

# Millennial consumers' wine consumption and purchasing habits and attitude towards wine innovation

Alessandra Castellini\*, Antonella Samoggia

*Department of Agricultural and Food Sciences, Alma Mater Studiorum – University of Bologna, Viale G. Fanin, 50, 40127 Bologna, Italy*

Received 26 February 2018; received in revised form 9 November 2018; accepted 14 November 2018

Available online 12 December 2018

## 1. Introduction

Wine consumption trends are undergoing significant changes that may result in opportunities for the wine industry. There is increasing attention given to wine consumption and the product receives wide media coverage (from traditional and social media) involving the general public, not just connoisseurs. A shift towards the use of technology to obtain new wine products is taking over the wine sector looking to produce higher-quality products and meet consumers' health and sustainability expectations. Non-EU and EU markets are increasingly offering wine with lower alcohol levels (Saliba et al., 2013) and thus calories, mainly aimed at satisfying women's palates and preferences. Consumers' interest in sustainability-oriented and health-oriented wine has been widely explored (Pomarici and Vecchio, 2014; Samoggia, 2016; Castellini et al., 2017; PwC, 2017) in order to gain a better understanding of consumers' perceptions of these new features in food and beverages. Wine product portions and packaging are evolving, expanding wine-by-the-glass options, bag-in-box, small six-pack bottled wines (0.187 l), wine in a bag, in cartons or in cans. New formats are of interest to big retailers, shops, bars, and restaurants but also for new consumer categories (in 2012 a famous diet program promoted a low-alcohol wine with only 8% alcohol, targeting people following a diet). Also, consumers' expectations are evolving. Consumers want and need to receive better information about wine, from the ingredients used to the wine-making process, about brand history, and sustainability (Castellini et al., 2014,

2017). This information enriches the wine label, which becomes a distinctive symbol with specific colours or designs. Other promising wine attributes could include innovative flavours (i.e. mocha or vanilla).

Millennials and their purchasing attitudes and patterns have become an important focus point for marketers and researchers in terms of their potential spending power, their ability to be trendsetters and their attitude to new products (Thach and Olsen, 2006; Radovanović et al., 2017). Many of these product innovations target young consumers, such as Millennials, as the food and beverage industries depend increasingly on Millennial consumers for expanding their market. Currently they represent a very interesting consumer category for wineries and retailers, not only in the New World, but also in other countries (Thach and Olsen, 2006; Thach, 2011; De Magistris et al., 2011; Mueller and Charters, 2011; Hristov and Kuhar, 2015; Radovanović et al., 2017; Mehta and Bhanja, 2018). According to Mueller and Charters (2011), the so-called Generation Y (after Generation X and before Generation Z, people born after 2000) is a group of people who are "self-assured and broad-minded" who believe that consumption style is a symbol of personal identity. Generation Y is not a homogeneous consumer segment and their consumption habits and socio-economic characteristics in any particular country are not necessarily similar or the same. Therefore, the findings of the many studies carried out on Millennials in the US support marketing strategies targeted towards indigenous consumers but are not directly transferable to other cultures (Mueller and Charters, 2011; Atkin and Thach, 2012). Furthermore, considering how Millennial consumers continuously evolve and modify their lifestyle habits, the European wine industry has not yet fully understood how to approach them effectively. The aim of the present study is to explore Italian Millennials' wine consumption and purchasing habits

\*Corresponding author. Fax: +39 051 2096105.

E-mail addresses: [alessandra.castellini@unibo.it](mailto:alessandra.castellini@unibo.it) (A. Castellini), [antonella.samoggia@unibo.it](mailto:antonella.samoggia@unibo.it) (A. Samoggia).

Peer review under responsibility of UniCeSV, University of Florence.

and their reluctance or readiness to try and purchase unfamiliar or new wines or wine styles. This segment of consumers has not yet been sufficiently analyzed and this paper could provide interesting information about Millennials, not only for researchers, but also for wine producers.

## 2. Background

In the world the area under vines is increasing; it amounted to over 7.5 million hectares in 2015 because both China's and New Zealand's vineyard surface area is growing. However, EU vineyards continued to decrease slightly (OIV, 2016). By now, Italy is the country which has the fourth largest vineyard surface area in the world: in 2017 it amounted to 652,217 ha, showing a slightly increase over the previous two years (with an average annual growth rate of +1.3% in 2015–16 and +1% from 2016 to 2017) compared to a loss of about 50,000 ha over the previous decade (ISMEA, 2018). 77% of the area in question is under a label of origin (62% Protected Designation of Origin, 15% Protected Geographical Indication). The sector is fragmented into a large number of farms: 55% of the total units possess less than 3 ha each (Sellers and Alampi Sottini, 2016). In 2017 global wine production fell to 250 million hectolitres (hl), recording a historical low in volume caused by adverse weather conditions. Italy has maintained top position (42.5 million hl, -17% compared to 2016) followed by France (36.7 million hl, -19%), Spain (about 32 million hl, -20%) and the United States (23.3 million hl, -1%) (OIV, 2018). Since 1980, some traditional European countries such as France, Italy, Spain and Portugal monopolised the wine industry in terms of production, consumption and export (Barrena and Sanchez, 2012). It is worth noting that in 2015 Italian wine production went over the 50 million hl mark for the first time, after a long period of decreasing production. In terms of Italian regions, in 2015, Veneto was the most important wine producer with more than 10.5 million hectolitres, followed by Emilia-Romagna, Apulia and Sicily ([www.uiv.it](http://www.uiv.it)). In Italy the number of wineries/wine processing companies is significant and has remained steady, at under 50,000 units (ISMEA, 2018). As far as global wine consumption is concerned, in 2017 it was estimated at more than 243 million hl, with a slight increase compared to 2016, but it must be noted that it has remained quite steady since 2008. Wine consumption has increased mainly outside the traditional EU consumer and producer countries: the US has claimed top position since 2011, with domestic demand estimated at 32.6 million hl, and with Millennial consumers playing an important part in this trend. China shows a positive variation of +3.5% compared to 2016, with an increasing interest for non-traditional products (OIV, 2018; ISMEA, 2018). After a long period of consumption decrease, France reversed this trend, while Spain, Italy and Germany showed a moderate increase. Nevertheless the per capita consumption in Italy is dramatically lower than in the past (in 2015 it amounted to 36.2 litres per capita while in 1977 it was 93.5 l; Sellers and Alampi-Sottini, 2016). This decrease has interested mostly the daily wine consumer (in 2017, 19% of the population; ISTAT, 2017) while the number

of non-daily wine consumers (28% of the population is increasing, ISTAT, 2017). Regarding the relationship between age and wine consumption, it emerges that the latter tends to increase among older people over 65, among young people between 18–34 and in the age-group between 45–54. Conversely, wine consumption decreases or remains stable among people between 35–44 and between 55–64 years old ([www.uiv.it](http://www.uiv.it)). So Millennials today could represent a new attractive target for wineries. The world wine trade increased dramatically, with a growth rate of about +66% in volume and +150% in value from 2001 to 2017 (OIV, 2018). The share of bottled still wine sales is estimated to have increased from 54% to 57% between 2016 and 2017; sparkling wine maintains its great attraction on the market while the volume of bulk wine exports fell sharply in the same period. Italy is one of the biggest players in the wine trade, being the second exporter after France (calculated in value) and after Spain (in volume), registering stable positive values in its trade balance. In recent years, Italian wine exports increase mainly for sparkling products and towards extra-EU countries. In fact, an important destination for Italian wine is the USA, followed by Germany and the UK. The increasing export flow could represent an economically viable counter-weight to the Italian decrease in wine consumption with the growing demand in other countries such as the US, China and Poland, being so great. The most popular Italian wines are high quality and in recent years sparkling wine (most of all Prosecco) and rosé wine have achieved great success. Also, this demand is strongly influenced by the new type of consumer (younger and better-informed than in the past; ISMEA, 2018).

### 2.1. Millennials: who are they?

There are many nicknames for Millennials such as Generation Y, Generation Yers, Nexters, Nexun generation, Echo Boomers. The age-range of this cohort is still undefined. According to certain literature (Thach and Olsen, 2006; Lancaster and Stillman, 2002; De Magistris et al., 2011), Millennials are those born between 1977 and 2000. Other sources assign this generation to the period 1983 to 2004 (Atkin and Thach, 2012; Gillespie, 2005; Gillespie, 2010; Tapscott, 2009; Junco and Mastrodicasa, 2007; Howe and Strauss, 2000). The differences are due to the focus of the research, especially for wine and alcohol consumption generally, because the legal drinking and/or buying age for alcoholic beverages is 18 years old in most countries or 21 in others like the US. Wine producers and retailers are increasingly interested in the Millennials as consumers and various research studies focus on them as a new target group. Their consumption behaviour is geographically differentiated (De Magistris et al., 2011; Mueller and Charters, 2011), mainly between “New World” and “Old World” markets. The latter group, people living in European countries where viticulture is traditional, is more influenced by attributes such as the wine region and family consumption habits than the US consumers (Mueller and Charters, 2011). Howe and Strauss (2000), claimed that there are social and historical conditions in which

Millennials grew up that have a strong influence on their behaviour. In particular, these Authors pointed out that the influence could be attributed to having both parents working, living in a wealthy society, exposure to globalisation, and familiar with fast-changing, friendly and easily-accessible technological innovations.

US Millennials' consumption habits have been widely surveyed (more than their European coetaneous) (Thach and Olsen, 2006; Atkin and Thach, 2012; Mueller and Charters, 2011; De Magistris et al., 2011; Chang et al., 2016; McMillan, 2018), resulting in a fairly precise profile of them as wine drinkers. These consumers, mainly those over 30, have high purchasing power and capability to influence family consumption choices (Thach and Olsen, 2006; McMillan, 2018). US Millennials are technologically savvy, participating in various social networks regarding wine, and looking for information on the internet. They pay attention to brands, have developed social awareness, and appreciate value quality products. These people as a group are important wine drinkers in terms of volume. According to market surveys, they tend to prefer red wine, but not too tannic, because it is fruity and smooth, and goes well with most food. They also appreciate white wine, mainly if the wine is fruity and/or sweet. These young adults have also varied tastes: the most popular choices are Malbec, Moscato, Pinot noir and Sauvignon Blanc ([www.winemarketcouncil.com](http://www.winemarketcouncil.com)). They enjoy trying new wines from different countries (e.g. Australia, Italy), in various types of packaging (e.g. 3-liter boxed wine, TetraPack, 187-ml bottles), and new purchasing convenience options (i.e. ordering online from a local retailer offering immediate delivery ([www.marketwatchmag.com](http://www.marketwatchmag.com))). Packaging and labels, when innovative and well-designed, are important elements in the US Millennials' wine purchasing behaviour but most of all they choose a wine because of its brand reputation and fame (Wine Monitor Nomisma, 2018). Wine is perceived as a fun and relaxing beverage, with an air of sophistication and positive social power, able to create a good ambience with family or friends. Nevertheless, these consumers declare that they are attracted by low-prices and promotional offers, mainly the youngest segment, though price is not considered as important as quality ([www.winemarketcouncil.com](http://www.winemarketcouncil.com)). Given these consideration, US wineries are increasingly targeting Millennials: in fact, this generation represents 42% of total expenditure on wine purchase (Wine Monitor Nomisma, 2018) and they are on the way to surpassing the Generation Xers around 2026 to become the top fine-wine-consuming generation (McMillan, 2018).

Young Indian consumers are an interesting target for global wine producers (Wine market Council, 2016). While in the past, in India, wine was considered as "a social taboo" (Mehta and Bhanja, 2018), today it is appreciated more and more by young drinkers. Indian Millennials consume wine; they like it and show a positive attitude towards different types of product. They are open to change and new experiences; wine consumption is acquiring an almost symbolic value for them (Mehta and Bhanja, 2018). Considering that India has the largest share of population under

30, it is clear that wine marketers cannot disregard this market.

Young European consumers approach wine differently. In France, for example, wine consumption has decreased by more than 50% since 1980 and the vast majority of non-consumers, which includes young adults, prefer different beverages, such as beer or sodas (Thach and d'Hauterville, 2008). French Millennials acknowledge that wine is embedded in French culture, but wine is perceived as old-fashioned and not exciting for young drinkers. Furthermore, French Millennials think that purchasing wine can be an intricate and intimidating experience due to the high number of brands and wineries ("Which one should I buy?" and "Which vintage?"), and wine labels are often not clear or helpful. On the other hand, quality and price are the most important attributes in wine purchasing for Serbian Millennials (Radovanović et al., 2017). In this country, age seems to have a big influence on buying behaviour. The standard size of wine bottles does not meet the evolving preferences of young consumers, as they tend to favour smaller bottles, especially in bars or restaurants, and with clearer and more colourful labels. In the UK, there is increasing interest in "novelty" wines, such as rosé wine. To take advantage of this trend English retailers have created specialised commercial areas in food outlets, with distinct pink sections for rosé wine, displaying pink signs and posters ([www.beveragedaily.com](http://www.beveragedaily.com)). Rosé wine producers target Millennial consumers, mainly female, by using social media and by creating dedicated hashtags (RoséAllDay, YesWay, Rosé). Market surveys regarding Millennials' attitudes towards innovative wine attributes (mainly in US and UK) reveal that they prefer alternative package formats and materials, like bag-in-box packaging, plastic bottles, plastic cups and goblets, and aseptic cartons. New types of closures, such as screw caps or plastic corks, are appreciated by these consumers. New packaging, like single-serving wine bottles or wine by the glass, allow consumers to buy and consume wine in unusual places, where usually beer is the common beverage (stadiums, concert halls, and theme parks) ([www.packagingdigest.com](http://www.packagingdigest.com)).

In Italy, Millennials account for about 11 million people (Eurispes, 2017), equivalent to 18% of the population. By 2020 they will represent 25% of the population (which is the European average). They seem to be a globalised generation with international friendships, without geographical barriers, multilingual and appearing to accept cultural diversity. Nevertheless, they maintain closer links with family and parents (Bigi et al., 2007). Until just a few years ago Italian Millennials' food consumption habits and perceptions did not receive great attention from marketers and researchers. Currently, Millennials are an increasingly promising target group, which deserves to be better understood. An interesting portrayal of the category was depicted by Fabris (Fabris, 2013; Pomarici and Vecchio, 2014). He emphasises that Italian Millennials aspire to hedonism, are not politically involved, are cosmopolitan, and have a "hypertrophic" private life. According to recent studies (Eurispes, 2017), they are heavy users of social networks, mainly using their smartphones, and spend a lot of time watching television (more than 4 hours per day). In

2016 a survey about online video exposure stated that 70% of surveyed Millennials watched videos more than 6 hours per week and 16% preferred those about food ([www.buzzmyvideos.com](http://www.buzzmyvideos.com)). In Italy, millennial wine drinkers represent 11% of the total volume of consumption (Wine Monitor Nomisma, 2018); they perceive wine as a social drink and prefer to drink it together with friends or family, at home or at enoteche (wine shops) (PwC, 2017). Traditional social media, like Facebook and Twitter, are commonly used to seek information and advice for their purchases. This tendency is connected to their low brand loyalty, and their interest in products that are sustainability-oriented and with attractive promotional image and positioning. Pomarici and Vecchio, 2014, explored Italian Millennials' attitude towards sustainable wine. They confirmed Italian Millennials' environmental and social concerns (i.e. buying ethical labelled or carbon neutral wines), but also their limited knowledge about these issues. These authors concluded that in Italy marketers should improve the wine label information with regard to sustainability and ethical aspects in order to target Millennials. In comparison with their US coetaneous, they pay more attention to the origin of wine rather than price and "aesthetic attributes" like the shape of the bottle or the colour of the label (Wine Monitor Nomisma, 2018).

In conclusion, current literature shows that Millennials are among the generations with the most varied tastes in wine drinking history; they lack brand loyalty, like sexy labels, look for value, and want to have an enjoyable experience. This is the consumer segment that is most on the lookout for new food and beverages and is favourably inclined towards unfamiliar wines, new wines or new wine styles. Millennials require change and innovation from the wine industry, with expectations of greater variety and uniqueness. They do not aim at consuming high quantities, but rather at having a multisensorial experience, and they value personal appearance, and wellbeing.

## 2.2. Theoretical foundation of the Neophobia/Neophilia concept

One of the goals of this paper is to assess the Italian Millennials' reluctance or willingness to try new wine products, in other words their Wine Neophobia or Neophilia (Ristic et al., 2016). These concepts were originally developed for food, considering as Neophobia the reluctance to eat or avoid, new types of food (Pliner and Hobden, 1992). In fact, while many consumers appreciate eating and tasting new products, other people are reluctant or show a strong aversion to them (Ritchey et al., 2003); this is the basic foundation of Food Neophobia or Neophilia. Pliner and Hobden (1992) took into consideration the so-called "omnivore dilemma" developed by Rozin (1977) stating that a human being, like any other omnivore animal, must both approach and avoid a new food. According to these Authors there is a continuum from Neophobia to Neophilia along which different individuals can be placed in line with their particular personality. The placement is influenced by many factors such as age, social/

family influences, and personal experience. In order to measure the level of reluctant/positive feeling towards a new food and define the different behavioural groups, a Food Neophobia Scale (FNS) was developed. It includes a set of 10 worded-items measured on a 7-point scale (from strongly disagree to strongly agree, giving a maximum score of 70 points) assessing the preference for familiar and well-known product (Neophobia) or the willingness to try new experiences (Neophilia) (Pliner and Hobden, 1992). These items are worded in positive or negative directions and subsequently evaluated. Familiarity with situations, people and also food are one of the factors related to Food Neophobia, such as the times-eaten rating. Demographic factors (gender, household income, age) can also be considered but their correlation with individual Neophobia or Neophilia is not always confirmed (Choe and Cho, 2011).

The Neophobia concept is also strictly related with that of food disgust. In fact, people who tend to be easily disgusted by certain food-related offensive stimuli tend to be more reluctant to eat unfamiliar food and food from other cultures. Food disgust sensitivity is one influential factor in Food Neophobia (Hartmann and Siegrist, 2018). Using the FNS model can also support managerial decisions, suggesting suitable strategies according to the target consumer's level of reluctance or favour (Choe and Cho, 2011).

Also related to the Food Neophobia Scale is the Food Technology Neophobia Scale (FTNS), a suitable tool for surveying the consumer's attitude towards food produced using new technologies like pasteurisation, bioactive, fortification, selective breeding, triploidy, genetic modification and nanotechnology (Evans et al., 2010).

Starting from the Food Neophobia Scale and making some changes, Ristic et al. developed in 2015 the Wine Neophobia Scale (WNS), used in this work.

## 3. Materials and Methods

### 3.1. Data gathering

This paper is aimed at exploring Italian Millennial consumers' approach to wine purchasing and consumption habits and Wine Neophobia. In Italy a legal drinking age does not exist, but selling and/or serving alcoholic beverages to those younger than 18 years old is prohibited by the law. Thus, the survey focused only on Millennials born between 1982 and 1998 that is between  $\leq 35$  and  $\geq 18$  years old in 2017 on the day of the interview. The study applies a two-stage analysis: a qualitative followed by a quantitative survey.

#### 3.1.1. First stage

The qualitative analysis included two exploratory focus groups with the object of obtaining the most relevant insights and consolidating topics and issues to investigate in the subsequent quantitative research stage. Participants in the focus groups were recruited through chain-referral sampling, with interviewees recruiting other interviewees from among their acquaintances. The focus groups had about ten

Millennials each and were carried out in Bologna. Interviewees live in Emilia-Romagna region, and originally come from the North and South of Italy. The authors moderated the focus groups with the assistance of three observers who then carried out the interviews in the second phase. The focus group results, together with the literature review findings, were mainly used to determine the key consumption and purchasing habits to include in the quantitative investigation. During the focus group meetings the topics of discussion were Italian Millennials' wine consumption habits, preferences, attitudes, and perceptions. The focus groups were based on an unstructured discussion among participants to elicit feedback on wine products purchased and consumed, frequency and occasions of consumption, and purchasing channels.

### 3.1.2. Second stage

In the quantitative survey stage, a direct face-to-face survey was carried out, with data collected using specific questionnaires containing closed-ended questions. Interviewers carried out 404 interviews with Italian Millennial wine consumers. After data cleaning, the convenience sample consisted of only 393 questionnaires in data elaboration. The interviews took place in different locations: retail outlets, wine shops, bars, restaurants, malls, city centres, and wine festivals. Interviews were carried out in different parts of Italy to explore the various geographical habits and attitudes of consumers. Almost half of the respondents come from North-eastern Italy (49%), one third from North-western Italy (28%), and the rest is distributed between the Centre (13%) and the South of Italy (10%).

The questionnaire started with a filter question to screen interviewees so as to collect responses only from wine consumers (i.e. those who drink wine at least once a year) and by Millennials. The structure of the questionnaire included a first section on wine consumption habits (frequency of consumption, drinking occasions, i.e. "I drink wine during special events") and wine purchasing habits (reasons to buy wine, places, influencing elements regarding wine selection, and mean expenditure on wine). The respondents were asked to rate each question using a 5-point Likert scale of agreement/disagreement (1: totally disagree; 5: totally agree). The second section applied the recently validated Wine Neophobia Scale (Ristic et al., 2016; Atkin and Thach, 2012), a scale aimed at measuring the wine consumers' reluctance or readiness to purchase and try unfamiliar or new wines or wine styles (Table 1). The application of this scale leads to the identification of Wine Neophobics. These are consumers with a lower acceptability for unfamiliar wine products and high level of dislike for, and avoidance of, new types of wine. Equally, Wine Neophilics show positive and pleasurable approaches to unfamiliar and new types of wine. In the present research, the WNS was adopted to assess the respondents' wine neophilia. The purpose was to explore Millennials' attitude towards experiencing new or unfamiliar wine, as well as assessing the consumers' level of sensation-seeking, as a proxy for willingness to try new wine attributes and take risks. The WNS is based on positive/negative statements and the respondents confirm the level of agreement/disagreement on a 9-point

**Table 1**

The Wine Neophobia Scale Items. Source: Ristic et al. (2016). Towards development of a Wine Neophobia Scale (WNS): Measuring consumer wine neophobia using an adaptation of The Food Neophobia Scale (FNS). Food quality and preference 49 (2016) 161–167

N.	Item	Positive/Negative
1	I like going to place serving wines from different countries	+
2	I will drink almost any wine	+
3	I am afraid to drink wines I have never had before	-
4	At social gatherings, I will try a new wine	+
5	I like wines from different countries	+
6	If I do not know what wine it is, I won't try it	-
7	I do not trust new wines	-
8	I am constantly trying new and different wines	+

Likert scale (1 = totally disagree; 9 = totally agree). These statements are coded as positive or negative considering the consumer's attitude towards WN. Since items 3, 6 and 7 identify reluctant attitudes, their scores were inputted as a reverse-scale in the calculation of the WNS final score.

The *last section* gathers information on the socio-demographic profiles of the respondents. The questionnaire was tested in trial interviews and the items identified as unclear or not important were revised. Data was collected using smartphones and tablets, or in the traditional, on-paper, way. Data was collected with the support of the Qualtrics Internet survey program.

### 3.2. Data elaboration

Data elaboration followed three phases. First, data elaboration aimed at exploring consumers' level of Wine Neophilia. Data about neophilic/neophobic behaviour, collected through the WNS, were processed by summing the values of each item on the scale per consumer. Then, consumers were divided into quartiles so as to identify the WNS cut-out points for the group of Millennials which was most wine neophilic. Neophilic consumers were in the highest-scoring quarter while neophobic consumers figured in the lowest scoring quarter. Division into quartiles is widely applied in the relevant academic literature and it is also used in the original paper (Ristic et al., 2016; Johnson and Bastian 2007; Quester and Smart 1998; King et al., 2012).

Second, the research aimed at identifying existing latent factors in Millennials' wine consumption and purchasing behaviours and preferences, with the support of an Exploratory Factor Analysis (EFA). It applied the principal components methods (PCA) and the Varimax rotation. All the initial 21 items on wine consumption and purchasing habits had factor loadings above .43 and were grouped into 6 components. Given the limited number of missing values in the variables included in the factor analysis, and in order to strengthen the elaboration results, the listwise method was adopted. The Kaiser–Meyer–Olkin measure of sampling adequacy and Bartlett's test of sphericity were calculated to assess the appropriateness of the data for factor analysis. The Kaiser–Meyer–Olkin index was 0.739. Bartlett's test of sphericity was

highly significant (.000). These results indicated that the data was appropriate for use in the analysis. The choice of factors was made on the basis of the eigenvalue criterion being higher than 1, as well as considering the cumulated variance explained by the factors taken together. Factor-based scores were calculated using the Bartlett score, as a refined method (Tabachnick and Fidell, 1989; DiStefano et al., 2009; Estabrook and Neal, 2013), so as to maximize validity with factor scores correlating highly with the factor, and to obtain unbiased estimates of the true factor score (Hershberger, 2005). These were saved as new variables. In the last phase, the factor-based scores were used in the multivariate linear regression (enter method) carried out to explore the relationship between Millennials' level of neophilia/neophobia and their wine consumption and purchasing habits. Results on Millennials' WNS scores were analysed comparing factors' mean values of Neophilic and Neophobic Millennials, with Anova analysis. Finally WNS scores were cross-analysed with socio-economic characteristics and further wine consumption habits, and tested using chi-square and Anova analysis. Data elaboration was carried out with the support of SPSS (vers. 21).

### 3.3. Sample

Out of the 393 respondents, about 75% consisted of young Italian Millennials and consumers with a high level of education (Table 2). The sample includes a higher number of men than women. The low-income level of respondents

**Table 2**  
Sample characteristics. Source: our elaboration

GENDER	%
Women	36.7
Men	63.3
Total	100.0
LEVEL OF EDUCATION	
No academic degree	59.8
With academic degree	34.4
Master, PhD...	5.9
Total	100.0
AGE	
18–21 year-old	36.6
22–25 year-old	39.7
26–34 year-old	23.7
Total	100.0
LEVEL OF INCOME	
Less than 500 euro	50.0
501–1400 euro	37.5
1401–2800 euro	10.9
2801–4200 euro	1.2
More than 4200 euro	0.4
Total <sup>a</sup>	100.0

<sup>a</sup>34.9% did not respond to this question ("I do not know" or "I do not want to respond").

(50% < 500 €/month) is in line with the student status of a large number of the respondents.

## 4. Results and discussion

### 4.1. Wine Neophobia Scale

The possible maximum score of the WNS is 72. In this survey, the cut-point for the lowest scoring quartile is 43. The Italian Millennials interviewed scoring 43 or lower are considered neophobic, meaning they have a lower acceptability for unfamiliar wine and are reluctant to try new types of wines or novel wines (Table 3). Neophilic Millennials scored 55 or higher, which is the cut-point value for the highest quartile. This is due to the objective of the paper, which is aimed at looking for Wine Neophilia in Millennial consumers. The Millennials' average WNS score is almost 50, and it shows that there is a fairly high positive propensity towards wine among the surveyed consumers (the average WNS score per item is 6.25). Neophilic Millennials have an average WNS score per item equal to 7; this shows that they have a rather high WN. Neophilic consumers show a positive and pleasurable approach to new wine or wine styles. The respondents who scored between 44 and 55 were identified as neither neophilic nor neophobic and, therefore, they were labelled as "NOTO" (neither one, nor the other) (Ristic et al., 2016).

### 4.2. EFA on wine consumption and purchasing habits

Italian Millennials' wine consumption and purchasing habits converge into six main components. These are the factors emerging from the EFA carried out and they summarize the original 21 measurement items (Table 4a). Every factor loading is consistent with the other variables loading of that factor. The resulting six factors explain about 58% of the total variance. The six factors were labelled according to wine consumption and purchasing habits associated with the statements.

1. Factor 1 gathers the items under the statement that wine is perceived as "special drinking". Wine is bought as a gift.

**Table 3**  
WNS results. Source: our elaboration

Mean	49.55
Std. Deviation	9.901
Minimum WNS score	18
Maximum WNS score	72
<b>WNS score of interviewees</b>	
Percentiles	25
	18–43 – Neophobic Millennials
	44–55 – NOTO (Neither one, nor the other)
	75
	56–72 – Neophilic Millennials

\*Using the pairwise procedure to discard some data.

Table 4a  
EFA on Millennials' wine consumption and purchasing habits.

	1 Special drink	2 Convivial drink	3 Habitual and aware drink	4 Easy purchase	5 Recommended purchase	6 Direct online purchase
I usually buy wine for my own consumption		-.643				
I usually buy wine as a gift	.590					
I usually buy wine when I have guests		.696				
I enjoy buying wine		-.497				
I like to drink wine		-.433				
I buy wine in supermarket				.766		
I buy wine at the discount				.625		
I buy wine at wine shops/ <i>enoteche</i>	.740					
I buy wine directly at the winery				-.420		
I buy wine online (producer website, web stores, social platforms...)						.793
I read the information on the label when I buy wine			.657			
I think that the label supplies important information about wine			.683			
I purchase exclusively local/regional/Italian wine			.580			
When I purchase wine, I choose on my own					-.624	
When I purchase wine, I am influenced by my family members					.693	
When I purchase wine, I am influenced by friends					.465	
When I purchase wine, I am influenced by the wine seller/retailer	.763					
When I purchase wine, I am influenced by social media, websites, apps,...						.620
I drink wine when I have meals			.519			
I drink wine with other people		.712				
I drink wine during special events		.765				
Variance explained (%)	18.4	11.1	9.4	7.2	5.7	5.4

Source: our elaboration.

- Millennials prefer to purchase it in wine shops and sellers should be connoisseurs who influence the purchasing decisions. This latent factor underlines the distinctiveness of wine as a special drink.
- Factor 2 states that wine is a drink for social occasions, “convivial drinking”, to be shared with other people or during events. It is not a solitary pleasure, but a social beverage. In this connection, wine is usually not purchased for personal consumption, and there is more pleasure in experiencing it with others rather than buying and drinking it alone.
  - Factor 3 groups the items as “knowledgeable and routine wine consumption and purchasing habits”. Wine is consumed during meals, and local or domestic products are preferred. Wine information is appreciated and read. This factor shows a purchasing behaviour based on a good level of wine awareness, aimed at familiar and well-known wines. Therefore, wine is approached in a “habitual and conscious drinking” manner.
  - Factor 4 gathers the items as wine purchasing habits that approach wine as an “easy purchasing” beverage, to be usually bought in supermarkets and/or discount stores, and not at wineries or specialty wine shops.
  - Factor 5 reveals Italian Millennials' lack self-confidence in wine purchasing. Wine is bought with the support of other people (such as wine connoisseurs), family members, and friends. The statement “I prefer to decide on my own” is consistently and negatively correlated with the other items. This factor acknowledges wine purchasing habits that could be called “recommended purchasing”.
  - Factor 6 includes the items that show appreciation for a “direct online purchase” approach to wine. Wine is approached through social media and internet sources, confirming the fact that some Millennials are shifting towards these new sales channels.
- Average values of score-based factors (Table 4b) show that Millennials are more attracted to wine in convivial situations and tend to look for information on the labels. Factors 2 and 3, scoring the highest mean values, and reveal a two-sided approach of this new generation towards wine: they grow up within the influence of Italian wine's traditional heritage, but at the same time they are fascinated by a new image of wine as a special drink. They make little use of internet and social media as far as wine is concerned. Overall, wine seems not to have a significant appeal for younger Italian generations, apart from

**Table 4b**

Values of Neophilic and Neophobic Millennials' wine purchasing and consumption habits.

		1 Special drink	2 Convivial drink	3 Habitual and aware drink	4 Easy purchase	5 Recommended purchase	6 Direct online purchase
Neophobic	Mean	2.56	2.91	3.30	2.33	2.72	1.47
	Std. Deviation	.98	.54	.82	.70	.78	.70
Neophilic	Mean	3.16	3.26	3.23	2.76	3.11	1.69
	Std. Deviation	.98	.48	.71	.66	.68	.99
Total	Mean	2.85	3.08	3.27	2.54	2.91	1.57
	Std. Deviation	1.02	.54	.77	.71	.76	.86
Anova	F	19.35	24.10	.39	20.55	14.80	3.31
	Sig.	.00***	.00***	.53	.00***	.00***	.07*

Notes: \*, \*\*, \*\*\* Significant at  $p < 0.10$ ;  $p < 0.05$ ;  $p < 0.01$ .

Source: our elaboration.

**Table 5**

Relationship between Millennials' wine habits and Wine Neophilia.

	B	Std. Error	Beta	t	Sig.	
Special drink	-2.675	.442	-.270	-6.049	.000	***
Convivial drink	2.878	.443	.290	6.495	.000	***
Habitual and aware drink	-.209	.442	-.021	-.474	.636	
Easy purchase	3.043	.443	.307	6.866	.000	***
Recommended purchase	-.785	.444	-.079	-1.771	.077	*
Direct online purchase	1.197	.443	.121	2.705	.007	***
(Constant)	49.384	.443		111.554	.000	

Dependent Variable: Wine Neophilia scores

Notes: \*, \*\*, \*\*\* Significant at  $p < 0.10$ ;  $p < 0.05$ ;  $p < 0.01$ .

on social occasions. There are differences between neophilic and neophobic Millennials. The first group strongly believes, compared to the second group, that wine is a special (3.16) and convivial (3.26) drink, which is easy to purchase (2.76), and seek recommendation when purchasing wine (3.11). These differences are confirmed by the Anova results.

#### 4.3. Wine Neophilia and wine consumption and purchasing habits

Results show that some of the Italian Millennials' identified wine consumption and purchasing habits are related to Wine Neophilia (WN) (highly significant p-values) (Table 5). In particular, there is a statistically significant relationship between experiencing wine as a special drink, convivial drink, easy to purchase, recommended and online purchase. The more Italian Millennials perceive wine as a social and accessible drink, and purchase it on line, the more they are wine neophilic.

In addition to the significance of this relationship, there is an interesting result regarding the effect of Neophilia on the various factors. More precisely, the more Italian Millennials are wine neophilic, the more they think it is easy to purchase it and the more they drink it with others (respectively with B equal to 3.043 and 2.878). There is, overall, an optimistic

approach towards novelties, that may be worth sharing with others. Finally, the more they think it is a special drink, or aim for advice when purchasing wine, the less wine neophilic they are. This supports that a positive inclination towards new and unfamiliar wine may generate some hesitations. Moreover, Millennials' habits of drinking wine consistently, such as during meals, and reading labels to obtain information, do not impact on the level of WN. A regular wine consumption leads to a less curious and open approach to wine.

The research also analysed whether Millennials' WN differs in relation to socio-economic characteristics and wine consumption habits (Table 6). Results show that the most significant elements are frequency of wine drinking, perceived wine competence and the level of education. In particular, there is a higher number of Millennials who are wine neophilic when they think they have a high competence in wine knowledge (40.8%), drink at least than once a week (29.2%) and have higher level of education (30.4%), compared to neophobic Millennials. These results are confirmed by the average WNS value for each group. In particular, the WNS average value is higher for Millennials with high perceived wine competence (54.76) even though the neophilic is still limited.

Overall, research results show that Millennials are an interesting and important target for wine-producers. Findings highlight that Millennials' openness towards unfamiliar or new wines or wine styles is high, but lacks concreteness. On one hand, Italian Millennials are wine neophilic, are curious towards novelties, and are most likely to appreciate unfamiliar or new wine experiences per se. On the other hand, Millennials' attitude towards innovative purchasing and consumption practices concerning wine is timidly favourable. They are hesitant to express their agreement when directly elicited about new wine purchasing and consumption practices. Results confirm previous literature's considerations regarding the importance Millennials bestow on wine as an instrument for socialization, on advice from members of their friend and family network, using labels as source of information, and using specific market channels, where they can find distinctive

**Table 6**  
Socio-economic characteristics and further wine drinking habits of neophobic and neophilic Millennials.

		Neo-Phobic %	Neo-Philic %	NOTO %	Total %	Asymp. Sig. (2-sided)		Mean WNS score	Anova Sign.	
Gender	Women	25.7	25.0	49.3	100.0	.932		49.71	.788	
	Men	27.4	24.6	48.0	100.0			49.43		
Level of education	Without academic degree	28.5	20.9	50.6	100.0	.096	*	48.52	.012	*
	With academic degree	24.1	30.4	45.6	100.0			51.09		
Age*	Junior Millennials	25.5	27.9	46.6	100.0	.787		49.24	.674	
	Senior Millennials	24.9	25.9	49.2	100.0			48.24		
Employment status	Employed	30.1	20.4	49.6	100.0	.385		48.19	.082	
	Inactive_unemployed	25.4	26.4	48.2	100.0			50.11		
Frequency of drinking	Less than once a week	44.8	12.4	42.9	100.0	.000	***	45.30	.000	***
	At least once a week	20.1	29.2	50.7	100.0			51.11		
Spending per bottle	Below and equal to 10 euros	27.0	25.4	47.6	100.0	.859		49.44	.773	
	Above 10 euros	26.2	23.4	50.4	100.0			49.74		
Perceived wine competence	Low medium competence	29.4	22.4	48.3	100.0	.001	**	48.81	.000	***
	High competence	8.2	40.8	51.0	100.0			54.76		
Total		26.7	24.7	48.6	100.0					

Notes: \*,\*\*,\*\*\* Significant at  $p < 0.10$ ;  $p < 0.05$ ;  $p < 0.01$ . \*Junior Millennials are between 18–25 y-o, Senior Millennials are between 26 and 34 y-o. Source: our elaboration.

wine product choices. Millennials aim at having a wine-drinking experience that satisfies their expectation of a casual and social lifestyle. They pursue an exploration of emotions, made easily approachable and sharable, and inspired by credible and informative stories on wine and wineries. Within the Italian context, wine tradition is still appreciated. Yet, it should align itself with Italian Millennials' wine purchasing and consumption habits. The Millennials' widely acknowledged passion for technological solutions and devices is not significant for wine purchasing and consumption, as they enjoy wine purchasing and consumption in a face-to-face environment.

## 5. Conclusions

This paper provides new insights into the relationship between Millennials and the wine sector in Italy, with a focus on their reluctance and readiness towards unfamiliar or new wines or wine styles. They represent a promising innovation-oriented consumer group, even though they are influenced by family and societal consumption habits rooted in tradition and *terroir*. As underlined by Lockshin, 2003, in order to predispose an effective marketing plan for wine products, it is necessary to know how consumers approach wine, how they purchase it, and what perceptions and habits they have.

This is true for all target segments, but even more so for young and fast-evolving generations, such as the Millennials. The people that belong to this group can be an attractive

market segment for their large number, good purchasing power, independent in their spending decision, and dynamic in their market approach (Thach and Olsen, 2006). Therefore, interest in these consumers is growing at worldwide level, including Italy (Charters et al., 2011; Olsen et al., 2007; Nowak et al., 2006; Pomarici and Vecchio, 2014). This interest can be correctly exploited if Millennials' habits and preferences are adequately understood.

Furthermore, the global wine market is characterised by increasing competitiveness. Wine consumption suffered a decreasing trend, even in some countries with a history of wine production; latest data shows a break in this decline since 2015 (Agnoli et al., 2011; Thach and d'Hauterville, 2008; OIV, 2018). An emerging new class of consumers could represent an important market for wine sales and a target that wineries should definitely take into account.

### 5.1. Managerial implications

Research results provide interesting wine production and marketing managerial implications. The global wine market, including Italy, is exposed to a constant risk of oversupply, with many brands and producers. This leads to great, and increasing, competition and the adoption of various competitiveness strategies (Thach and Olsen, 2006; Gillespie, 2005; Bertazzoli et al., 2014; Corsi et al., 2018).

Since the beginning of the millennium wine experts suggest that producers and sellers find new consumer targets, instead of

putting pressure on the usual consumers. The present study provides initial insights into a new consumer segment, with focus on preferences, opinions and perceptions regarding innovative wine practices. Offering Millennial consumers with a customised wine would represent a novelty for the Italian market, with potentially high profitability. Marketers should plan strategic actions for Italian Millennial wine drinkers, and the recommendations derived from the present studies relate to various dimensions of strategic and operational marketing.

A successful strategy should be grounded in the awareness that Millennials are young and dynamic, and they are looking for a wine experience. Indeed, these Millennials perceive wine as possibly special or unique, to be shared with others, or to offer as a distinctive gift. Wine branding and brand loyalty have limited importance for this group. Millennials are open to novelties, especially if accompanied by nice product image, and informative labels. They search for a supportive purchasing experience. As concluded by [Henriques et al. \(2009\)](#), about FNS, it could be supported that through the WNS a wine marketer could plan effective strategies to achieve a competitive advantage proposing an innovative wine to a segment of consumers which is neophilic.

Furthermore, Millennials are not wine neophilic to the same degree. There are more and less favourably-inclined people within the group. Thus, if the wine product commercialised is innovative, the best target are the most neophilic Millennials. These have a high opinion of their wine knowledge competence, drink fairly frequently, and many of them have a university degree. Wine producers' and sellers' managerial decisions should not overestimate gender specificities, working conditions, and price issues, as they do not turn out to be differentiating features for wine neophilia. Similarly, junior and senior Millennials do not differ significantly in their inclination towards wine innovation. Overall, targeting Millennials means providing a social, distinctive, informed, supporting, gratifying and flattering experience, in order to reflect their lifestyle and bolster their own self-image.

## 6. Limitations and future developments

This paper represents a starting point in fully understanding the Millennials and their wine consumption and purchasing behaviour, with the goal of defining a consumers' segmentation strategy useful for wine producers and retailers. Millennials are often associated with other generations, but they have specificities and are not necessarily homogeneous. This is partially due to the wide age-range. People between 18 and 25 years old (we can call them Junior Millennials) may have a wine consumption and purchasing approach which is different from Senior Millennials, who are 26 to 35 years old, as confirmed by [Radovanović et al. \(2017\)](#). Future studies may further explore inconsistencies among different age-ranges, and ensure a better balanced representation of age and gender presentation in the sample.

A segmentation analysis of this group is challenging and could easily become obsolete, but it is a fundamental step in successfully characterizing this target and consequently in

customizing wine products' innovative attributes. In order to fully develop a marketing strategy, future studies should aim at quantifying the market size of the different groups of Millennial consumers and understanding which innovative wine product attributes are appreciated. Targeting Italian Millennials means identifying appropriate communication and sales channels (i.e. social media and e-commerce); tailored-made labels, new packaging (box, bags, plastic, smaller-sized bottles...) and closures (screw-caps or plastic corks); and innovative ingredients to enrich the wine and its aroma.

Some specific and well-explored extrinsic attributes may better satisfy the Millennials consumer's needs and expectations. Equally important is a clearer view of Millennials' willingness to pay for and experience new types of wine. A dedicated strategy will improve young customers' satisfaction, leading to a stronger and more distinctive competitive advantage of wine companies in this market. The identification of the most promising new wine attributes is relevant also for the foodservice industry, in particular the booming and innovation-oriented restaurant chains, such as fast-casual, and thus popular among the younger generations.

Finally, in this paper WNS has been applied to Italian Millennials following its original structure. In future studies WNS statements could be modified in order to change or add items that fully respond to the Italian respondents' wine approach and habits. Furthermore, as for FNS ([Choe and Cho, 2011](#)), it may be difficult to generalize and statistically compare the WNS results among countries or with previous studies scores. Therefore, the development of a WNS able to capture and analyse cultural and national differences in wine consumption and acceptance of new categories or attributes of wine is an interesting challenge for future studies.

## Acknowledgements

The Authors would like to thank Luca Mattia D'Antona, Federico Massari and Tommaso Solari for their contribution to the study.

## Conflict of interest

None.

## References

- Agnoli, L., Begalli, D., Capitello, R., 2011. Generation Y's perception of wine and consumption situations in a traditional wine-producing region. *Int. J. Wine Bus. Res.* 23 (2), 176–192. <https://doi.org/10.1108/17511061111143025>.
- Atkin, T., Thach, L., 2012. Millennial wine consumers: risk perception and information search. *Wine Econ. Policy* 1 (2012), 54–62. <https://doi.org/10.1016/j.wep.2012.08.002>.
- Barrena, R., Sanchez, M., 2012. Neophobia, personal consumer values and novel food acceptance. *Food Qual. Prefer.* 27 (2012), 72–84.
- Bertazzoli, A., Ghelfi, R., Rivaroli, S., 2014. Competitive drivers in Marsala's wineries. *Agribusiness* 30 (4), 456–469. <https://doi.org/10.1002/agr.21381>.
- Bigi A., Bonera M., Corvi E., 2007. Are the Italian Millennials similar or different from the US Millennials?. Conference In: Proceedings of the

- Seventh International Business Conference, Sidney, Australia, 3–6 December. ISBN 578-0-9804557-0-0.
- Castellini, A., Mauracher, C., Procidano, I., Sacchi, G., 2014. Italian market of organic wine: a survey on production system characteristics and marketing strategies. *Wine Econ. Policy* 2014 (3), 71–80. <https://doi.org/10.1016/j.wep.2014.12.001>.
- Castellini, A., Mauracher, C., Troiano, S., 2017. An overview of the biodynamic wine sector. *Int. J. Wine Res* 2017 (9), 1–11. <https://doi.org/10.2147/IJWR.S69126>.
- Chang, K.J., Thach, L.M.W., Olsen, J., 2016. Wine and health perceptions: exploring the impact of gender, age and ethnicity on consumer perceptions of wine and health. *Wine Econ. Policy*. <https://doi.org/10.1016/j.wep.2016.09.001>.
- Charters, S., Thach, L., Fountain, J., Kolyesnikova, N., Ritchie, C., Dodd, T., Fish, N., Herbst, F., Terblanche, N., 2011. Generation Y and sparkling wines: a cross-cultural perspective. *Int. J. Wine Bus. Res.* 2 (2), 161–175. <https://doi.org/10.1108/17511061111143016>.
- Choe, J.Y., Cho, M.S., 2011. Food neophobia and willingness to try non-traditional foods for Koreans. *Food Qual. Prefer.* 22 (2011), 671–677. <https://doi.org/10.1016/j.foodqual.2011.05.002>.
- Corsi, A., Pomarici, E., Sardone, R., 2018. Italy 1938–2016. In: Anderson, K., Pinilla, V. (Eds.), *Wine's Evolving Globalization: A New Comparative History*. Cambridge University Press, Cambridge and New York.
- De Magistris, T., Groot, E., Gracia, A., Albisu, L.M., 2011. Do millennial generation's wine preferences of the "New World" differ from the "Old World"? A pilot study. *Int. J. Wine Bus. Res.* 23 (Iss2), 145–160. <https://doi.org/10.1108/17511061111142981>.
- DiStefano, C., Zhu, M., Míndrilá, D., 2009. Understanding and using factor scores: considerations for the applied researcher. *Pract. Assess., Res. Eval.* 14 (20) (October 2009 ISSN 1531-7714).
- Estabrook, R., Neale, M., 2013. A comparison of factor score estimation methods in the presence of missing data: reliability and an application to nicotine dependence (1 January 2013). *Multivar. Behav. Res* 48 (1), 1–27. <https://doi.org/10.1080/00273171.2012.730072>.
- Eurispes, 2017. Rapporto Italia. ([www.eurispes.it](http://www.eurispes.it)).
- Evans, G., Kermarrec, C., Sable, T., Cox, D.N., 2010. Reliability and predictive validity of the Food Technology Neophobia Scale. Short communication. *Appetite* 54 (2010), 390–393. <https://doi.org/10.1016/j.appet.2009.11.014>.
- Fabris, G., 2013. Il nuovo consumatore: verso il postmoderno (The new consumer: towards postmodernity). Franco Angeli.
- Gillespie J., 2005. Broadening and strengthening the consumer base of the US wine market. Presentation made at the 2nd International Wine Marketing Symposium, Rohnert Park, CA, USA. 2005. July.
- Gillespie, J., 2010. Wine Market Council's 2010 Consumer Tracking Study. Presentation at Wine Market Council Seminar, Santa Rosa, CA, January 2010.
- Hartmann, C., Siegrist, M., 2018. Development and validation of the Food Disgust Scale. *Food Qual. Prefer.* 63 (2018), 38–50. <https://doi.org/10.1016/j.foodqual.2017.07.013>.
- Henriques, A.S., King, S.C., Meiselman, H.L., 2009. Consumer segmentation based on food neophobia and its application to product development. *Food Qual. Prefer.* 20 (2009), 83–91.
- Hershberger S.L., 2005. Factor Score Estimation. Published Online 2005, Oct. 15<sup>th</sup>, DOI:<https://doi.org/10.1002/0470013192.bsa726>.
- Howe, N., Strauss, W., 2000. *Millennials Rising: The Next Great Generation*. Knopf Doubleday Publishing Group (16 gen 2009).
- Hristov, H., Kuhar, A., 2015. Subjective knowledge as a determinant of young adult consumers wine behaviour. *Brit. Food J.* 117 (12), 2930–2946. <https://doi.org/10.1108/BFJ-04-2015-0163>.
- Johnson, T.E., Bastian, S.E.P., 2007. A preliminary study of the relationship between Australian wine consumers' wine expertise and their wine purchasing and consumption behaviour. *Aust. J. Grape Wine Res.* 13, 186–197 (2007).
- Junco, R., Mastrodicasa, J., 2007. Connecting to the Net. Generation: What Higher Education Professionals Need to Know About Today's Students. *NASPA* (ISBN 0-931654-4-3).
- King, E.S., Johnson, T.E., Bastian, S.E.P., Osiadacz, P., Francis, I.L., 2012. Consumer liking of white wines: segmentation using self-reported wine liking and wine knowledge". *Int. J. Wine Bus. Res.* 24 (1), 33–46. <https://doi.org/10.1108/17511061211213774>.
- ISMEA, 2018. Scheda di settore Vino. ([www.ismea.it](http://www.ismea.it)) (Last accessed 20 July 2018).
- ISTAT, 2017. Il consumo di alcool in Italia. ([www.istat.it](http://www.istat.it)) (Last accessed 18 July 2018).
- Lancaster, L.C., Stillman, D., 2002. *When Generations Collide: who They Are. Why They Clash. How to Solve the Generational Puzzle at Work*. HarperCollins Publishers.
- Lockshin, L., 2003. Consumer purchasing behavior for wine: what we know and where we are going. *Marches et Marketing du Vin, Bordeaux Ecole de Management n57-03, Aout*.
- McMillan, R., 2018. *State of the Wine Industry 2018*. Silicon Valley Bank Wine Division.
- Mehta, R., Bhanja, N., 2018. Consumer preferences for wine attributes in an emerging market. *Int. J. Retail Distrib. Manag.* 46 (1), 34–48. <https://doi.org/10.1108/IJRDM-04-2017-0073>.
- Mueller, S., Charters, S., 2011. Special issue "Generation Y and wine". *Int. J. Wine Bus. Res.* 23 (2)<https://doi.org/10.1108/ijwbr.2011.04323baa.001>.
- Nowak, E., Thach, L., Olsen, J., 2006. Wowing the millennials: creating brand equity in the wine industry. *J. Prod. Brand Manag.* 15 (5), 316–323. <https://doi.org/10.1108/10610420610685712>.
- Organisation internationale de la vigne et du vin, 2016. . Global state of condition report: developments and trends. ([www.oiv.int](http://www.oiv.int)) (Last accessed 03 June 2018).
- Organisation internationale de la vigne et du vin, 2018. State of the vitiviniculture world market. ([www.oiv.int](http://www.oiv.int)) (Last accessed 03 July 2018).
- Pliner, P., Hobden, K., 1992. Development of a scale to measure the trait of food neophobia in humans. *Appetite* 19 (2), 105–120.
- Pomarici, E., Vecchio, R., 2014. Millennial generation attitudes to sustainable wine: an exploratory study on Italian consumers. *J. Clean. Prod.* 66, 537–545. <https://doi.org/10.1016/j.jclepro.2013.10.058>.
- PwC, 2017. Il settore del vino in Italia: Scenari evolutivi e strategie nell'era digitale. (<https://www.pwc.com/it/it/industries/retail-consumer/assets/docs/settore-vino.pdf>) June 2017 [PwC is a network of firms offering services focused on industry sector].
- Quester, P.G., Smart, J., 1998. The influence of consumption situation and product involvement over consumers' use of product attribute. *J. Consum. Mark.* 15 (3), 220–238. <https://doi.org/10.1108/07363769810219107>.
- Radovanović V., Petrović J., and Radovanović B., 2017. . Behaviour of the 40th Millennial wine consumers in southern Serbia. In: Proceedings of the 40th World Congress of Vine and Wine. BIO Web of Conferences 9, 0301, 5, 2017, DOI: <https://doi.org/10.1051/bioconf/20170903015>.
- Ristic, R., Johnson, T.E., Meiselman, H.L., Hoek, A.C., Bastian, S.E.P., 2016. Towards development of a Wine Neophobia Scale (WNS): measuring consumer wine neophobia using an adaptation of the Food Neophobia Scale (FNS). *Food Qual. Prefer.* 49 (2016), 161–167. <https://doi.org/10.1016/j.foodqual.2015.12.005>.
- Ritchey, P.N., Frank, R.A., Hursti, U.-K., Tuorila, H., 2003. Validation and cross-national comparison of the food neophobia scale (FNS) using confirmatory factor analysis. Research report. *Appetite* 40 (2003), 163–173. [https://doi.org/10.1016/S0195-6663\(02\)00134-4](https://doi.org/10.1016/S0195-6663(02)00134-4).
- Saliba, A.J., Ovington, L.A., Moran, C.C., 2013. Consumer demand for low-alcohol wine in an Australian sample. *Int. J. Wine Res* 2013 (5), 1–8.
- Samoggia, A., 2016. Wine and health: faraway concepts?. *Br. Food J.* 118 (4) <https://doi.org/10.1108/BFJ-07-2015-0267>.
- Sellers, R., Alampi-Sottini, V., 2016. The influence of size on winery performance: evidence from Italy. *Wine Econ. Policy* 5 (2016), 33–41. <https://doi.org/10.1016/j.wep.2016.03.001>.
- Tabachnick B.G., Fidell L.S., 2013. *Using Multivariate Statistics*. Pearson.
- Tapscott, D., 2009. *Grown Up Digital: How the Net Generation is Changing Your World*. McGraw-Hill, New York.
- Thach, E.C., Olsen, J.E., 2006. Market segment analysis to target young adult wine drinkers. *Agribus* 22 (3), 307–322. <https://doi.org/10.1002/agr.20088>.
- Thach E.C., 2011. Wine for breakfast: exploring wine occasions for Gen Y. In: Proceedings of the 6th AWBR International Conference 9–10 June 2011 Bordeaux Management School – BEM – France (<http://academyofwinebusiness.com/wp-content/uploads/2011/09/3-AWBR2011-Thach1.pdf>).

- Thach L., d'Hauteville F., 2008. Why French Millennials don't drink wine. <https://www.winebusiness.com/news/?Go=getArticle&dataId=55252> (Last accessed June 2017).
- Wine Monitor Nomisma, 2018. Il ruolo del packaging nelle scelte di consumo di vino: un confronto tra i *Millennials* statunitensi ed italiani. [www.winemonitor.it](http://www.winemonitor.it) (Last accessed 25 July 2018).
- [www.buzzmyvideos.com](http://www.buzzmyvideos.com) (Last accessed October 2017).
- [www.beveragedaily.com](http://www.beveragedaily.com) (Last accessed November 2017).
- [www.MarketWatchMag.com](http://www.MarketWatchMag.com) (Last accessed January 2017).
- [www.packagingdigest.com/beverage-packaging/](http://www.packagingdigest.com/beverage-packaging/) (Last accessed November 2017).
- [www.uiv.it](http://www.uiv.it) (Last accessed June 2018).
- [www.winemarketcouncil.com](http://www.winemarketcouncil.com) (Last accessed July 2018).