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## Nutritional information and health warnings on wine labels: Exploring consumer interest and preferences

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#### ABSTRACT

This paper aims to contribute to the current debate on the inclusion of nutritional information and health warnings on wine labels, exploring consumers' interest and preferences. The results of a survey conducted on a sample of Italian wine consumers (N = 300) show the strong interest of respondents in the inclusion of such information on the label. Conjoint analysis reveals that consumers assign greater utility to health warnings, followed by nutritional information. Cluster analysis shows the existence of three different consumer segments. The first cluster, which included mainly female consumers (over 55) and those with high wine involvement, revealed greater awareness of the links between wine and health and better knowledge of wine nutritional properties, preferring a more detailed nutritional label, such as a panel with GDA%. By contrast, the other two clusters, consisting of individuals who generally find it more difficult to understand nutritional labels, preferred the less detailed label of a glass showing calories. The second and largest cluster comprising mainly younger men (under 44), showed the highest interest in health warnings while the third cluster - with a relatively low level of education - preferred the specification of the number of glasses not to exceed. Our results support the idea that the policy maker should consider introducing a mandatory nutritional label in the easier-to-implement and not-too-costly form of a glass with calories, rotating health warnings and the maximum number of glasses not to exceed.

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### 1. Introduction

In light of rising diet-related chronic disease and the consequent public health costs, nutritional and health information on labeling has received considerable attention in the past two decades in both research and public policy discussions. Nutritional labeling on food is currently mandatory in many countries and will take effect from 2016 in the European Union under Regulation 1169/2011, which entered into force on 13 December 2014.

Wine labeling requirements around the world are quite diverse and limited compared to labeling on food products. For instance, very limited nutritional information is required only in the USA and in the Russian Federation; the number of standard drinks included

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<sup>1</sup> Health warnings consist of information for the consumer on the labels of alcoholic beverages about the health risks associated with alcohol consumption.

in each container is a requisite in Australia, while in a handful of countries health warnings are mandatory<sup>1</sup> (Eurocare, 2011; Martin-Moreno et al., 2013; Wilkinson & Room, 2009).

In the EU wine, and more generally all other alcoholic beverages, have been temporarily exempted from nutritional labeling obligation under Regulation 1169/2011. Pending a Commission report on the topic, there is a fierce debate on the need and usefulness to introduce a mandatory nutritional label together with a health warning as a tool to promote more health-conscious drinking patterns in society (Eurocare, 2014).

Extensive research has shown that labels constitute a key source of information for wine consumers, providing details on both intrinsic and extrinsic quality cues (e.g. Lockshin & Corsi, 2012). When choosing wine, consumers have been found to react to labeling information and label style (Lockshin, Mueller, Louviere, Francis, & Osidacz, 2009; Mueller, Lockshin, Saltman, & Blanford, 2010; Mueller & Szolnoki, 2010). At the same time, labels on wine bottles are the most cost-effective form of marketing promotion and a ready information source for producers to communicate





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directly to their customers at the sales outlet (Rocchi & Stefani, 2006). However, to the best of our knowledge, there remain significant gaps concerning consumer interest in nutritional and health information on wine and the efficacy of these initiatives to drive consumer decisions toward more healthy and balanced choices, contributing to the enhancement of public health. To date, few studies have analyzed this issue, often reaching contradictory results. While some reveal the strong interest expressed by consumers in including nutritional information on wine labels (Kypri et al., 2007; Thomson, Vandenberg, & Fitzgerald, 2012), others have demonstrated that the same inclusion may have both potential benefits and unintended consequences (Bui, Burton, Howlett, & Kozup, 2008). Moreover, little evidence has been provided from previous research into wine nutritional and health labeling based on data collected from European consumers (GfK Report, 2014) and up to now no research has been carried out in a core wineconsuming country, such as Italy.

The current paper aims to fill this gap in the literature by analyzing Italian consumers' interest in, and preferences for nutritional labeling and health warnings on wine, and by evaluating the most effective ways to provide useful information for consumer decision-making. Specifically, the following research questions are investigated: i) are consumers interested in nutritional information and health warnings on wine labels? ii) What specific information would they like to find and in what format would they prefer to receive it? iii) Is it feasible to identify distinct segments of respondents characterized by different preferences?

In order to respond to these research questions the current paper presents the results of a survey on a sample of 300 Italian consumers, applying conjoint and cluster analysis. The paper is structured as follows: a theoretical background drawn from the literature on nutritional labeling on food and beverages is presented, followed by a section describing the analytical method used, including an explanation of the constructs and variables used in the questionnaire and the analytical procedures applied. Subsequently, an empirical results section is presented; finally, conclusions are drawn and policy implications are discussed.

#### 2. Theoretical background

Labeling is widely recognized to be a powerful quality signal and a direct shopping aid to consumers (amongst others see Caswell, 1998). Economic theory highlights the fact that labeling is particularly useful in two general economic situations: 1) when the market is affected by asymmetric or missing information, since the label reduces consumer uncertainty and transforms credence attributes into search attributes (Mojduszka & Caswell, 2000); 2) in the case of externality problems, when individual consumption decisions affect social welfare differently from the way they affect the individual consumer's welfare (Golan, Kuchler, Mitchell, Greene, & Jessup, 2000).

Economic theory also suggests that the utilization of labeling information is an active process that involves searching out information, evaluating its meaning, and making a decision based on that evaluation (Gracia, Loureiro, & Nayga, 2007). Hence consumers will continue to acquire and process information as long as the cost of additional acquisition and processing do not outweigh the additional benefits (Akerlof, 1970; Stigler, 1961). In particular, with specific reference to the nutritional and health information on food labels the benefits of such labeling depend on the extent to which consumers use such information in their food purchasing choices (Cowburn & Stockley, 2005; Loureiro, Gracia, & Nayga, 2006). Overall, the literature on the effectiveness of food labeling in changing dietary habits remains ambivalent (for a critical review see Hieke & Taylor, 2012); while there are few studies on alcoholic beverages and even fewer focused on wine. Thus the main point of reference has to be the literature relating to food labeling in general.

Numerous studies have shown the existence of several factors which influence consumers' interest in, and use of nutritional and health information and hence the effectiveness of these interventions to drive consumers' decisions toward healthier, balanced choices (Drichoutis, Lazaridis, & Nayga, 2005; Gracia et al., 2007). Following previous research (Barreiro Hurlè, Gracia, & De Magistris, 2010; Drichoutis et al., 2005; Drichoutis, Lazaridis, & Nayga, 2006) we may summarize factors affecting interest in, preferences and use of, nutritional information on food labeling into the following categories: (a) individual characteristics (gender, age, education, household size); (b) situational and behavioral factors (economic conditions, time constraints, special diet status, etc.); (c) nutritional knowledge and awareness of linkages between diet and health; (d) product involvement: (e) label format and wording.

In considering individual characteristics several works converge on the conclusion that women are generally more interested in nutritional and health information than men and that a higher level of education positively affects the use of nutritional information (Drichoutis, Lazaridis, Nayga, Kapsokefalou, & Chryssochoidis, 2008; Kim, Nayga, & Capps, 2001a; Nayga, Lipinski, & Savur, 1998). With specific reference to alcoholic beverages, Kypri et al. (2007) and Thomson et al. (2012), in their research on attitudes toward nutritional and health labeling, found that support for the provision of nutritional information was considerably greater among women. Household size and the presence of children living at home also positively affect interest in, and use of, nutritional information (Drichoutis et al., 2006; Kim et al., 2001a). By contrast, age has been found to affect use of nutritional labels in different ways: while several studies have found that middle-aged or younger adults are more likely to use nutrition labels than older individuals (Louriero et al., 2006; Kim et al., 2001a), others have found that older consumers tend to use and trust nutrition labels as a source of accurate nutrition information more than their younger counterparts (Drichoutis et al., 2005; Worsley, 2003).

Also with reference to situational and behavioral factors, the impact of economic conditions on the use of nutritional labeling is unclear: while several studies found that consumers with larger incomes are more likely to use and compare nutrition information labels while shopping (Nayga et al., 1998; Wang, Fletcher, & Carley, 1995), other research found that income affects only consumer nutrition knowledge but not label usage (e.g. Nayga, 2000). As regards working status, again no definitive conclusion can be drawn since some studies showed that unemployed or retired consumers are more likely to use nutritional labels (Nayga, 2000; Nayga et al., 1998), whereas others revealed that it is employed consumers who are more likely to use information on nutrition (Drichoutis et al., 2005). In contrast, time pressure has been found to limit individuals' search for nutrition information (Drichoutis et al., 2005; Kim, Nayga, & Capps, 2001b; Lin & Lee, 2003; Žeželj, Milošević, Stojanović, & Ognjanov, 2012) while current health and diet status show a positive effect on the search for such information (Drichoutis et al., 2008; Kim et al., 2001b).

With regard to nutrition knowledge, the literature strongly supports the assumption that better educated consumers are more likely to be interested and use nutritional and health information on labels when shopping (Barreiro-Hurlé et al., 2010; Grunert, Fernández-Celemín, Wills, Storcksdieck genannt Bonsmann, & Nureeva, 2010). Although it is reasonable to expect that nutrition knowledge can affect the use of nutritional labels, label use may also affect nutrition knowledge, as consumers can gain more knowledge as they read more nutritional information on labels Download English Version:

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