Health warnings on wine labels: a discrete choice analysis of Italian and French Generation Y consumers

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Abstract

This paper aims to analyse Generation Y consumers' preferences for, interest in and attitudes towards different formats of health warnings on wine labels in two countries with different legal approaches: France and Italy. A Discrete Choice Experiment was realized on a sample of 500 wine consumers. Three warning options were applied: the long-term effect of drinking (brain damage); a short-term effect (car crash) and no warning option. Four attributes composed the choice set: alcohol content; framing of warning statement; warning size and position. Findings reveal that both the general degree of attention to the label and the level of visibility of the warnings are low, as are their effectiveness in changing consumption. Generation Y tend to prefer the "no logo option", short-term effects warnings and a small logo posted on the back label with neutrally framed messages. Results also show some significant differences among preferences in France and Italy, providing inputs to the ongoing debate in the EU on mandatory labelling. Although findings are subject to limitations related to the use of self-reported questionnaire and prone to social-desirability bias, practical implications are clear for private companies interested in implementing marketing strategies focused on enhancing the efficacy and readability of labels.

1. Introduction

Harmful alcohol consumption among young individuals represents an increasing concern due to many negative short-term and long-term health effects. Short — term health consequences may occur as a result of one drinking occasion, and they have a wide range of possible outcomes, which depend on how much people drink and their overall physical condition (e.g. motor vehicle accidents, alcohol poisoning, lack of coordination and slower reflexes). While long-term health consequences are related to the side-effects generated by continued and massive alcohol consumption (e.g. cancer, brain damages, heart and blood disease). According to the World Health Organization (WHO) worldwide alcohol consumption causes death and disability relatively early in life. In particular, in the 20—39 years age group approximately 13.5 % of the total deaths are alcohol-attributable (WHO, 2018). At the same time, heavy episodic drinking is significantly rising among young people in Europe as well as in other high-income countries (WHO, 2018; ESPAD, 2015), along with alcohol-related car incidents involving them (Missoni et al., 2018).

Furthermore, recent studies suggest that the alcoholic beverage consumption behaviour of European consumers, especially those from Mediterranean countries, has gradually been changing towards unhealthy patterns (Agnoli et al.,

2018). Beyond health consequences, it should also be noted that the harmful consumption of alcohol brings significant social and economic losses to individuals and society at large.

Providing consumers with information about, and labelling of, alcoholic beverages to indicate their negative outcomes represents a priority according to the recommendations of the WHO Global Strategy to reduce harmful use of alcohol (WHO, 2010). As a consequence, the introduction of warning labels on alcoholic beverages is a policy area of renewed interest, aimed to increase consumer awareness of the side effects linked to poor consumption patterns and to reduce the negative external consequences related to an excessive consumption of alcoholic beverages (Hassan & Shiu, 2018; Eurocare, 2016; Martin-Moreno et al., 2013). Nevertheless, while a number of countries in Europe have introduced mandatory warning labels on alcoholic beverages, currently a voluntary and unregulated approach still prevails. According to the WHO European Region data, warning labelling is not required in the majority of Member States, and there are significant differences in national legislation among the 13 countries that have introduced mandatory warnings[1] (WHO Europe, 2017). France was the first member state to require producers to inform consumers about the dangers associated with the consumption of alcoholic beverages. Indeed, since 2007 it has been mandatory in France to include the following message on the label of every alcoholic beverage: "consumption of alcoholic drinks during pregnancy, even in small amounts, may have serious consequences on the child's health"[2]; or to use a specific pictogram (Dossou et al., 2017). On the other hand, in other countries like Italy a voluntary and unregulated approach is still working. Therefore, many public health and consumer associations are urging the implementation of mandatory health warning labels on alcoholic beverages at EU level (EUROCARE, 2016).

In 2015, the European Parliament adopted a resolution on the European Alcohol Strategy, which clearly emphasised the need to improve the labelling of alcoholic beverages with particular reference to both nutritional information and potential side effects, through the adoption of a harmonised strategy at European level (EU Parliament, 2015). More recently, some alcoholic beverage producers have started to promote several initiatives to voluntarily place health warnings on labels. For example the Beer, Wine and Spirits Producers' Commitments 2013−2017 includes adding to packaging a standard set of symbols or equivalent words to discourage drinking and driving, consumption by underage individuals, and consumption by pregnant women (IARD, 2018).

Many studies analysed the impact of the introduction of alcohol warning labels on consumer attitudes, knowledge and behaviour revealing mixed results (for a review see Hassan & Shiu, 2018; Stockwell, 2006). Some studies suggest that consumers support the introduction of warning labels

(Annunziata et al., 2017; Thomson et al., 2012) and that they may improve knowledge and attitudes regarding the harmful consequences of alcohol consumption among adults (Stockwell, 2006 Wigg & Stafford, 2016; Vallance et al., 2017). Other studies have found either little impact, no behavioural changes or even reverse effects of alcohol warnings on drinking intentions (Kersbergen & Field, 2017 Glock & Krolak-Schwerdt 2013; Brown et al., 2015; Dossu et al., 2017). In this regard Scholes-Balog et al. (2012), report that beyond the adult population, alcohol warnings have little efficacy in affecting beliefs, risk perceptions or alcohol consumption in adolescents, while Coomber et al. (2015) highlight that current warning labels fail to effectively transmit health messages to the general public. With specific reference to wine consumers Kozup et al. (2001), found a potential boomerang effect of a health warning, revealing that drinkers had more favourable attitudes towards the product when a warning was available compared to when it was not.

Several researchers have also explored consumer reactions to alternative formats of warning or pictorial labels, highlighting the importance of framing and the emotional appeal of a health warning (Al-Hamdani & Smith, 2016 Kersbergen & Field, 2017; Krischler & Glock, 2015; Jarvis & Pettigrew, 2013). In this regard Jarvis and Pettigrew (2013), explored negatively and positively framed messages and found that negative ones had the highest utility for those who report higher consumption of alcohol Pettigrew et al. (2014). revealed that general warnings were perceived as more believable, convincing and personally relevant compared with specific warnings. Conversely Creyer et al. (2002), showed that specific warnings led to greater risk perceptions than the generic US warning Coomber et al. (2015). examined the efficacy of the mainly text-based Australian warning label and recommended that highly visible graphic warning labels should be used to deliver behaviour change Krischler and Glock (2015). used pictorial warnings in combination with text to assess the effect of the text framed as a statement and underlined that young adults respond better to warnings formulated as questions. In addition Thomson et al. (2012), found that messages matched with the type of drink (e.g. wine, beer and vodka) were more relevant and acceptable to consumers. However, most of these studies were performed in the United States or Australia and analysed beer or spirits, while the interest and attitudes of European consumers towards wine labelled with health warnings have not yet been fully explored (Annunziata et al., 2016).

In this context, the main objective of this paper is to analyse the interest, attitudes and preferences of Generation Y consumers[3] (those born between 1978 and 2000) towards

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[1] The 2018 WHO global survey on alcohol and health reported that warning labels regarding pregnancy are mandatory in 13 Member States; underage drinking in 12; and drink−driving in 11.

[2] Authors' translation.

[3] In literature there is no agreement on the start and the end points for Generation Y. Some Authors consider this generation as born between 1981 and 1999 (Brosdahl and Carpenter, 2011; Bolton et al., 2013) others consider individuals born between 1980 and 2000 (Cennamo and Gardner, 2008). In the present study, the age range was established considering the minimum age allowed for purchasing alcoholic beverages in Italy, and the upper limit of Generation Y suggested by specific literature on wine consumption (e.g. Agnoli et al., 2011 Mueller and Charters, 2011; Atkin and Thach, 2012).

different formats of health warnings on wine labels applying a Discrete Choice Experiment and analysing two countries: Italy and France. It is interesting to compare these two countries as they have different legal approaches: mandatory warnings are imposed in France, while in Italy a voluntary approach is applied. The results can provide inputs to the ongoing debate in the EU on labelling and practical implications for private companies, in defining wine labelling programs and implementing marketing strategies focused on enhancing efficacy and readability of labels.

2. Material and methods

2.1. Questionnaire design and target population

Data was collected through an online survey, using the LimeSurvey platform. A questionnaire was administrated to a convenience sample of Generation Y consumers from Italy and France. Generation Y was selected as the target population since they are likely to represent the most relevant market segments for the wine industry in the near future (Agnoli et al., 2011; Atkin & Thach, 2012), due to their increasing wine consumption both in volume and frequency (Mueller & Charters, 2011). In addition, several researchers highlight the growing tendency of younger generations to change their drinking-style towards more unhealthy habits (Agnoli et al., 2018; Istat, 2015). Finally, according to other studies these individuals are extremely proficient with computer-based surveys (Vecchio, 2013; Szolnoki & Hoffmann, 2013).

The survey questionnaire was structured into five sections. The first section aimed at collecting socio-demographic and lifestyle variables. The second section was focused on the attention paid to information on the label of alcoholic beverages, the degree of visibility and recall of warnings currently on the label and the related effects on respondents' drinking behaviour. The third section measured alcohol consumption patterns using selected questions from the Alcohol Usage Questionnaire (AUQ)[4] developed by Mehrebian and Russell (1978). This section also included questions about the introduction to alcohol and preferred consumption venues. The forth section incorporated a discrete choice experiment, as described in the next section. The final section included questions related to participants' concerns about the short-and long-term side effects of alcohol consumption (Vecchio et al., 2017; Coomber et al., 2017).

The survey was advertised through social networks, blogs, online forums and word of mouth. Two samples of 250 complete responses each were collected from January to April 2018 in the two analysed countries.

2.2. Choice experiment design

A Discrete Choice Experiment (DCE) was applied to estimate consumer stated preferences for different health warnings on wine labels (Louviere and Woodworth, 1983). The design was composed with three alternatives: two different non-mandatory warnings, to avoid distorting the importance of levels and attributes due to consumer previous experience, plus the no warning option. These health warnings about the negative effects of alcohol on the brain and on driving ability were selected as they were identified in the literature as being salient to alcohol consumption decisions (Jarvis & Pettigrew, 2013; Kaskutas & Greenfield, 1992), and also because one is related to the short- and the other to the long-term effects of drinking (Coomber et al., 2017). Four attributes comprised the selected alternatives/warning logos, with different levels, as reported in Table 1.

With reference to the statement framing, according with previous research (Jarvis & Pettigrew, 2013 Krischler & Glock, 2015; Miller et al., 2016) for each of the two warnings we developed two statements with a positive and a negative frame; in order to detect the relevance of framing in influencing health message effectiveness. Considering that previous research suggests that the size and position are relevant attributes in determining the attention to warning labels (Kersbergen & Field, 2017) we also decided to include two options for the warning size (big and small) and position (front or back) in line with previous studies (Al-Hamdani, & Smith, 2017, Al-Hamdani, & Smith, 2015; Wigg & Stafford, 2016). For alcohol content, according to previous studies, three levels of alcohol content (low, medium and high) were selected, in order to evaluate the influence of this attribute on young consumer choices (Jarvis & Pettigrew, 2013).

An orthogonal design was built depicting hypothetical choice situations including bottles of wine and combining the identified alternatives, attributes and levels. This orthogonal design constituted the bases for a pilot study involving 50 young wine consumers from the analysed countries. Results highlighted prior use to build a D_b-efficient design (Ferrini and Scarpa, 2007; Sándor and Wedel, 2001). The final choice design consisted of 12 choice sets of three wine bottles each,

Table 1
Alternatives, attributes and levels of the DCE.

Alternatives/Logos	Risk of brain damage (long-term effect)
	Risk from drink/driving (short-term effect)
	No logo
Attributes	Levels
Message	Neutrally framed
	Negatively framed
	No warning message
Logo position	Back label
	Front label
Logo size	Big
	Small
Alcohol by Volume	11.5%
	12.5%
	13.5%

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[4] This questionnaire has been widely used in other studies related to alcohol warning labels (among others, see Stafford and Salomon, 2017).

divided into three blocks of four choice situations. Consequently, every respondent had to choose their preferred bottle of wine in four groups of three bottles each. The bottles were graphically represented, showing both the front and the back label (Figure 1). In order to increase the overall degree of realism, a Cabernet Sauvignon wine was chosen for the two countries with a fictitious brand. Consumers were asked to choose the preferred bottle to drink during a dinner with friends, which is a typical consumption situation for individuals belonging to Generation Y (Mueller & Charters, 2011).

2.3. Statistical and econometric analysis

Descriptive univariate and bivariate analyses were performed to have a synthetic description of the main variables revealed with the questionnaire. ANOVA analysis with a t-test and Chi-square test were applied in order to verify the existence of significant differences among the two samples and compare respondents' profile in the two analysed countries.

Random Utility Models were applied to estimate the importance of the different alternatives, attributes and levels of the discrete choice experiment. They draw from (1) Lancaster (1966) who postulated that the utility that consumers get from a good does not depends on the good itself, but on the different elements/attributes shaping the good, and (2) from random utility theory, according to which the utility for an individual in consuming a good is composed of two parts: one that can be observed and comes from the properties of a good, and the other one that is stochastic and cannot be observed by the researcher (Thurstone, 1927).

This study applies the Multinomial Logit model (MNL) (McFadden, 1974), by which choice probability is described as follows:

$$\Pr_{nit} = \frac{e^{\beta'x_{nit}}}{\sum_{j=1}^{J} e^{\beta'x_{njt}}} \tag{1}$$

where n is the individual, who assesses for t times j alternatives and chooses alternative i, β is a vector of estimated coefficients and x_{nit} are the attributes of alternative i of the t choice which compose the utility of individual n (Train, 2009).

3. Results

3.1. Descriptive statistics

Table 2 reports descriptive statistics for the two samples. Both are composed more of females (53% in France; 60% in Italy). The average age of French respondents is lower than Italians (23.3 vs 25.2), but it is worth noting that the average

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Figure 1. An example of choice task. Imagine you are at the supermarket to buy a bottle of wine to bring to a dinner with friends. You will see 4 groups of 3 bottles sold at the same price. We will show you both the front and the back of these bottles of wine. For each group, please choose the bottle of wine you prefer.

Table 2
Sample descriptive statistics (%).

Attributes	Levels	FRANCE (n=250)	ITALY (n=250)
Gender	Male	46	40
	Female	53	60
Average age (S.D.)	Years	23.3 (3.4)	25.2 (4.5)
Alcohol consumption frequency	Everyday	6	10
	Three days a week	53	19
	Only during the weekend	29	38
	Only during special occasions	11	33
Main venue for consumption of alcoholic beverages	At home	18	17
	At a friend's home	56	13
	Restaurant	4	15
	Pub	7	19
	Café/bar	13	18
	Disco/night clubs	2	17
Introduction to alcoholic beverages	With family	63	40
	With friends	37	60
Average age of introduction to alcohol beverages (S.D.)	Years	15.4 (3.1)	16.3 (1.8)
Alcohol consumption	During a meal	50	60
	Without a meal	50	40
Smoker	Yes	37	41
Going to discos and night clubs during the weekend	Yes	37	27
Going out with friends during the week to drink and dine	Yes	74	51
Avoiding drinking alcohol and drive	Yes	92	80

age of introduction to alcoholic beverages is lower in France than in Italy (15.4 vs 16.3). Moreover, the company with which they first experienced alcohol consumption differs: the majority of Italian respondents had the first experience with friends (60%), while for French respondents it was mainly within the family (63%).

Considering the other questions from the AUQ, Table 2 shows that while the Italian sample mainly consumes alcoholic beverages only during the week-end (38%) or on special occasions (33%), the majority of French respondents' state that they drink alcohol three days a week (53%). In Italy, consumption outside the home prevails, mostly at pubs (19%) and bars or discos (respectively 18% and 17%). Conversely, French respondents indicate their home (18%) or friends' home (56%) as the main places for consumption.

Concerning lifestyle variables, the Italian sample includes a higher number of smokers (41% vs 37%); while in the French sample individuals tend to go more often to discos during the weekend and to drink and dine with friends also during the week. In addition, over 90% of French respondents claim that they avoid driving after drinking, against 80% of Italian respondents.

Analysing the variables relative to young consumers' attention towards information on alcoholic beverage labels, Figure 2 shows that consumers in both countries claim to sporadically look at information on the front label while choosing an alcoholic beverage, and attention is even lower with back labels. Finally, significant differences emerge between the countries concerning warning labels (*p*<.001). French respondents seem to be more aware of warning labels than Italian ones, with only 28% of respondents declaring that they have never noticed them, against 38% of Italian

respondents. Obviously, this difference in exposure is due to different national regulations on warnings.

Italian and French consumers also differ in terms of warning recall, as reported in Fig. 3. Over 66% of Italians stated that they do not remember any warning on labels; whereas in France this share drops to 50%. These figures reveal the low visibility of the current warnings on labels and an overall low recall level.

Concerning the effectiveness of warnings, it is important to highlight that even if in Italy there is a low recall level, the behaviour or behavioural intention of more than a half of the sample is in some way influenced by warnings. Warnings drove them to consider the side-effects of alcohol intake (38% of respondents), they increase the intention to reduce consumption (9% of cases), or push them to actually reduce consumption (7% of cases) or to discuss the issues with friends (7% of cases). Conversely, in France, where visibility is higher, more than two thirds of respondents stated that warnings on labels had no effects on their consumption behaviour.

With reference to participants' concerns about the side-effects of alcohol consumption in both countries, consumers expressed greater concern about short-term effects than long term effects. In particular, participants are very concerned about car crash (68% in Italy and 57% in France); the lack of coordination and slow reflexes (32% in Italy and 28% in France), and alcohol intoxication (33% in Italy and 27% in France). On the contrary, in both countries participants stated that they are not at all or only slightly concerned about brain damage (29.5% in Italy and 29% in France), obesity (40% in Italy and 37% in France) and cardiovascular problems (23.5% in Italy and 19% in France).
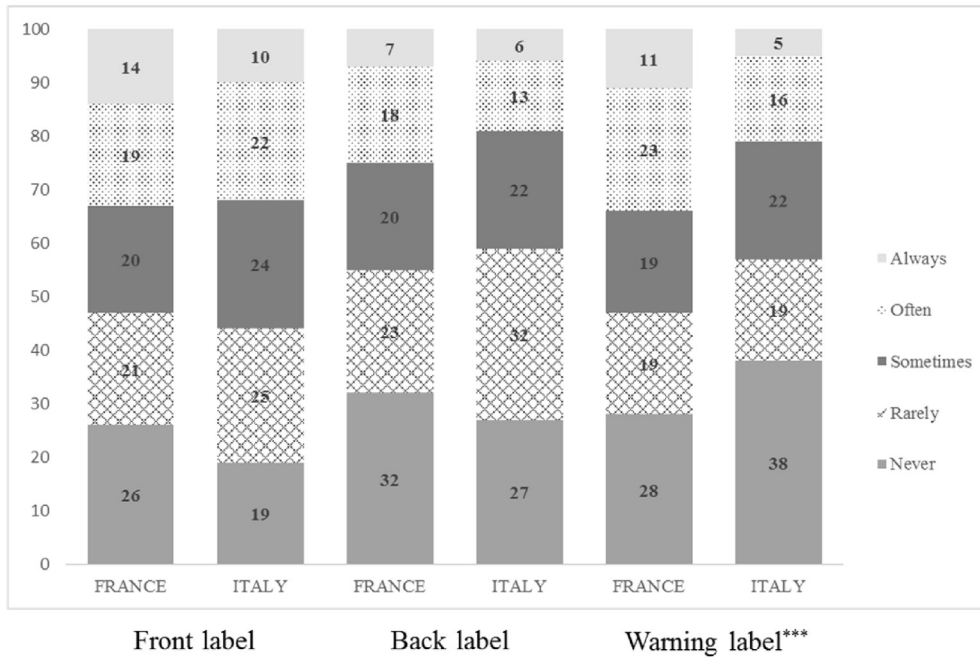
Figure 2. Attention towards information on alcoholic beverages label. *** Statistically significant according to the Chi-Square test with p-value < 0.001
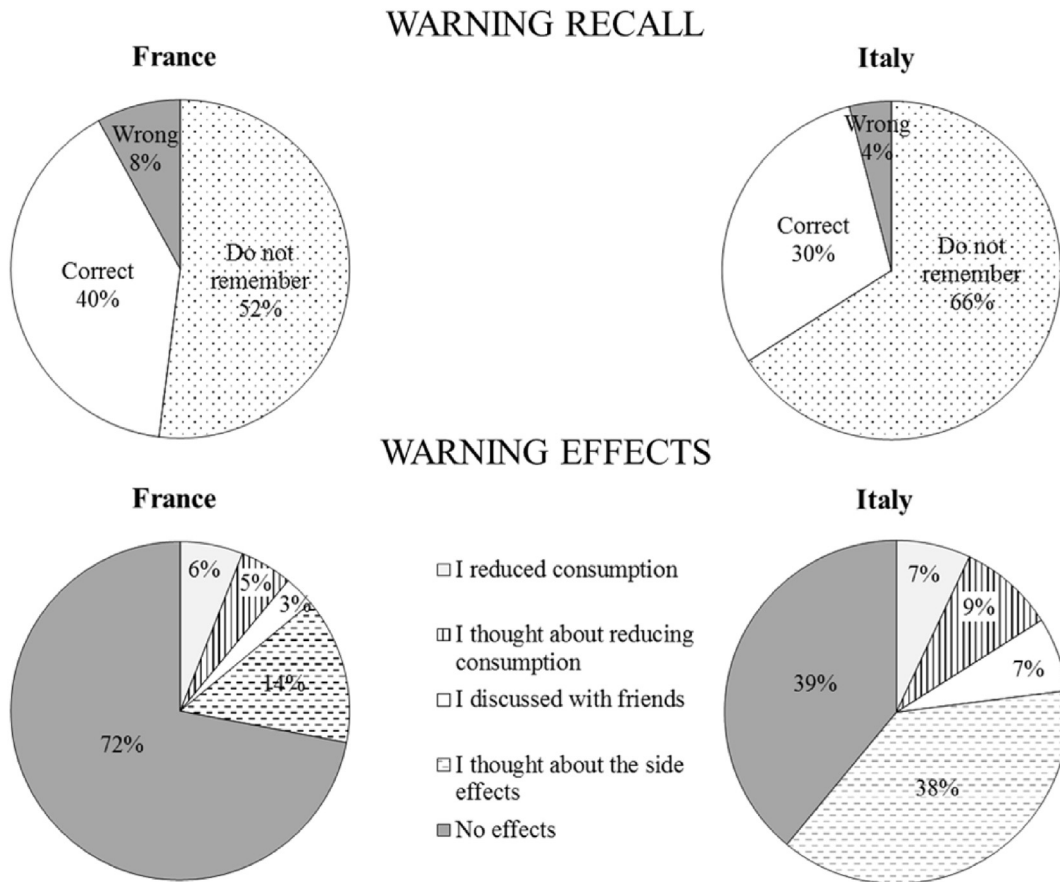

Figure 3. Warning label recall and effects

3.2. Results from the DCE

The choice experiment data were analysed using Latent-GOLD 5.1. Results reported in Table 3 show the estimated preferences of the full sample. Although the most important element driving choice is the warning logo (61.4%), utility is higher with the no logo option (p <.001), showing that consumers prefer to have any warning logo on a bottle of wine. Their utility is negatively influenced by the presence of the logo depicting the negative effects of alcohol on the brain.

The second attribute in order of importance is the position of the warning logo (19.3%) and consumers prefer to see the logo on the back-label, where it is less visible. With respect to the warning message (11.1% of total utility) coherently with the logo, they prefer to have no message at all on the label, and if a message is present and negatively framed it depresses their choice utility. In terms of warning logo size (6.3%), they prefer a small logo on the label. Alcohol by Volume is considered the least important attribute driving choice.

Table 4 shows the attribute and level importance for the two samples. Wine choice of both samples is strongly driven by logos, and not being warned by a logo at all when they have to choose a bottle of wine increases their choice utility. Italian consumers seem to be willing to accept the presence of a logo warning about the negative consequences of driving after drinking. Both samples derive negative utility from a logo that warns of the long-term negative effects of wine on the brain.

The choice of Italian respondents is secondly driven by the warning message, with positive utility for a neutrally framed message warning on the negative consequences of alcohol intake. The warning message is just the third attribute driving

Table 3
Attribute and level importance, full sample (n=500).

Attributes	Attribute importance	Parameters	SE	Wald	*p*-value
Logo size	6.3%				
Big		-0.071**	0.037	3.709	0.054
Small		0.071**	0.037		
Message	11.1%				
Neutrally framed		0.0447	0.057	5.833	0.054
Negatively framed		-0.1475***	0.062		
No message		0.1028*	0.062		
Logo position	19.3%				
Back label		0.2184***	0.040	29.345	0.000
Front label		-0.2184***	0.040		
Alcohol by Volume	1.9%				
11.5% vol.		-0.0182	0.040	0.241	0.890
12.5% vol.		0.024		0.054	
13.5% vol.		-0.0058	0.041		
Logo	61.4%				
Brain damage		-0.7112***	0.043	480.015	0.000
No driving		0.0347	0.036		
No logo		0.6765***	0.032		
Goodness of fit					
Number of observations	2,000				
Number of parameters	8				
Log likelihood	-1,904.15				
Rho-square	0.1406				

*sig 10%, **sig 5%, *** sig. 1%

young French respondents, who prefer to not have any message and draw negative utility when the message is negatively framed. The position of the logo has a higher level of importance for them, and positioning on the back label is preferred.

4. Discussion and implications

This research aimed to provide inputs to the ongoing debate in the EU on labelling and practical implications for private companies in defining wine labelling programs and implementing marketing strategies focused on enhancing the efficacy and readability of labels.

The results reveal that the general degree of attention towards the label of alcoholic beverages is low among Generation Y consumers and that the level of visibility of the warnings currently present on the bottles is low, as well as their effectiveness in changing consumption behaviour both in Italy and in France. This result is relevant, especially considering that two different warning regulation systems are applied. Contrary to our expectations, the difference in terms of recall among the two countries is not so marked, while French consumers consider warning labels as less effective than Italians.

At the same time, these results are in line with results from previous studies conducted in other countries Coomber et al. (2015). and Kersbergen and Field (2017) also found that the rate of recall of voluntarily introduced warning labels is very low for consumers from Australia and the UK respectively.

The results of the DCE show that Generation Y from both countries tend to prefer the "no logo option" while, between different logos, short-term effect warnings (e.g. *do not drink and drive*) are preferred to long-term effect warnings like the one concerning the potential risks of alcohol on the brain. Similar results were found by previous research (Annunziata et al., 2017 Jones and Gregory, 2010; Jones and Gregory, 2009), confirming that young consumers tend to prefer warning related to short-term consequences, probably because they perceive themselves to be not personally vulnerable to the long-term consequences of alcohol use, or do not perceive such consequences to be relevant to them. In addition, we highlight that greater use of the *drink and drive* warning should be considered in the light of greater sensitivity of public opinion towards the problem of alcohol-related car incidents. Therefore, in line with Glock and Krolak-Schwerdt (2013), a drink and drive warning should be considered not only as a health-related warning but also as a "social" warning, since alcohol-related car incidents represent a problem of public utility.

Our results also show that neutrally framed messages are preferred to those negatively framed. This is in contrast with previous studies that suggested that the negative framed warning has more emotional impact on consumers than the generic ones (Al-Hamdani & Smith, 2017; Al-Hamdani & Smith 2015). However, the results from Jarvis & Pettigrew (2013) show that a positively framed statement may actually increase the probability of purchasing products bearing this

Table 4
Attribute and level importance by Countries.

	Attribute importance	Italy		Attribute importance	France	
		Parameters	SE		Parameters	SE
Logo size	8.6%			4.3%		
Big		-0.061	0.047		-0.077	0.061
Small		0.061	0.047		0.077	0.061
Message	17.2%			11.5%		
Neutrally framed		0.125*	0.076		-0.060	0.090
Negatively framed		-0.117	0.079		-0.177*	0.104
No message		-0.008	0.079		0.236**	0.104
Logo position	9.5%			26.3%		
Back label		0.066	0.052		0.474***	0.067
Front label		-0.066	0.052		-0.474***	0.067
Alcohol by Volume	1.2%			1.9%		
11.5% vol.		-0.009	0.055		-0.018	0.062
12.5% vol.		0.008	0.074		0.043	0.085
13.5% vol.		0.002	0.054		-0.025	0.066
Logo	63.4%			56.0%		
Brain damage		-0.518***	0.054		-0.972***	0.074
No driving		0.145***	0.046		-0.072	0.058
No logo		0.372***	0.044		1.044***	0.051
Goodness of fit						
N. of observations	1,000			1,000		
N. of parameters	8			8		
Log likelihood	- 1,036.8			- 804.1		
Rho-square	0.057			0.281		

*sig 10%, **sig 5%, *** sig. 1%

statement. In addition, our results show that young consumers prefer a small logo posted on the back label confirming that the size and position of the warning are key attributes in influencing individual choices (Al-Hamdani & Smith, 2017; Kersbergen & Field, 2017).

However, our results also show some significant differences among preferences in the two analysed countries. While Italian consumers seem to be willing to accept the presence of a logo warning on the negative consequences of driving after drinking, French respondents negatively evaluate both messages (drinking and drive and brain damage). A further difference between the two countries is that in Italy consumers tend to attach more importance to the warning message than to the logo position, while for French consumers the logo position is the second attribute in terms of perceived utilities. These differences could derive from the fact that in France there is already a mandatory warning logo on the back labels (a pregnant woman) and consumers may consider the presence of multiple warning logos or of an additional message on the label excessive.

These findings support suggestions from Wilkinson and Room (2009) that underline the need to adopt a system of rotating and changing messages addressing the different side effects related to alcohol, without generating information overload. Nevertheless, the heterogeneity of consumer preferences indicates a need for a careful consideration of alcoholic beverage labelling regulations and the need for further investigation. According to Hassan & Shiu (2018) policy makers, as well as social marketers, must bear in mind the need to carefully segment and target their interventions.

5. Conclusion

This study highlights Generation Y consumers' preferences for health warnings on wine labels. Although it does not focus on the analysis of the effectiveness of health warnings in reducing abusive consumption behaviours, it is informed by evidence that this generation is more involved than others in engaging in non-healthy behaviours when consuming alcoholic beverages, with alcohol becoming the main cause of 25% of deaths among young men and one in every ten deaths of young women in modern society (European Parliament, 2015). The problem is well recognised at a European level, but the EU calls on member states to strengthen efforts to protect young people from alcohol-related harm, by leveraging on legislation on the age limit to consume alcoholic beverages and providing young people with information and education about an appropriate drinking culture. The study is not in the first instance an analysis of the efficacy of these labels, nor of which type(s) would have most impact on young drinkers; rather it concentrates on their likes and dislikes. Nevertheless, this information is invaluable for marketers as it gives an idea of what forms of labelling will gain positive or negative attitudinal responses.

One of the main suggestions that public institutions can draw from this study is that a policy aiming to inform young people about the potential negative consequences of alcohol intake and to prevent alcohol abuse should not just be focused on labelling, and this is true both in France, where a labelling system is already regulated, and in Italy, where there is no regulation on the subject yet. This result is in line with other studies, suggesting that warnings can be more effective in attracting

consumers' attention if included in posters, signs and adver-tisements, rather than just on labels (Argo and Main, 2004).

The limited attention paid to warnings on labels is a direct consequence of the excess of other information included on a wine label to attract and inform consumers. One option that producers can adopt to reduce this amount of information and avoid overloading consumers with too many stimuli on the label is to use new technologies, as they have been proved to be efficient in health promotion among younger generations (Bert et al., 2014). E-labels could be used to provide detailed health related information, as proposed by the "joint" self-regulatory proposal on nutrition labelling and ingredients listing presented on March 2018 by the European alcoholic beverages industry to the European Commission.

In conclusion, it is important to highlight that our findings are subject to several limitations intrinsically related to the type of questionnaire format (self-reported) which is prone to social-desirability bias. In addition, the sample is focused only on a specific target (Generation Y) and thus no information can be transferred to other consumer segments.

France and Italy are countries linked to wine by tradition and wine consumption is usually part of the family life, not linked to transgressive lifestyles more evident with other alcoholic beverages (Agnoli et al., 2011). This could be the cause of the negative impact of warning logos and messages attached on a bottle of wine. Other alcoholic beverages should be analysed to shed light on this aspect. Future research should focus on identifying the most effective designs to attract people's attention to warning labels using alternative methods (eye-tracking for instance). Given that cultural differences affect alcohol-related behaviours and that alcohol warning labels could have differential effects in diverse cultures, future research should be carried out in other EU countries.

Aknowledgemnt

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