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# Judging a product by its cover: Packaging sustainability and perceptions of quality in food products

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#### 1. Introduction

Most consumer products are packaged for sale and their environmental footprint therefore depends on not only the product itself but also its package. In order to reduce the environmental footprint of a product, both the intrinsic attributes and the extrinsic attributes of the product (e.g. packaging) can be changed. We define product sustainability as the endeavour to reduce the environmental footprint through altering the intrinsic attributes and thus the composition of the product, for example, by the absence of harmful chemicals or the use of organic ingredients. It is to be noted that intrinsic sustainability can only be communicated via labels and logos; therefore we consider labels and logos as ways to represent these intrinsic attributes and thus the product sustainability. In addition, extrinsic attributes, such as the package, can be redesigned. In this respect, packaging sustainability is defined as the endeavour to reduce the product's footprint through altering the product's packaging, for example, by using more environmentally friendly materials. The question can be raised as to how consumers react to such product changes. Will such alterations have an effect on perceptions of product quality? Assessing this effect is of major importance because in a purchase situation, consumers often search for high performance quality in products in order to get good value for their money (Mugge &

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#### ABSTRACT

In this paper, we test the influence of packaging sustainability on consumers' perceived quality of food products using two experiments featuring raisins, chocolate bars and coffee. First, the results show that the perceived quality of a food product is more positive when it is packed in a sustainable packaging than when it is packed in a conventional packaging. Next, we demonstrate that product sustainability moderates the influence of packaging sustainability. Finally, we show that the perceived naturalness of the product induced by package and product sustainability explains the perception of product quality.

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Schoormans, 2012). A product's performance quality is defined as the perceived superiority and excellence of the product's performance when compared with competing alternatives (Garvin, 1988). As a result, product quality is recognised as an important competitive factor for companies, which can increase their market share and profitability. Furthermore, individuals are usually willing to pay more for products with higher perceived quality (Dawar & Parker, 1994).

In Europe, sales of sustainable products are rising steadily. In the last ten years, sales of organic food have more than doubled (European Parliamentary Research Service Blog, 2015). Perceived quality is generally referred to as a stable motivation for consumers to buy sustainable food products (Magnusson, Arvola, Koivisto Hursti, Åberg, & Sjödén, 2001; McEachern & McClean, 2002; Thøgersen, 2011; van Doorn & Verhoef, 2011). More specifically, consumer research has extensively studied the influence of product sustainability (e.g. organic ingredients) on perceived quality. It has been demonstrated that consumers associate this product sustainability with naturalness of the food (Tobler, Visschers, & Siegrist, 2011), and naturalness positively influences perceived quality. However, in the literature, the influence of sustainable extrinsic attributes of the product on perceived quality has received less attention.

Redesigning the intrinsic attributes of packaged food products into more sustainable alternatives can thus increase consumers' perception of quality and therefore represent a profitable strategy for companies. However, the degree to which the sustainability of extrinsic attributes, such as packaging, contributes to better







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perceptions of quality remains unclear. As the environmental footprint of fast-moving consumer goods packaging is enormous, it is relevant to study whether more sustainable packages would have a positive influence on product evaluations, and more specifically, on perceived quality. Therefore, the central question of this research lies in the extent to which packaging sustainability influences consumers' perceptions of product quality. By investigating the underlying factors of the influence of packaging sustainability on product quality as well as the degree to which product sustainability interacts with packaging sustainability to influence the perceived quality of the product, we build on and contribute to the literature on how consumers use packaging to make inferences about product content.

The remainder of the article is organized as follows. First, we discuss how product and packaging sustainability positively influence the perceived quality of the product and develop the associated hypotheses. These hypotheses are tested in two experiments using three different food products. The paper concludes with a discussion on the findings and implications for managers.

#### 2. Sustainability and perceived quality

## 2.1. Impact of intrinsic product sustainability on the perceived quality of the product

Fast-moving consumer goods can become intrinsically more sustainable in different ways. For example, more sustainable cleaning agents and personal care products can be produced by using natural or organic ingredients or excluding certain chemicals in their composition. In the domain of food products that we are specifically studying in this paper, locally grown products (Dentoni, Tonsor, Calantone, & Peterson, 2009; Feldmann & Hamm, 2015) and organic products (Magnusson, Arvola, Hursti, Åberg, & Sjödén, 2003) are examples of alternatives that are considered more sustainable.

For food products, labels play an important role in the marketing system through their impact on communication and consumer confidence in food quality (Caswell & Padberg, 1992). Research has demonstrated that consumers' perceptions of product properties and product quality was significantly affected by information (Verbeke & Ward, 2006) and that consumers' interest for direct indications of food quality was high (Pieniak, Verbeke, Vermeir, Brunsø, & Olsen, 2007). Precisely, food labels are one of the most used and trusted sources of information by European food consumers (de Almeida et al., 1997). In order to inform individuals about the sustainability of a product's ingredients, specific labels and logos of the product sustainability are usually displayed on the packaging. As such, labels and logos are often the only way for individuals to recognize the intrinsic sustainability of a food product.

Prior research on product sustainability has shown that the impact of product sustainability on perceived quality is generally positive (Haglund, Johansson, Berglund, & Dahlstedt, 1998; Lee, Shimizu, Kniffin, & Wansink, 2013; Lee & Yun, 2015; McEachern & McClean, 2002) with a few exceptions (Luchs, Naylor, Irwin, & Raghunathan, 2010; Newman, Gorlin, & Dhar, 2014; van Doorn & Verhoef, 2011). For example, products valued for their 'strength' attributes such as household cleaners are perceived as less effective when they are described as sustainable (Lin & Chang, 2012; Luchs et al., 2010). In a similar vein, household cleaning products that have been intentionally designed to be more sustainable can be perceived less favourably because consumers believe that companies enhance greenness at the expense of product quality (Newman et al., 2014).

For food products, van Doorn and Verhoef (2011) differentiated the effect of intrinsic sustainability between virtue (i.e. food products that do not offer immediate pleasurable experience but lead to positive long-term outcome) and vice (i.e. products that are pleasurable to consume but can have a negative impact on health in the long run) products. They demonstrated that while virtue products with an organic claim communicated by a logo are perceived as having a higher quality than conventional virtue products, this logo has an insignificant or even negative impact on the perceived quality of 'vice products'. This negative effect of the organic claim is caused by the 'wholesomeness' the logo signals, which in turn reduces the amount of enjoyment and pleasure ascribed to vice products (van Doorn & Verhoef, 2011). However, the majority of studies in this domain have shown that signalling sustainability leads to better perceived quality. More specifically, there is extensive literature showing that organic products are associated with higher quality perceptions because they are perceived as healthier and tastier (Haglund et al., 1998; Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007; Johansson, Haglund, Berglund, Lea, & Risvik, 1999; Lee & Yun, 2015; Lee et al., 2013; Magnusson et al., 2003; McEachern & McClean, 2002).

### 2.2. Influence of packaging sustainability on the perceived quality of the product

In addition to sustainability related to the intrinsic attributes of the product, food companies can communicate the sustainability of their products through sustainable extrinsic attributes. In order to decrease their global environmental footprint, industrial companies and manufacturers are developing more sustainable packaging. Will these investments in sustainable package design affect evaluations of the product? More precisely, would a sustainable packaging have a positive effect on the perceived quality of the product?

From the consumer point of view, a sustainable or eco-friendly package design can be defined as a package design that explicitly or implicitly evokes the eco-friendliness of the packaging via its structure, its graphical or iconographic elements and its informational elements (Magnier & Crié, 2015). A previous study on the topic has shown that a sustainable packaging positively influences the perceived ethicality of the brand and purchase intentions (Magnier & Schoormans, 2015). However, despite the relevance of perceived quality as a motivation to purchase a product, the extent to which packaging sustainability influences the perceived quality of the product was not yet studied.

Package design has been described as a means used by consumers to make inferences about the product and the brand (Becker, van Rompay, Schifferstein, & Galetzka, 2011; Berkowitz, 1987; Gordon, Finlay, & Watts, 1994; Orth & Malkewitz, 2008). Specifically, in product categories, such as FMCG, where the differentiation between products is low, individuals use packaging design elements to evaluate the product. Prior research has in fact shown that packaging design influences perceptions of the product in many ways (Becker et al., 2011; Mugge, Massink, Hultink, & van den Berg-Weitzel, 2014; Orth & Malkewitz, 2008). For example, design elements such as colour and shape influence the perception of product content. Even when the actual content is the same, these studies demonstrated that based on the colour and the shape of the package people judge the taste of food products differently in taste tests (Becker et al., 2011; Dichter, 1964; Gordon et al., 1994).

Although consumers often assess product quality through package design (Mugge et al., 2014), the influence of packaging sustainability on perceived quality of food products still has to be determined. However, considering the existing literature concerning the positive influence of product sustainability on perceived Download English Version:

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