth was analyzed by measuring the number of web pages visited within a website (Bucklin and Sismeiro, 2003). The navigation process was analyzed (Hodkinson *et al.*, 2000) by capturing the navigation elements the respondents used: the horizontal and vertical navigation bars, the text part of the website, and the footer (Levene, 2010; Lynch and Horton, 2009).

After transcribing the respondents' verbalized thoughts, the CSR information processing was analyzed based on a thematic qualitative text analysis (Figure 1) in line with Kuckartz (2014) to systematically reduce large amounts of qualitative data (Flick, 2009; Malhotra *et al.*, 2012). A thematic qualitative text analysis is based on a previously defined category system which structures the data through inductive and deductive categories (Kuckartz, 2014; Mayring, 2000). Inductive categories are directly derived from the data, whereas deductive categories are derived from existing literature. In a preliminary step of this study, deductive categories were built based on existing knowledge about factors influencing the effect of CSR communication on consumers. Deductive categories were defined, and coding rules were established to ensure a distinct allocation of the text parts to the categories. During the initial work with the text and the first coding process, the category system was extended by inductive categories, and deductive categories were restructured. The analysis process was supported using the software MAXQDA. To underscore the results, direct quotes from the TAPs are given in the results chapter. The use of italics indicates that the respondent read the web page's text aloud.

To ensure the reliability of the category system and the objectivity of the coding process, several TAPs were double-coded by two individuals independently. Reliability refers to the accuracy of the category system in measuring results in a stable, accurate manner (Kuckartz, 2014; Mayring, 2000). The objectivity of the coding process corresponds to the independence of the results from the investigating person (Flick, 2009). Due to the differentiated and extensive category system and the individual search behavior of the participants, the consensual coding procedure was chosen (Kuckartz, 2014). If the coders differed in their assignments of text segments to categories, the reasons for these differences were discussed and a consensus had to be reached.

### 3.3 Sample description

The group of participants comprised thirteen women and eight men. Ten participants belonged to the age group 50 years and older, eleven participants to the age group between 18 and 49. The youngest participant was 26 years old, the oldest 78 years old.

## 4. Results and discussion

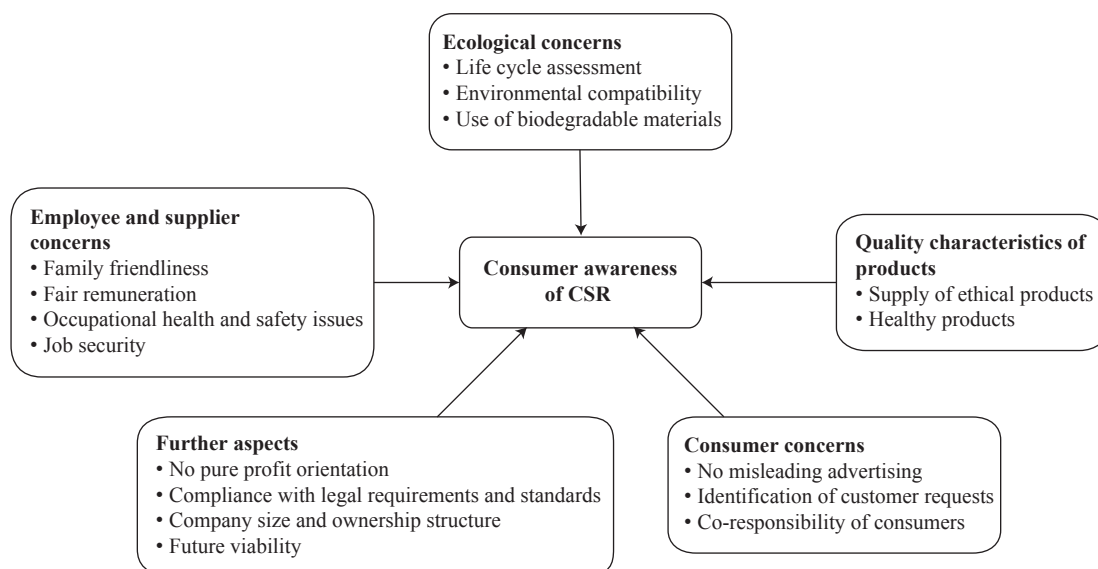
### 4.1 Consumer awareness of corporate social responsibility

Before consumers started verbalizing their thoughts while searching for CSR information, they were asked about their awareness of the term 'CSR'. The term 'corporate social responsibility' and the alternative terms 'sustainable entrepreneurship', 'corporate sustainability' and 'corporate social responsibility' were known to 19 out of 21 respondents in at least one form. In the next step, respondents who knew at least one of the terms were asked openly about their understanding of CSR. The following result section looks at both the openly stated understanding of CSR and the understanding expressed during the respondents' information search process.

Consumers showed a broad awareness of CSR (Figure 2). They mostly associated CSR with responsibility towards employees and suppliers. Some respondents generally referred to the responsibility towards employees and suppliers while several respondents further specified their understanding by mentioning a family-friendly corporate policy, fair remuneration of employees and suppliers, as well as occupational health and safety issues. Ensuring job security was also mentioned.

Many respondents associated CSR with ecological concerns without specifying them any further. Few respondents referred to life cycle assessments, environmental compatibility, or the use of biodegradable materials. Consumers often associated CSR with quality characteristics of food products by referring to ethical and healthy products. In addition, consumers' understanding of CSR included consumer concerns. Further CSR dimensions mentioned by the respondents are presented in Figure 2.

The consumer CSR awareness found in this study is very similar to the broad CSR definition of the European Commission (European Commission, 2011). The results of the present study are further consistent with the findings of Öberseder *et al.* (2013), Öberseder *et al.* (2014) and Gassler *et al.* (2016), who confirmed that consumers have a broad, diverse understanding of CSR. Although consumers' general understanding of CSR was broad, it became clear that they had only a limited understanding of specific CSR activities. Furthermore, central CSR aspects such as business practices in the fight against corruption, fair competition, or supplier evaluations (e.g. GRI, 2016) were not part of the consumers' understanding of CSR. This result is in line



**Figure 2.** Consumer awareness of corporate social responsibility.



with Öberseder *et al.* (2013), who showed that the CSR awareness of companies sometimes imposes higher or more specific standards compared to consumers' expectations.

#### 4.2 Information seeking behavior on websites

In their search for CSR information on corporate websites, consumers showed a considerably high need for information. The search behavior for CSR information differed greatly between respondents. On average, respondents searched 28:00 minutes for information on all four company websites which corresponds to an average stay of 7:00 minutes per company (Table 1). The shortest time spent on the four company websites was 4:38 minutes, while the longest time spent on the websites was 1:21:53 hours. Much like the length of stay, the search depth of the respondents also differed. On average, 30 individual web pages were accessed during the information search.

Respondents were most likely to navigate through the horizontal navigation bar (Table 1), while the vertical navigation bar was used only eight times on average. Respondents navigated less frequently through the text part of the web page (e.g. via a hyperlink in the text) and rarely through the footer of the web page. This result is consistent with previous knowledge on information seeking behavior on websites. Based on users' gaze behavior, it is known that information located at the top left of a website is viewed the most (Lynch and Horton, 2009).

To identify the respondents' search strategy, the titles of the most frequently visited web pages were summarized in terms of content:

- company philosophy or corporate principles (e.g. 'principles', 'about us');
- key CSR words or similar terms (e.g. 'sustainability', 'social responsibility');
- raw materials and their processing (e.g. 'raw materials', 'where it comes from');
- background information on ethical products (e.g. 'organic farming', 'green products');
- specific CSR activities ('acting in an environmentally conscious manner', 'how we act sustainably');
- employees and employee management (e.g. 'employees', 'family-friendly company policy');
- compilation of frequently asked questions and answers (FAQs) ('your question – our answer').

On all four company websites, respondents searched for information up to the second or third level of the website. It also became apparent that companies' CSR reports were rarely requested by the consumers. These

**Table 1.** Consumers' navigation behavior on company websites during TAPs.

Variables	Average (n=21)
Lengths of stay (in minutes)	
Total lengths of stay	28:00 (min: 04:28; max: 81:53)
Average lengths of stay per company website	07:00 (min: 01:07; max: 20:28)
Search depths <sup>1</sup>	
Number of web pages visited (incl. external websites)	30 (min: 12; max: 59)
Alnatura.de	8 (min: 2; max: 21)
Andechser-natur.de	5 (min: 1; max: 11)
REWE.de	10 (min: 1; max: 30)
Zott.de	7 (min: 3; max: 15)
Navigation on the web pages (average number of buttons clicked per respondent)	
Horizontal navigation bar	14
Vertical navigation bar	8
Content	6
Footer	1

<sup>1</sup> Repeatedly accessed web pages were counted only once.

results are particularly interesting since CSR reports are a central element of companies' CSR communication. In this way, the present study confirms the results of Spence (2009). In his study, CSR managers stated that CSR reporting primarily targets investors, non-governmental organizations, and potential employees rather than consumers.

#### 4.3 Website usability

Several respondents had problems finding relevant information. Some respondents had difficulties finding general information about CSR. From their point of view, companies did not disclose CSR information on the web pages about the company and its management. In addition, some respondents said they were unable to find specific information, e.g. regarding the ownership structure of the companies. A further usability problem concerned misleading titles of web pages or hyperlinks. This became evident while several consumers were searching for information about the origin of raw materials. On the website of one company, some of the respondents searched for the raw materials' origin by clicking on the navigation button 'Farmer'. However, this button did not lead to information about the agricultural producers as the respondents expected, but to a password-protected area for farmers.

During the TAPs, the design sometimes hindered the information search. Several respondents were unable to operate the dropdown list of the navigation bar correctly. As a result, they were unable to access the desired web pages and ended up on other web pages. In other cases, the mouse hovered randomly over the navigation bar during the information search, opening the drop-down list of the navigation bar on the company websites which covered up information on the web page. However, the respondents did not grasp why the information was suddenly hidden. Furthermore, respondents did not notice the transition from one web page to the next. The design of the original web page was similar to the newly loaded page, as only the lower part of the web page had changed. Regarding the structure of the websites, few problems occurred.

Several respondents further complained that the information on the websites was too extensive and the presentation of information was too confusing, so relevant information could not be filtered. In this context, two consumers argued that communicating extensive information was a distraction tactic on the part of the company. The respondents also criticized the use of non-self-explanatory terms. These statements were primarily related to the use of English foreign words ('sustainable fisheries partnership', 'corporate social volunteering'), abbreviations ('DIN EN ISO') or technical terms ('green genetic engineering'), which were not defined on the websites or only understood after intensive reading of the text.

'[...] they express themselves incomprehensibly for the average citizen. I wonder who would keep on reading.' (female, 57)

Based on the overall results, it can be concluded that few usability problems occur and that information on CSR is generally available to respondents. However, the recognized problems of user-friendliness are challenging as consumers who do not find the requested information may assume that companies have not implemented certain CSR activities they were looking for. Navigation problems could create further frustration during the information search, leading consumers to give up their search (Hoppmann, 2009; Lazar *et al.*, 2003). Furthermore, the study results on user-friendliness only refer to the consumers' point of view. Other relevant target groups of CSR-communication such as business partners, employees, or investors were not included and should be investigated in future studies.

#### 4.4 Processing corporate social responsibility information

Information processing was especially influenced by the specification of information. The respondents referred to the specification level of information 117 times in total. Consumers often criticized the lack of specific information. They criticized companies that did not define CSR terms, e.g. 'responsibility for people and the environment' (female, 43), 'holistic action [...] future-oriented concepts' (female, 56; male, 59) and

‘Caring for Life’ (male, 59). The respondents further requested information on specific activities and wanted to know to what extent these were implemented.

‘[...] it always seems to me as if there is a huge difference between the theory of how to present oneself and how to put it into practice. [...] using big phrases, they try to distract people [...] Yes, that at the end you say: ‘Yes, yes, that’s right’. But he did not understand a word. [...] Well, I don’t like it, because it’s not clear [...] big phrases and nothing specific.’ (female, 56)

On the contrary, several respondents reacted positively when the company defined CSR terms and presented corporate principles.

‘I really liked that they defined what sustainability is and on what they place value.’ (female, 36)

During their information search, many consumers noted that subjects and terms were not clearly presented. This referred, for example, to the quality characteristics of products, e.g. what the term ‘green products’ and ‘high-quality milk’ meant. Some consumers expressed a need for further information on the criteria and control procedures of organic farming.

‘Then where is the control? [...] Which inspectors will check it [...]? Where does it say how this is controlled?’ (female, 56)

The respondents made positive assessments when companies presented background information on their CSR activities, e.g. by listing their CSR projects.

‘So, they support a *seed fund* [...], a *bee association* and *activities against genetic engineering, urban projects* and *kindergartens* [...]. Yeah, well, I’d definitely say social responsibility, so they’re already doing a lot of things.’ (female, 26)

The creation of transparency through the traceability of product origin or information on farmers was also assessed positively by several consumers. Furthermore, mentioning specific figures, e.g. the donation volume for a specific project, or the number of electric cars or bicycles for employees were positively acknowledged by the respondents.

This study supports the theoretical considerations of Du *et al.* (2010) and Schlegelmilch and Pollach (2005) that the specification of information is a central factor influencing the communication effect of CSR on consumers. In addition to the specification of information, the credibility of the message influenced the information processing. During their search for CSR information on company’s websites, many consumers questioned the credibility of the information. Overall, the participants referred to the credibility of the information on the corporate websites 78 times.

At several points, respondents were critical of the fact that their assessment was solely based on the company’s self-presentation. In this context, some consumers further explained that critical aspects of corporate activities would not be communicated by the company.

‘I don’t think there will be any more detailed information on how animals are treated. [...] You would have to google it and then somehow find out about other things. [...] The companies just present themselves. You probably won’t find anything critical there.’ (female, 47).

These results on consumer skepticism are in line with findings of Hartmann *et al.* (2013) and Müller *et al.* (2014) stating that consumers often question the credibility of a company’s CSR communication on its website. At the same time, however, the consumers perceive some of the information found on the website as credible, confirming the findings of Cheung *et al.* (2009), Cho *et al.* (2009) and Pomeroy and Dolnicar

(2009). In our study, the evaluation of information as credible was associated with the perceived specification of information. Some respondents mistrusted statements on CSR that were not specific. Furthermore, a lack of background information on CSR activities was perceived as non-credible.

*'Family-friendly corporate policy. Let's see what they say. Okay, that sounds good [...]. Promotion of parental leave for fathers [...] part-time employment for parents, parent-child offices in the corporate headquarters. Okay, and those who don't work at the headquarters come away empty-handed.'* (female, 57)

In contrast, several respondents assessed specific information as credible, e.g. an explanation of corporate principles and the focus of their CSR commitment, or the reference to international CSR principles.

*'Despite high production volumes in 2008, water consumption was reduced by approximately 12%. [...] It's also good that [...] they know that water is scarce and that they try to consume less water or reduce their consumption.'* (female, 26)

The statements on credibility were also linked to the respondents' perception of companies' motives for CSR. Credibility was limited if CSR communication was perceived as advertising or as an attempt to embellish the corporate image.

*'How we act sustainably. Acting customer-oriented, being self-responsible. Well, that's what you should do in every store. [...] but it always seems to me as if there is a huge difference between the theory of how to present oneself and how to put it into practice.'* (female, 57)

In contrast, intrinsic motives for CSR were assessed positively. Consumers perceived the communication as credible if CSR was exemplified by the management or if CSR was part of the company's philosophy. These results are in line with findings by Du *et al.* (2010) and Parguel *et al.* (2011) stating that the communication of CSR motives influences the credibility effect positively. There was also a link between the respondents' attitudes towards and experiences with companies and the assessment of credibility. If respondents had negative attitudes towards a company, or if the information did not correspond to individual experiences, the information on the web pages was judged not credible.

*'What do they say about energy, climate, environment? For a sustainable overall concept. Well, if we see the shop at Kirchweg (name of a street), I don't think so.'* (female, 56)

These results are thus in line with empirical findings outside the food industry (Fatma and Rahman, 2015) and theoretical considerations (Du *et al.*, 2010; Schlegelmilch and Pollach, 2005), which identified a connection between the company's reputation and the evaluation of CSR information as credible.

## 5. Conclusions

### 5.1 Limitations

Some limitations need to be considered in the context of this study. First, the generality of the results of the current study is limited due to the qualitative approach of the study and the small sample size. The results only show how consumers search for CSR information and how they generally evaluate it. Hence, it is not possible to link the results on the information search and the information processing with the person-specific determinants of the respondents (e.g. the individual understanding of CSR) and the individual information need. This could, for example, be implemented with a quantitative research design.

The average search duration of seven minutes per company website captured in the clickstream analysis was quite long. This essentially high need for information may partly be due to the experimental data collection

situation. The respondents were specifically requested to search for CSR information on corporate websites and hence, were given an external incentive to conduct the search.

The positive evaluation of the examined websites' usability was partly due to the conscious selection of the examination units. Only those corporate websites whose CSR information was easily found were included in the study design. This study has only considered the corporate website as a communication channel for CSR. Other important channels for CSR have been neglected. Future studies should make a comparison of consumer perception and processing of different CSR communication channels used by food companies. It would be of particular interest to investigate how information processing differs between complex and comprehensive information on websites and relatively short messages on social media and at the point of sale. A further limitation relates to the applicability of the results to non-German consumers. As already mentioned in the introductory sections, German consumers are particularly receptive to CSR issues. Furthermore, there are cultural differences in the evaluation of CSR by consumers (Loussaïef *et al.*, 2014; Singh *et al.*, 2008).

## 5.2 Implications

The present findings reveal crucial steps food companies can take to communicate CSR on websites in a consumer-aligned way. These implications refer both to how the information should be presented on a website and how CSR can effectively be communicated to consumers. Companies should provide comprehensive information on their CSR activities to satisfy the information need of interested consumers. Extensive information on multiple activities should be communicated in various places on the website, including FAQs and corporate principles. To prevent information overload and to ensure that relevant information can be filtered, the information should be displayed modularly to meet the challenge of presenting complex information in specific terms. A modular display organizes information hierarchically on different web pages.

The superordinate CSR web pages should be linked directly via a hyperlink using a meaningful CSR keyword in the horizontal or vertical navigation bar and contain central core information on various CSR topics. The information on the superordinate page should already contain specific information by presenting examples of CSR activities, yet should not be too extensive. Consumers with a low need for CSR information can thus quickly find relevant and specific information. To meet the needs of consumers with a greater interest in CSR information, companies should set hyperlinks from the superordinate web pages to further subordinate web pages where more detailed background information on CSR activities should be displayed. It is also important that companies present how they specifically define CSR and how CSR is integrated into their own company's core strategy to communicate CSR to consumers precisely and convincingly. In this way, companies can credibly defend themselves from so-called greenwashing accusations.

A further crucial element for a more credible CSR communication of food industry companies is the reference to external proof by using certification labels. However, the external certification must be familiar to consumers to be credible. Accordingly, it is important to communicate information about the certification system behind it and to refer to third party independent sources of information. CSR reports are only partially suitable for consumer-aligned communication of CSR on websites since very few consumers searched for information in the reports. It is therefore not enough for companies to merely refer to a CSR report on their website. Rather, it is important that there is a reference to a report indicating that it contains detailed information on specific CSR activities.

The results reveal that multiple factors influence the impact of CSR communication on consumers and that there is heterogeneity among consumers regarding how they evaluate information. A consumer-aligned, effective communication of CSR is, hence, a very complex and demanding task for companies. To meet this challenge, practitioners should test the CSR communication with their customers to customize it to their target group. TAPs are suitable since this method devises specific suggestions for improving CSR communication on websites. Moreover, future research should investigate the factors influencing consumers' credibility assessments to develop a deeper understanding of interdependencies.



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