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Research article

Effectiveness of sustainability labels in guiding food choices: Analysis of visibility and understanding among young adults

Azzurra Annunziata [a,*], Angela Mariani [a], Riccardo Vecchio [b]

[a] Department of Economics and Legal Studies, University of Naples Parthenope, Italy
[b] Department of Agricultural Sciences, University of Naples Federico II, Italy

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ABSTRACT

The increasing demand for sustainable food products has driven manufacturers to adopt many sustainability claims, certifications, messages and other information tools to differentiate their goods. The results of an online survey, conducted in southern Italy on a sample of 305 individuals aged between 18 and 26 years, reveal that the level of visibility of sustainability labels is low. In particular, Rainforest Alliance certification and Libera Terra have never been noted by large shares of respondents (respectively 75% and 68%). Moreover, the degree of understanding of these labels is generally low, except for the organic one. The correct definition is stated only by 15% of interviewees for Fair Trade; 25% for Libera Terra and 16% for Rainforest Alliance. Furthermore, there is a significant relationship (χ<0.05) between visibility and understanding for all the labels; suggesting that label visibility strongly impacts the probability of having a higher understanding. Findings suggest that food firms should be cautious investing in sustainability labels unless they are combined with effective information policies to increase familiarity among specific market segments.

1. Introduction

The growing concern of society for the social and environmental consequences of food production and consumption, as well as greater awareness of the unintended negative impacts of individual food choices on global food sustainability, has led to a greater need for information on the impacts of food that we consume daily. At the same time, the increasing demand for sustainable food products has driven manufacturers to adopt a larger number of sustainability food claims, certifications, messages and other information tools to differentiate their goods. Sustainability characteristics of food are credence attributes, and thus *producers and distributors need ways to communicate to consumers, and consumers need ways to identify the desired attributes*" (Sirieix et al., 2013 p. 144).

Labelling has been given an increasingly important role in achieving sustainability goals, providing consumers with the opportunity to consider environmental, social and ethical impacts of their food choices. So-called sustainability labels are regarded as key tools in informing consumers of the impacts of their food choices (Krystallis et al., 2012; Van Loo et al., 2015). Consequently, in recent decades a growing number of public and private voluntary labelling initiatives have been introduced to inform on a range of sustainability aspects of food.[1] Several scholars support the idea that sustainability labels assist in decreasing information asymmetry between supply and demand regarding environmental and social issues (Nikolaou and Kazantzidis, 2016; Shao, 2016). However, the recent proliferation of standards and labels for social or environmental food products jeopardies consumers and may increase scepticism (Aprile and Mariani, 2015; Sirieix et al., 2013; Engels et al., 2010). In addition, information overload, along with other factors, may limit the use of sustainability labels (Nikolaou and Kazantzidis, 2016; Sirieix et al., 2013; Comas Martí and Seifert, 2013; Grunert, 2011; Horne, 2009; Van Loo et al., 2015; Grunert et al., 2014). Furthermore, the use of sustainability labels is not a cost-free option for manufacturers due to the more stringent production (or management) standards imposed, as compared to conventional production. In this regards, it is important to highlight that comparing the same products with and without sustainability labels, evidences suggests that consumers are willing to pay a premium price for goods with sustainability labels (Janßen and Langen, 2017; Lombardi et al., 2017; Van Loo et al., 2015). However, some remarkable differences subsist in relation to type

* Corresponding author.
E-mail address: azzurra.annunziata@uniparthenope.it (A. Annunziata).

[1] Grunert et al. (2014) reported that a survey by the European Commission identified 129 public and private sustainability-related food information schemes available at the EU or national levels (European Commission, 2012), while more recently Janßen and Langen (2017) found that, according to the Ecolabel Index, 148 of the 465 ecolabels include standards for food and beverages (Ecolabel index, 2016).

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of product and the specific sustainability certification.[2] Therefore, it is essential to examine what factors determine the attention of end consumers and their use of such labels (Van Loo et al., 2014).

Evidence suggests that while consumer awareness of certain sustainability standards has increased in recent years, sustainability labels are not always fully understood, and their impact is only weakly positive (Garnett et al., 2015). Thus, in line with the previous literature (Hung et al., 2017; Grunert et al., 2014), the present research was based on the Motivation–Ability–Opportunity (MAO) framework, in which motivation reflects an inner state of activation that moves the consumer to engage in goal-relevant behaviours, effortful information processing and detailed decision making (Andrews, 1988). However, even when motivation is high, consumers may not achieve their goals if their ability or opportunity to do so is low – due to the complex or large amounts of information – or lack of control over information flow limits the opportunity to make decisions. According to this framework, consumers' positive attitude towards sustainability labels will lead to use only if individuals have the ability and the opportunity to behave as expected (Joshi and Rahman, 2017; Vermeir and Verbeke, 2008).

Grunert et al. (2014) suggested that the availability of sustainability labels leads to their use only if accompanied by consumer motivation and understanding. However, even though consumers have shown greater concern with respect to sustainability issues of food, it has not translated into higher use of sustainability labels due to lack of visibility or understanding (Vecchio and Annunziata, 2015; Leach et al., 2016). In particular, the level of understanding of sustainability labels may play a central role in influencing the use of such labels. Low consumption frequencies of sustainable food can be related to lack of label understanding, and understanding might be crucial to foster consumption among individuals that are less motivated (Grunert et al., 2014).

Based on this framework, the present study aims to provide insights into the factors that determine attention to, and understanding of, four sustainability labels (organic, Rainforest Alliance, Fair Trade and Libera Terra) among young adults (18–26 years). The research target was selected because young adults are a key stakeholder in the conceptualization of sustainable living and practice (Vermeir and Verbeke, 2008; Hume, 2010; Aprile and Mariani, 2015) as they represent the consumers of the future. Youths tend to search for more information before making an actual purchase and are keener to accept innovative products compared to other generations (Kanchanapibul et al., 2014). Specifically, present study addresses two core research questions: (1) what is the level of visibility and understanding of sustainability labels among young adults? (2) what are the drivers of understanding of sustainability labels (socio-demographics, lifestyle, personal values, visibility)?

2. Material and methods

The present study was conducted by applying an online survey. The questionnaire was pre-tested on a sample of 30 young individuals to detect any possible misinterpretation, error or duplication. Based on this test, adjustments were then made to the final questionnaire. The survey was delivered through the web platform "survey monkey" and advertised via social networks, blogs, online forums and word of mouth. Snowball sampling was also applied. Participants had to be at least partially responsible for food purchases of their household, this screening was performed in the first, welcoming page. According with existing literature (Wright, 2005), on line surveys carry several important advantages, as: low costs for researchers, simple and low time-consuming for respondents (especially for younger individuals) However, this data collection technique might introduce some bias in terms of over representation of some socio-demographic characteristics (i.e. respondents with higher levels of education and greater household annual income) and is prone to self-selection bias (e.g. individuals interested on the topic are more keen to respond). In addition, on-line responses may be affected by social desirability bias (respondents tend to answer in the socially approved manner), which limits inferences of actual behaviours. Nevertheless, all data were collected anonymously to limit this potential bias.

The final sample included 305 individuals[3] living in southern Italy, aged between 18 and 26 years old. The online questionnaire[4] was organized in five sections to measure the following aspects: (a) respondents' use of food labelling information; (b) personal values and food sustainability concerns; (c) visibility, understanding and perception of different sustainability labels of food products; (d) consumption frequencies of foods with sustainability labels; (e) socio-demographics and lifestyle variables.

Use of labelling information was measured by asking for the frequency of reading the information on the label in general and then the frequency of reading specific information on the label, as done in previous research (Grunert et al., 2014; Gracia and de Magistris, 2016).

Personal values and food sustainability concerns were then collected to investigate the motivations that may lead to higher interest in sustainability-labelled food. Indeed, several studies reported that personal values[5] influence pro-environmental behaviour, as well as ethical and sustainable consumption patterns (Caracciolo et al., 2016; Ladhari and Tchetgna, 2015; De Pelsmacker et al., 2005; Thøgersen and Ölander, 2002). For personal values 10 items from the Rokeach (1973) Value Scale (RVS) were applied, asking respondents to rate each statement on a five-point scale (with 1 = "not at all" and 5 = "very much") (see Table 2). RVS[6] is a very popular scale and widely applied in sustainable consumption literature (see, among others, Allen, 2001; Dickson, 2000; Ladhari and Tchetgna, 2015).

Food sustainability concern was measured through 10 different statements related to sustainability in the food sector, selected from the scale proposed by Grunert et al. (2014) and previously used in other research on sustainable food consumption (Van Loo et al., 2015). For each item participants were asked their level of concern on a five-point scale (ranging from 1 = "not at all" to 5 = "very much") (Table 3).

[2] Lombardi et al. (2017) for example show that consumer are willing to pay a price premium for both carbon foot print and organic labelling for milk. While Van Loo et al. (2015), investigating coffee, found that participants' utility increased when Organic, Rainforest Alliance and Fair Trade labels are present compared with no label option, but not for Carbon Footprint label. Similarly, Janßen and Langen (2017) revealed that consumers are willing to pay a premium price for milk with sustainable labelling (Organic, GM-free, Local, Animal welfare and CO^2-reduced), finding also three different consumer segments with well-distinguished preferences.

[3] Over 69 questionnaires were found to be incomplete and were therefore excluded from the current study. Furthermore, 21 completed surveys were removed after controlling response time due to careless or insufficient effort (C/IE) in responding (Huang et al., 2012).

[4] The questionnaire was pre-tested on 30 young individuals to detect any possible misinterpretation, error or duplication.

[5] According to Rokeach (1973) personal values are defined as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence".

[6] Previous research suggested that eight values of the Rokeach (1973) list are irrelevant to consumption behaviour: national security (protection from attack), salvation (saved, eternal life), mature love (spiritual intimacy), true friendship (close companionship), a world of beauty (beauty of nature and the arts), wisdom (a mature understanding of life), a sense of accomplishment (a lasting contribution) and self-respect (self-esteem).