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Corporate Social Responsibility certifications influence consumer preferences and seafood market price

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ABSTRACT

This study analyzes consumer preferences toward Corporate Social Responsibility (CSR) aspects of canned tuna fish in relation to environmental and social responsibility. The analysis investigates the different existing labeled standards on canned tuna fish, evaluating the effects of such CSR-labeled information on market price and consumer choice. Data collection was carried out at a retail store and respondents were interviewed only after they had put a tin of canned tuna fish, chosen from among those available in the real choice set, in their shopping basket. Data were analyzed using two different, but complementary, methods: hedonic pricing and random utility models. Results show that consumers are in search of environmental and social sustainability attributes for canned tuna fish. Indeed, especially concerning the environmental dimension, consumers prefer green products more than their ordinary counterparts. The findings indicate that products with environmental certifications are priced higher than regular non-certified products, while those with social certifications are priced similarly to regular products. With regards to consumer choice, canned tuna with environmental or social certifications is preferred as opposed to the non-certified product, with both types of certifications showing a similar willingness to pay. The willingness to pay for such products seems to increase, *ceteris paribus*, with income and decrease with age. By combining the experimental findings of the two models adopted, managerial and policy implications are drawn.

1. Introduction

In recent decades, a noticeable amount of public concern about environmental and social aspects of food production, including fishery management and utilization, has arisen (Uchida et al., 2014). The whole food sector has experienced a growth in the number of initiatives related to the practice of Corporate Social Responsibility (CSR) (Freeman et al., 2010). According to the European Commission, CSR is "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (European Commission, 2001). Thus, CSR may be identified by two main key dimensions: social and environmental responsibility (Luhmann and Theuvsen, 2016). Environmental responsibility mainly relates to corporate activities protecting the natural environment, whereas social responsibility refers to initiatives that protect the social welfare of key stakeholders (Lockett et al., 2006). The result of this concern is that nowadays most food producers and processors are engaged in some forms of CSR, communicating their activities through different media platforms and also via product labeling (Romani et al., 2016).

Moving more specifically to the fishery industry and seafood production, literature highlights an increasing need for a wider system approach to seafood certification (Alfnes, 2017). The greater institutional attention in Western European countries toward the protection of a wide range of sustainability aspects of fishery is also related to the growing consumer preference toward the different sustainability-related aspects of seafood products (Maroušek et al., 2015). Important social and environmental issues related to fishery are at stake (Banterle et al., 2018). Seafood consumers in developed

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countries are increasingly sensitive to more articulated credence attributes that include a wide range of intangible and interconnected characteristics, such as environmental and ecosystem conservation, product origin, creation of employment, support for small-scale enterprises, preservation of local rural communities, and workers' rights (Brécard et al., 2009).

To date, it is possible to observe, on the one side, a proliferation of different certifications aimed at managing and conserving marine resources and, on the other, at safeguarding small local communities (Parkes et al., 2010). Such schemes may differ in relation to the ownership of the standard and/or to the type of CSR-related certified attributes. With regard to the scheme ownership, it is possible to distinguish: (i) third party certification schemes; (ii) internationally accepted protocols provided by NGOs (e.g., FAO guidelines); (iii) private labeling schemes imposing the adoption of rules for sustainable fishery (mostly rules and protocols set up by the main retailers); and (iv) certifications approved by national governments mostly oriented to the preservation of local marine biodiversity (e.g., Scottish salmon, Queensland catch, Responsible Alaska seafood, North Carolina's local catch) (McClenachan et al., 2016). Regarding the type of CSR-related certified attributes, it is possible to distinguish between certifications aimed at preserving both the environmental and social aspects of fish production (i.e., Best Aquaculture practices certified, Aquaculture Stewardship Council certification, and FAO guidelines for aquaculture certification), and schemes that focus on a specific dimension of corporate responsibility. For example, the standards Dolphin safe, Friend of the Sea, and Marine Stewardship Council certified impose rules mostly related to the environmental sustainability of production. Specific social regulation for seafood does not exist yet. The lack of appropriate legislation on ethical issues, related to the production side, leads to a risk of unethical behavior by food manufacturers (Maroušek et al., 2016). As a response to such normative context, voluntary standards have begun to emerge. Indeed, all certifications, aiming specifically at safeguarding the social attribute of fish products, are provided by private certification initiatives (mostly by retailers with their own private labels) or by the Social Accountability standard—SA8000, which guarantees firm efforts in managing corporate activities in an ethical manner (Gutierrez et al., 2016).

The decision for a company to implement CSR is voluntary, but not exempt from adoption costs (Banterle and Stranieri, 2013). These costs, however, are likely to be different depending on the type of certification adopted, and it is unclear as to what extent these costs are directly transferred to final consumers via market price. On the demand side, whether consumers are able to value this specific firm effort through a price premium is also still uncertain. Indeed, studies on consumer preferences on CSR aspects, particularly concerning the fishery sector, are still scarce (Hartmann, 2011). Moreover, the mechanism by which consumers recognize the value of CSR-related attributes is complex since it is related to several behavioral factors (Lombardi et al., 2015). For instance, consumer trust in the stakeholders operating in the food supply chain plays an important role in the effective market recognition of "responsible" product attributes, especially if products are produced in foreign countries (Vlachos et al., 2009).

Based on such considerations, the current study addresses the following two research questions.

i) What is the impact of social and environmental CSR-related certifications on the market price formation process of canned tuna fish?
ii) What are the effects of CSR-related labels on consumer choices of canned tuna fish and on their relative willingness to pay (WTP)?

To obtain answers to both of the questions above, two revealed preference (RP) analyses were conducted examining actual market transaction data[1] (prices and purchases) of the canned tuna fish available on the shelves of a large grocery retailer in Italy. The choice of the specific product is related to the fact that canned tuna is one of the most common fish commodities globally and that its sustainability represents an important issue for producers, sellers, and consumers (Leadbitter and Benguerel, 2014). FAO (2016) estimates that almost 25% of processed tuna is sold in preserved form. Europe is the world's largest canned tuna market, and Italy represents one of the main markets for tuna consumption, with 2.33 kg/year/inhabitant of canned tuna (Fattore et al., 2015).

The current study contributes to the specific literature in the following ways. Most of the existing studies on canned tuna fish have focused only on safety aspects (Lim et al., 2009) and environmental impact (Hospido et al., 2006). Only a few studies have analyzed canned tuna fish from a consumer perspective (De Magistris et al., 2015), and many of these have focused on health-related information (Roosen et al., 2007). This current study, instead, focuses both on environmental and social quality attributes of such a product.

Thus, both the analysis of the market price formation process and the assessment of consumer preferences and WTP toward CSR-related labels give new insights on this topic. Moreover, the methods adopted in this study integrate two RP tools analyzing actual market transaction data (prices and choices). Such methods are useful to analyze the so-called "CSR-paradox" (Öberseder et al., 2011), namely, the social desirability bias that characterizes consumer evaluation of CSR aspects (Smith and Langford, 2009). Thus, the present study is innovative both for the topic under analysis as well as for the methodology adopted for eliciting consumer preferences. Indeed, most of the existing literature has been carried out using stated rather than RP surveys (Stefani et al., 2012).

The remainder of the paper is organized as follows. Section 2 discusses the research hypotheses of the study. Section 3 describes the methodology and data collection. Section 4 presents the results. In Section 5, a discussion of the results is provided. Finally, the paper ends with some concluding remarks.

2. Research hypotheses

This study aims at gaining better insight into the role that social and environmental CSR-related standards play on the market price formation process of canned tuna fish. Besides the societal benefits, CSR implementation may potentially provide benefits to the company, in terms of reputation, attractiveness, performance, and access to markets, as well as explicit costs (Weber, 2008). For instance, Merli et al. (2015) identified certification costs as one of the main barriers to implementing SA8000 for small and micro companies. For CSR implementation to be sustained over time, costs incurred by firms need to be counterbalanced by a premium price for "responsible" products (Maloni and Brown, 2006), otherwise if these costs exceed their benefits, a market failure is likely to arise (Kitzmueller and Shimshack, 2012). Analysis of the price formation process provides direct information on the market equilibrium between production costs related to the CSR implementation and the corresponding price premium. Indeed, a better understanding of the price formation process could help

[1] The main advantage of the RP methods is the use of real market data. However, RP analyses are largely limited to analyzing current market situations and they are not useful for measuring (or predicting) preferences for attributes (or their combinations) that are not currently observed.