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The growing (good) bubbles: insights into US consumers of sparkling wine

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Abstract
Purpose – The purpose of this paper is to investigate sparkling wine consumption behavior and preferences of a large sample of US consumers ($n = 1{,}096$) exploring the differences among genders and generational cohorts.
Design/methodology/approach – The sample has been drawn from Wine opinions, a specialized market research company with a large online panel of US wine consumers. Data were collected through a survey mailing model, administering a structured questionnaire.
Findings – Findings reveal that consumption frequency between genders is not statistically different and women generally prefer sparkling wines priced below $15. Baby Boomers is the generation with the lowest sparkling wine consumption frequency. Furthermore, Generation X and Baby Boomers have the highest consumption frequency in the price range $15–$19.99, while Millennials in the $10–$14.99 one.
Originality/value – The study sheds light on the changing consumer attitudes to create competitive advantages for wineries. Specifically, it provides valuable marketing insights into the peculiarities of sparkling wine consumption for each generation (e.g. price-point preferences and type of wine).

Keywords Generational cohorts, Consumption occasion, Online consumer panel, Price points, Wine choice
Paper type Research paper

1. Introduction
Over the last decades, wine business researches have explored wine consumers' characteristics and attitudes worldwide (Barber *et al.*, 2007; Bruwer and Li, 2007; Saayman *et al.*, 2012; Thach and Olsen, 2015). The rationale underlying this flourishing research line is the well-established belief that insights into consumers would enable their wine purchasing behavior to be uncovered (Lockshin *et al.*, 2006; Pomarici *et al.*, 2017). The current market scenario, indeed, is strongly driven by consumers who, having access to a wide variety of wines and brands from different countries, can easily alter their choices from one product to another. Theory suggests that consumers make their purchasing decisions based on the utility derived from the product that is a direct function of its single or combined characteristics (Apostolidis and McLeay, 2016). By a winery perspective, acquiring knowledge on wine consumers becomes central to adapting the product offer, market positioning and corporate communication. As a result, wineries can establish long-term relationships and strengthen their position on the market.

A decade of studies on wine consumers' preferences enabled discovery of: sociodemographic (e.g. age cohorts, gender, income) and psychographic (e.g. personal values and lifestyle)

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characteristics affecting consumer purchasing behavior (Ahmad, 2003; Agnoli *et al.,* 2011; Bruwer *et al.*, 2011; Charters *et al.*, 2011; Mueller *et al.*, 2011; Saayman *et al.,* 2012; Kelley *et al.*, 2015; Pomarici *et al.*, 2018); and perception of consumers toward various wine categories (e.g. still or sparkling wine) (Bruwer *et al.*, 2011; Fountain and Lamb, 2011; Mueller *et al.*, 2011) and the role played by specific attributes on wine preferences (see, among others, Casini *et al.*, 2009; Cohen, 2009; Williamson *et al.,* 2016; Pomarici *et al.*, 2017). There are several findings and implications of these studies, as well as analytical tools implemented (i.e. qualitative and quantitative). However, there are still unexplored areas of analysis in terms of wine categories, countries and age cohorts investigated.

This study investigates the sparkling wine consumption behavior and preferences of a large sample of US consumers. Specifically, it attempts to reveal the distinctive characteristics occurring between genders and the different generational cohorts as regards sparkling wine: frequency of consumption; purchase by price point; consumption by place and meal; and consumption by type. The USA was chosen due to the role played in the global wine market. By 2012, it had become the largest wine market in the world reaching 32m hectoliters, surpassing longtime leader France (27m) and representing 13 percent of the world wine consumption in 2017 (OIV statistics, 2017). Sparkling wine comprises roughly 10 percent of total wine sales in 2015 and is the fastest growing category of wine with a 33 percent increase in volume. Further, the import share of sparkling wines surged dramatically in the last 25 years reaching a compound annual growth rate of about 5 percent (Bailey, 2018). While the older generation is still the leader of sparkling wine consumption worldwide, new generations are claimed to be the main driver for the rise in the USA (Mueller *et al.*, 2011).Therefore, experts recommend extending the marketing focus on this segment as they will be the future consumers and opinion leaders (De Magistris *et al.*, 2011; Atkin and Thach, 2012; Spielmann *et al.,* 2016). This analysis aims to provide further knowledge on sparkling wine consumption in the USA suggesting useful insights for wine producers and marketers on how to target their product offer to different consumer cohorts.

2. Study background

Literature on consumers' preferences relies widely on the Lancaster's theory (Carlucci *et al.*, 2015). Lancaster (1966), in the "A new approach to consumer theory," stated that consumers do not derive utility directly from the product but rather from its characteristics. Lancaster's theory considers the product as an input of the consumption activity in which its characteristics – either intrinsic or extrinsic – are the resulting output (Ankamah-Yeboah *et al.*, 2016). According to Lancaster, consumers make their purchasing decisions based on the utility derived from the product that is a direct function of its single or combined characteristics (Apostolidis and McLeay, 2016; Kuhfuss *et al.*, 2016). Thus, the same product but with different characteristics may result in a different utility level (De Groote *et al.*, 2016). When it comes to consumer, the utility level is also affected by psychological, moral, social and ethical factors (Carlucci *et al.*, 2015; Nazzaro *et al.*, 2018, 2019). The latter act positively or negatively on consumer purchasing decisions, encouraging or discouraging consumers' choices. Over the last decade, a flourishing stream of research investigated product characteristics more appealing to consumers (Pomarici *et al.*, 2017; Chrysochou *et al.*, 2012). Other studies have also proven the influence of brand image, reputation, symbolism and cultural variation on the purchase decision of sparkling wine (Verdonk *et al.*, 2017; Velikova *et al.*, 2016). Currently, scholars are focusing on socio-demographics and cultural factors able to affect consumer behavior. This study contributes to the literature investigating differences in consumer behavior between genders and generational cohorts. Consumers' preferences are explored applying the Lancastrian approach. For instance, sparkling wine is examined in different social settings (i.e. home, bar, café or restaurant) that may provide diverse utility levels. Furthermore, single product attributes influencing sparkling wine choice have been deeply investigated. The next paragraphs briefly review previous studies on sparkling wine and socio-demographics and generational characteristics.

2.1 Sociodemographics and sparkling wine

Previous studies widely investigated the effects of socio-demographic characteristics of consumers – in particular gender and age – on sparkling wine consumption behavior. Bruwer *et al.* (2011) revealed a higher frequency for consumption of sparkling and rosé wine in females, while males were shown to prefer red wine. Stressing further on the feminine nature of sparkling wine, Fountain and Fish (2010) found that men are less inclined to drink wine on male dominated occasions, while Charters *et al.* (2011) also observed that the sparkling wine bottle recalls a female body in consumers' minds. Gender differences are even reflected in sensory preferences for sparkling wine as well as in consumers' response to wine knowledge. To this extent, females tend to prefer sparkling wines with light body and fruity aromas than males who favor more complex flavors (Culbert *et al.*, 2016). Moreover, according to a study conducted in the USA with 1,010 wine consumers, as wine knowledge increases, women are shown to like sparkling wine more than men (Pickering *et al.*, 2014).

Frequency of sparkling wine consumption is also affected by consumer age. For instance, older consumers drink sparkling wine more often than younger ones (Cerjak *et al.*, 2016). As for the drinking occasions, Charters *et al.* (2011) showed that young consumers strongly associate sparkling wine with social occasions. Indeed, a study conducted in three Anglophone countries (i.e. Australia, New Zealand and USA) illustrated that Champagne is the most favored drink for special gatherings and breakfasts (Ritchie *et al.*, 2011). In the same countries, Fountain and Fish (2010) revealed that younger consumers do not prefer to drink sparkling wine with a meal but find snacks to be a more suitable occasion. Lastly, young consumers seem to focus more on the symbolic attributes of sparkling wine than sensory ones (Fountain and Fish, 2010; Culbert *et al.*, 2016). For instance, since Champagne is seen as a proof of social status, younger people tend to purchase it mainly on social occasions where the action of buying or being seen to buy is as important as the consumption itself (Ritchie *et al.*, 2011). Furthermore, Vecchio *et al.* (2018) revealed that information on the production process of sparkling wines (i.e. Charmat vs Champenoise) strongly impacts expectations of young consumers (aged between 18 and 36).

2.2 Generational segmentation of consumers

The search for an effective wine market segmentation is still ongoing (Noble and Schewe, 2003; Bruwer *et al.,* 2011). Marketers, indeed, struggle to identify a way for grouping the heterogeneity of consumer behaviors (Bruwer *et al.*, 2017) into a smaller number of highly homogenous clusters (Pickering and Cullen, 2008). Generational segmentation is one of the approaches currently under scrutiny to investigate the behavior of different age cohorts (Thiene *et al.,* 2013). It enables the wine consumption patterns shared by individuals belonging to the same generational cohort to be revealed. The result would lead to more effective marketing campaigns to appropriately address the needs of different consumers.

Scholars and marketers have mainly investigated the Baby Boomer generation (i.e. those born between 1946 and 1964) due both to its significant purchasing power (Lancaster and Stillman, 2002) and market penetration (Agnoli *et al.,* 2011). Currently wine marketers suggest focusing on younger consumers (Atkin and Thach, 2012; Spielmann *et al.,* 2016). Indeed, Millennials (also called Generation Y, i.e. those born between 1977 and 1999) are going to be the major consumers and opinion leaders in the forthcoming decades (De Magistris *et al.,* 2011; Lerro *et al.,* 2019).Thus, understanding their behavior becomes central to ensure a stable growth of the industry (Fountain and Fish, 2010). Previous studies on generational segmentation have shown clear differences – in terms of wine preferences and purchasing behavior – across different age cohorts (Bruwer *et al.,* 2011; Fountain and Lamb, 2011; Mueller *et al.*, 2011). To this extent, older generations drink more wine and more frequently as they age (Mueller *et al.*, 2011) than younger generations that, however, tend to drink more at one time (Bruwer *et al.,* 2011). As for the wine purchasing behavior, Millennials spend significantly less either monthly or for a bottle of wine (Atkin and Thach, 2012; Bruwer *et al.,* 2011). Instead, Baby Boomers are firmly the heavy spender generation worldwide with an overall monthly expenditure for wine of about $200 or more, and an average expenditure for a bottle in the price range $10–$19 (Wolf *et al.*, 2018). Although no significant difference in terms of wine consumption has been observed between Millennials and Generation X (i.e. those born between 1964 and 1977), the former show a higher frequency of purchase as well as a tendency to drink a wider variety of alcoholic beverages (Fountain and Lamb, 2011; Mueller *et al.*, 2011). Furthermore, according to Mueller *et al.* (2011), younger generations more often drink white and rosé wines than older generations which, on the contrary, mostly favor red wines. Differences in wine purchasing behavior were also observed across age cohorts. For instance, older consumers seek more information when drinking wine and purchase more often in specialized shops (Thach and Olsen, 2006). Millennials, instead, are more likely to drink wine in restaurants and bars, attaching explicit social aspects to its consumption (Bruwer *et al.,* 2011). Lastly, in Mueller *et al.*(2011), generational differences across cohorts are observed to a lesser extent among the old-world wine countries than in the largest wine market in the world (i.e. the USA) encouraging further studies to support previous findings.

3. Methodology

3.1 Data collection and questionnaire

The sample has been drawn from Wine Opinions, a specialized market research company with a large online panel of US wine consumers. Data were collected through a survey mailing model, an approach widely used in marketing and epidemiology studies (Pickering *et al.*, 2014). Specifically, all respondents were sent an e-mail invitation with a link to the online survey. To encourage survey participation and return, those who completed the survey were entered in a lottery with cash prizes. Overall, 1,096 consumer panelists took part at the study.

The administered questionnaire consisted of three sections. In the first one, socio-demographic characteristics of respondents were collected, i.e. gender, age and US state of residence. In the second section, different purchasing and consumption behaviors were addressed. Specifically, sparkling wine consumption frequency was assessed using a set of ordinal response questions ranging from 1 = Every day to 6 = Once every few months, while sparkling wine purchasing frequency per price points was measured on a five-point Likert scale with endpoints (ranging from 1 “Weekly,” to 5 “Never”). To cover the wide range of prices on the market, six different price points of sparkling wine were implemented in the analysis in which the lowest was under $10, the highest over $50. Further, the study uncovered sparkling wine consumption behavior off-premise (i.e. at home) and on-premise (i.e. in a bar, cafe or restaurant) and with or without meals by using a three-point ordinal scale ranging from 1“Rarely/Never” to 3“Frequently.”The second section ended by measuring consumers frequency of consumption for different types of sparkling wines, namely, sparkling wine from California under $10, sparkling wine from California over $10, Cava sparkling wine from Spain, Prosecco under $10, Prosecco over $10, Champagne from France. For Cava and Champagne no price-point thresholds were applied, as in the US market these categories of wines have more homogeneous prices (Wine Intelligence, 2018). A five-point ordinal scale with endpoints (ranging from 1 = Never heard of this type, to 5 = Buy this type regularly) was used for the analysis. Lastly, in the final section of the questionnaire (i.e. the third), respondents were asked to express the main factors they look for when choosing a sparkling wine on-premise. Nine factors were included in the study drawn from the current literature on consumers preferences for both wine and sparkling wine (Chrysochou *et al.*, 2012; Kelley *et al.*, 2015; Pomarici *et al.,* 2017) namely, a lower alcohol level than most other sparkling wines, waiter/staff recommendation, suitability to match with my food, have had the wine before and liked it, famous production region, trusted brand, availability by the glass, style or type of sparkling wine, type of social occasion (celebratory, romantic, etc.).

Data analysis was performed using the Statistical Package for Social Sciences software (SPSS 22.0). Mann-Whitney and Kruskal Wallis comparison tests were then performed to see whether there were significant differences between generational cohorts and genders.

3.2 Sample description

The overall sample consisted of 1,096 respondents with a higher rate of women than men, 54.1 percent ($n = 593$) and 45.9 percent ($n = 503$), respectively (Table I). This result is consistent with previous studies that found a predominance of females among wine consumers (Olsen *et al.*, 2007; Charters *et al.*, 2011). Generations investigated in the study are developed according to the accepted model suggested by Lancaster and Stillman (2002). The three generational cohorts are almost equally represented in the sample. Specifically, except for Baby Boomers who are slightly overrepresented (roughly 39 percent of the sample), Generation X and Millennials are both one third of the overall sample (i.e. 31 and 30 percent, respectively). Lastly, respondents were geographically distributed all over the USA with a higher concentration on the West and East coasts. Indeed, the majority of respondents reside in California (21.8 percent of the total sample), followed by New York (8.4 percent) and Texas (6.1 percent).

Variables	Frequency %	No.
Gender		
Male	45.9	503
Female	54.1	593
Generational cohorts		
Millennials (21–40[a] years)	30.2	331
Generation X (41–53 years)	31.1	341
Baby Boomers and older (> 54[b] years)	38.7	424
State of residence		
California	21.8	239
New York	8.4	92
Texas	6.1	67
Florida	4.5	49
Ohio	4.0	44
Illinois	3.9	43
Massachusetts	3.7	41
New Jersey	3.6	40
Washington	3.3	36
Virginia	3.0	33

Notes: All other states are less than 3 percent. [a]Only participants who were at least 21 years old, which is US legal drinking age; [b]the so-called Great Generation (less than 2 percent of the total sample) is added to Baby Boomers

Table I.
Sample descriptive statistics

4. Results and discussion

4.1 Sparkling wine consumption behavior

Table II summarizes sparkling wine consumption behavior of respondents. The latter are equally distributed among those who drink sparkling wine weekly (roughly 26 percent of the sample) and those drinking it once every few months (26.6 percent). Furthermore, a very limited percentage of consumers state that they drink sparkling wine on an everyday basis (less than 1 percent), while about a quarter of respondents express a frequency of consumption of either a few times a month (24.5 percent) or once a month (22.3 percent). Sparkling wine consumption by occasion revealed that more than half of respondents occasionally consume sparkling wine off-premise and on-premise without meal (58 and 53.6 percent, respectively).As for the type of sparkling wine most consumed by respondents, more than one third of the sample (36.4 percent) state that they consume sparkling wine from California under $10 once or twice a month, while roughly half (47.5 percent) exceed this price threshold occasionally. The analysis revealed similar results for Prosecco sparkling wine. Specifically, 34 percent of respondents have once or twice tried Prosecco under $10, while 46 percent of them occasionally exceed $10. Lastly, Cava sparkling wine and Champagne are bought occasionally by one out of three (34.4 percent) and half of respondents (50 percent), respectively.

Taking into consideration purchasing behavior of respondents per price points, Figure 1 shows that more than one third of consumers (36.8 percent) purchase sparkling wines in the price range $15–$19.99 several times a year, followed with a slightly lower share by those spending either less (31.9 percent of the sample in the price range $10–$14.99) or more (33.5 percent in the price range $20–$29.99). Sparkling wine is rarely purchased on a weekly basis, mainly in the lower price ranges (6.3 percent, under $10; 8.5 percent, in the range $10–$14.99) and with a negligible share in the higher ones (1.8 and 0.6 percent for the ranges $30–$49.99 and over $50, respectively). Moreover, respondents are less inclined to purchase sparkling wines in both the lowest (under $10) and highest (over $50) price points. Specifically, more than 40 percent of respondents state they have never purchased sparkling wines priced at less than $10 or more than $50.

4.2 Sparkling wine consumption behavior by generations

Rank based non-parametric Mann-Whitney U test and Kruskal-Wallis H test were performed to determine whether there are statistically significant differences between gender and generation variables. As for generational cohorts, pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. The comparisons and significant differences between gender and generational cohorts on sparkling wine consumption are presented in Table III.

Statistically significant differences between generational cohorts arose from the analysis. Specifically, Millennials is the cohort with the highest sparkling wine consumption ($M = 4.80$, $SD = 1.36$), closely followed by Generation X ($M = 4.70$, $SD = 1.33$). Baby Boomers, instead, show the lowest consumption ($M = 4.43$, $SD = 1.30$) of sparkling wine among the cohorts investigated. This difference was statically significant compared to Millennial and Generation X generations. This result is supported by previous studies revealing a preference of older consumers for other types of wine (Thach and Olsen, 2006; Agnoli *et al.,* 2011; Bruwer *et al.,* 2011; Mueller *et al.*, 2011; Atkin and Thach, 2012). While younger consumers tend to drink wine in moderation preferring other wine styles (i.e. sparkling wine) and alcoholic drinks (i.e. beer and soft drinks), wine is largely consumed among older consumers. Following the Lancastrian approach, the reasons behind these preferences may be in the perceived formality associated with wine consumption. Specifically, wine is often drunk during meals while sparkling wine or other alcoholic drinks on less formal occasions – mainly

Variable name	Description	Frequency (%)
Frequency of consumption	Once every few months	26.6
	Once a month	22.3
	Few times a month	24.5
	Once a week	15.5
	Few times a week	10.3
	Every day	0.8
Frequency of consumption by place and meal	*At home, before a meal or without food*	
	Frequently	27.4
	Occasionally	58
	Rarely/never	14.6
	At home, with a meal	
	Frequently	14.5
	Occasionally	54.5
	Rarely/never	31
	At a bar, cafe or restaurant before a meal or without food	
	Frequently	19.6
	Occasionally	53.6
	Rarely/never	26.8
	At a bar, cafe or restaurant with a meal	
	Frequently	14.2
	Occasionally	48.4
	Rarely/never	37.4
Frequency of consumption by type	*Sparkling wine from California under $10 (retail price)*	
	Never heard of this type	10.4
	Heard of but not tried	23.3
	Tried once or twice	36.4
	Buy this type occasionally	22.7
	Buy this type regularly	7.2
	Sparkling wine from California over $10 (retail price)	
	Never heard of this type	2.9
	Heard of but not tried	7.9
	Tried once or twice	22.9
	Buy this type occasionally	47.5
	Buy this type regularly	18.8
	Cava sparkling wine from Spain	
	Never heard of this type	12.0
	Heard of but not tried	14.3
	Tried once or twice	25.0
	Buy this type occasionally	34.4
	Buy this type regularly	14.3
	Prosecco under $10 (retail price)	
	Never heard of this type	7.9
	Heard of but not tried	20.8
	Tried once or twice	38.2
	Buy this type occasionally	24.5
	Buy this type regularly	8.6
	Prosecco over $10 (retail price)	
	Never heard of this type	2.9
	Heard of but not tried	7.0

(*continued*)

Table II. Respondents' sparkling wine consumption behavior

Variable name	Description	Frequency (%)
	Tried once or twice	25.5
	Buy this type occasionally	46.5
	Buy this type regularly	18.1
	Champagne from France	
	Never heard of this type	1.7
	Heard of but not tried	6.4
	Tried once or twice	18.1
	Buy this type occasionally	50.0
	Buy this type regularly	23.8

Table II.

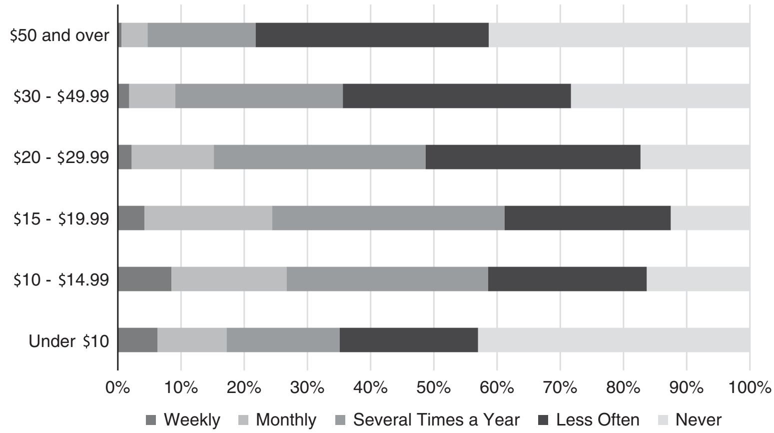

Figure 1.
Sparkling wine purchase frequency per price points

without meals – such as a gathering with friends outside home, common occasions for the younger generations.

The findings also revealed marked differences among gender and generations in terms of sparkling wines purchasing frequency per price point. All generations consume mostly sparkling wines priced between \$10 and \$19.99. Specifically, Generation X and Baby Boomers have the highest consumption frequency in the price range \$15–\$19.99 ($M = 2.83$, SD = 1.07 and $M = 2.64$, SD = 0.97, respectively), while Millennials in the \$10–\$14.99 one ($M = 2.92$, SD = 1.22). Millennials have significantly higher frequency of purchase for sparkling wines under the threshold price of \$20. The difference with the closest cohort (i.e. Generation X) was significant for sparkling wines under \$10. This result is in accordance with the study of Atkin and Thach (2012). The choice of Generation X consumers to purchase sparkling wines in a higher price range may suggest a strategy of risk reduction implemented to lessen the social pressure. Indeed, since wine choice is affected by the perception of approval or disapproval exercised by peers, consumers rely on price as signal of product quality. The purchasing behavior of Baby Boomers is remarkable, as – compared to other generations – show the lowest frequency of consumption for all price points. The latter is in accordance with the study of Thach and Olsen (2015).Lastly, significant differences were observed between genders across all price points,except for sparkling wines priced at\$15–\$19.99. Overall, males purchase mostly sparkling wines in higher price points (over \$20), while females prefer cheaper ones (under \$15). The study

Table III. Differences among gender and generational cohorts

	Overall sample	Gender		Generation		
		Male	Female	Millennials	Generation X	Baby Boomers
Frequency of sparkling wine consumption (Scale 1–8: 1 = Do not drink sparkling wine of any kind; 8 = Every day)	4.63 (1.34)	4.55^{a} (1.28)	4.70^{a} (1.38)	4.80^{a} (1.36)	4.70^{a} (1.33)	4.43^{b} (1.30)
Sparkling wine purchase by price point (Scale 1–5: 1 = Never to 5 = Weekly)						
Under $10	2.16 (1.26)	1.91^{a} (1.16)	2.37^{b} (1.30)	2.38^{a} (1.33)	2.08^{b} (1.26)	2.03^{b} (1.18)
$10–$14.99	2.78 (1.17)	2.59^{a} (1.20)	2.93^{b} (1.13)	2.92^{a} (1.22)	2.82^{a} (1.20)	2.60^{b} (1.09)
$15–$19.99	2.77 (1.04)	2.76^{a} (1.04)	2.79^{a} (1.04)	2.87^{a} (1.08)	2.83^{a} (1.07)	2.64^{b} (0.97)
$20–$29.99	2.49 (0.99)	2.64^{a} (1.00)	2.36^{b} (0.97)	2.5^{a} (1.04)	2.53^{a} (1.00)	2.44^{a} (0.94)
$30–$49.99	2.18 (0.98)	2.41^{a} (0.97)	1.98^{b} (0.95)	2.17^{a} (1.04)	2.24^{a} (1.01)	2.14^{a} (0.92)
$50 and over	1.86 (0.89)	2.03^{a} (0.87)	1.71^{b} (0.87)	1.88^{a} (0.93)	1.90^{a} (0.91)	1.80^{a} (0.82)
Sparkling wine consumption by place and meal (Scale1–3: 1 = Rarely or never; 3 = Frequently)						
At home, before a meal or without food	2.13 (0.64)	2.11^{a} (0.62)	2.14^{a} (0.64)	2.17^{a} (0.63)	2.13^{a} (0.65)	2.09^{a} (0.61)
At home, with a meal	1.84 (0.65)	1.81^{a} (0.68)	1.86^{a} (0.68)	1.84^{a} (0.67)	1.88^{a} (0.65)	1.79^{a} (0.65)
At a bar, cafe or restaurant before a meal or without food	1.93 (0.68)	1.83^{a} (0.66)	2.01^{b} (0.68)	2.02^{a} (0.69)	1.98^{a} (0.68)	1.79^{b} (0.65)
At a bar, cafe or restaurant with a meal	1.77 (0.68)	1.67^{a} (0.66)	1.86^{b} (0.68)	1.87^{a} (0.69)	1.82^{a} (0.69)	1.63^{b} (0.65)
Sparkling wine consumption by type (Scale 1–5: 1 = Never heard of this type; 5 = Buy this type regularly)						
Sparkling wine from California under $10 (retail price)	2.93 (1.08)	2.80^{a} (0.95)	3.03^{b} (1.16)	2.99^{a} (1.11)	2.90^{a} (1.09)	2.90^{a} (1.03)
Sparkling wine from California over $10 (retail price)	3.71 (0.95)	3.83^{a} (0.86)	3.61^{b} (1.02)	3.53^{a} (1.04)	3.79^{b} (0.94)	3.80^{b} (0.87)
Cava sparkling wine from Spain	3.25 (1.22)	3.45^{a} (1.11)	3.07^{b} (1.27)	3.18^{a} (1.27)	3.28^{a} (1.22)	3.28^{a} (1.17)
Prosecco under $10 (retail price)	3.05 (1.05)	2.94^{a} (0.99)	3.15^{b} (1.10)	3.14^{a} (1.05)	2.99^{a} (1.07)	3.04^{a} (1.04)
Prosecco over $10 (retail price)	3.70 (0.94)	3.69^{a} (0.86)	3.70^{a} (1.00)	3.71^{a} (0.96)	3.72^{a} (0.94)	3.67^{a} (0.93)
Champagne from France	3.88 (0.90)	4.10^{a} (0.75)	3.69^{b} (0.97)	3.80^{a} (0.94)	3.95^{b} (0.90)	3.88^{b} (0.86)

Notes: Different superscripts reveal that measurements are significantly different according to Mann–Whitney (gender) and Kolmogorov–Smirnov (generation) tests (at least < 0.05). Standard deviations are reported in parenthesis

findings support prior researches showing a higher consumption – for males – of sparkling wines in higher price points (over $10) (Thach and Olsen, 2006; Barber *et al.*, 2009; Ritchie, 2009; Fountain and Lamb, 2011).

The analysis uncovered the differences in off-premise and on-premise sparkling wine consumption, either with or without a meal. Analyzing on-premise consumption(e.g. at a bar, cafe or restaurant), statistical differences were observed between gender and generations. Millennials and Generation X show similar behavior of sparkling wine consumption outside home with or without food. Conversely, Baby Boomers have the lowest consumption across all generations. To this extent, sparkling wine is not perceived as an everyday drink but rather as a wine to drink on special occasions such as celebrations or pleasant moments in general, which Millennials mostly choose to experience outside home. Higher sparkling wine consumption of Millennials is in accordance with the literature (Bruwer *et al.*, 2011; Charters *et al.*, 2011). Similar to previous research by Atkin *et al.* (2007) and Agnoli *et al.* (2011), sparkling wine consumption behavior at home did not statistically differ among generations and genders. Suggesting that, the higher consumption at home without food (observed in all generations), may be lead by a lower level of stress when wine is purchased for to be drank in a friendly/familiar setting (Atkin and Thach, 2012). As for gender differences, overall findings reveal that females of all age cohorts have higher on-premise consumption frequencies, confirming what previously reported in the literature (Pettigrew, 2003; Hoffman, 2004; Bruwer and Li, 2007; Agnoli *et al.*, 2011). However, this gap is especially remarkable among Generation X and quite limited among Baby Boomers.

Taking into consideration consumption frequencies for specific sparkling types, statistically significant differences underline that females prefer lower priced sparkling wines (California and Prosecco under \$10), whilst males consume more Champagne and California sparkling wines priced over \$10. In addition, Champagne has the highest consumption rates among all generational cohorts. Sparkling wines from California over \$10 is the category with highest consumption after Champagne for Generation X and Baby Boomers.

4.3 Factors influencing sparkling wine choice

Figure 2 shows the preferences of US consumers when choosing a sparkling wine on-premise, evaluated through a set of check-all-that-apply questions. Having tasted the wine before and liking it is stated as the most important factor (67 percent). Availability by the glass closely follows previous experience as an important factor (66 percent). Style or type of sparkling wine and type of social occasion are stated by more than half of respondents as important (62 and 55 percent, respectively). Other factors including suitability with food, trusted brand, waiter/staff recommendation and reputation of the production region are stated as important by less than half of respondents (45, 44, 40, 27 percent, respectively). The least important factor stated is a lower alcohol level compared to other sparkling wines (4 percent).

The factors affecting consumers choices for sparkling wine were further analyzed by generational cohorts (Table IV). The findings showed some differences across the generations investigated. Specifically, two factors were found to be significantly different ($p < 0.05$) after pairwise comparisons with Bonferroni correction. Millennials assign greater importance to

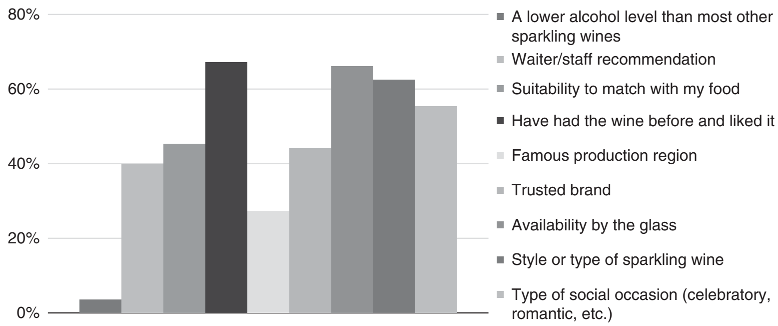

Figure 2. Important factors when choosing a sparkling wine on-premise

Table IV. Top five factors affecting sparkling choices by generations

Rank	Millennials	Generation X	Baby Boomers
I	Availability by the glass	Availability by the glass	Have had the wine before and liked it
II	Style or type of sparkling wine	Have had the wine before and liked it	Availability by the glass
III	Have had the wine before and liked it	Style or type of sparkling wine	Style or type of sparkling wine
IV	Type of social occasion (celebratory, romantic, etc.)	Type of social occasion (celebratory, romantic, etc.)	Type of social occasion (celebratory, romantic, etc.)
V	Waiter/staff recommendation	Suitability to match with my food	Trusted brand

waiter/staff recommendation, compared to the other two generations. Moreover, Millennials significantly differ from Generation X by assigning greater importance to the type of social occasion in which the wine is consumed. In general terms, availability by the glass appears to be a core driver of sparkling wine choice on-premise, as it is ranked first by Millennials and Generation X and second by Baby Boomers. Furthermore, Baby Boomers are the only ones to consider the brand among the factors affecting sparkling wine choice.

5. Marketing implications

The wine industry is regarded as a highly heterogenous, dynamic and fast-changing industry making it one of the most complex and competitive businesses worldwide (Thach and Olsen, 2006).

The study findings offer additional evidence - for wine companies interested in the US market – that younger consumers are a privileged target for sparkling wines. Future campaigns could therefore be further tailored to this specific generation, also given their growing importance in terms of total market shares. For instance, wineries should use social medias more powerfully and implement compelling storytelling strategies that could effectively attract and engage these individuals. Furthermore, distinctive price-point preferences are clearly visible among consumers; with women more oriented toward lower-priced sparkling wines (especially below $15) than men. The latter suggests that marketers should implement more aggressive price-based promotional activities specifically addressed to female shoppers. In addition, wine companies should bear in mind that consumers consider availability by the glass and wine style/type as key drivers of sparkling wine choice in on-premise situations. Thus, marketing activities might foster product differentiation underlining different sparkling styles (e.g. Charmat vs Champenoise) and better bond with on-premise operators to increase by the glass availability of a wide range of sparkling wines. Furthermore, the overall importance assigned to consuming sparkling wine on special social occasions (celebratory or romantic) suggests the need to further develop the potentials of linking sparkling with daily (regular) consumption, perhaps exploiting food pairings possibilities and drinkability.

6. Limitations and future research

Although the results suggest several useful insights for wineries, a few limitations in the study need to be addressed in further research. Indeed, it is important to keep in mind that respondents of this study may not fully represent the US wine consumer population, as panelists are generally more involved in wine and sparkling wine consumption and more knowledgeable about wine than the average consumer. Another limitation is the type of surveying technique, which creates a self-selection bias limiting the representativeness of respondents' behavior and preferences. Future researches should thus target a fully representative sample. Moreover, due to the fast-changing nature of preferences and behaviors as well as the effect of aging, the current findings provide a time-framed scenario that should be constantly updated. Furthermore, and prominently, additional studies on generational differences among US consumers' behavior and preferences for sparkling wines should provide more detailed insights into the key drivers influencing purchasing and consumption choices. Indeed, researchers should identify the core trends prompting generational cohorts' preferences (e.g. healthy lifestyle for middle-aged consumers), together with the most effective instruments to deliver tailored information to specific market targets (e.g. applying more interactive and engaging systems to reach younger individuals). Therefore, future research could apply qualitative analysis techniques to better investigate these issues and provide marketing inputs. Lastly, current findings highlight that important differences are found between on-premise and off-premise sparkling choices. Thus, practitioners and scholars should devote deeper attention to uncover preference dynamics of these two purchasing occasions, also considering the paucity of on-premise research data.

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