



CRAFT BEER MON AMOUR **An exploration of Italian craft consumers**

Journal:	<i>British Food Journal</i>
Manuscript ID	BFJ-07-2019-0476.R2
Manuscript Type:	Research Paper
Keywords:	Craft beer, Choice experiment, Willingness to buy, Willingness to pay, OLS regression, Cluster Analysis

CRAFT BEER MON AMOUR

An exploration of Italian craft consumers

Abstract

Purpose: The goal of the paper is to contribute understanding tendencies of the Italian demand for craft beer. More in details, it seeks at exploring consumers’ awareness about craft beer, their attitudes, habits and behaviors. It also aims at assessing the impact of each and all these features on consumers’ choice. Last, the paper frames different consumers’ profiles.

Design/Methodology/Approach: The analysis is based on an on-line survey associated with a choice experiment designed for assessing willingness to buy (WTB) and willingness to pay (WTP) for craft vs industrial beer. Factors influencing consumers’ expenditure for craft beer are explored via an OLS estimation of a simple regression model. Afterwards, different consumers’ profiles are depicted via cluster analysis.

Findings: The survey shows that, overall, Italian consumers appreciate craft beers and are interested in this market. Socio-demographic characteristics impact this inclination but have no significant influence on the results of the choice experiment. Market knowledge, preferences and consumption habits influence consumer spending. Five different consumer profiles emerge.

Originality/Value: The research proposes a combined original methodology for assessing beer consumers’ features and their impacts on beer WTB and WTP. The complementary perspectives adopted provide new insights on craft beer demand. Results are of interest for craft brewery managers and for the design of policies aimed at promoting and expanding the sector. Enlarging the sample and improving its representativeness would allow for more general results.

Keywords: Craft beer, Choice experiment, Willingness to buy, Willingness to pay, OLS regression, cluster analysis

1. Introduction

The geography of beer markets is changing all over the world, recording an increase in consumption especially in countries that were traditionally wine drinkers (Colen and Swinnen, 2011). Among these *new beer countries* there is Italy where average annual per capita consumption remains about one third of the European average but where in the last years (2012-2018) beer became more popular with annual per capita consumption that raised constantly from 29.3 to 33.6 liters (Aquilani et al., 2015, Assobirra, 2018 and 2019). Moreover, the number of people drinking beer has also significantly increased especially among the youngest and among women (Assobirra, 2019; Garavaglia, 2015). It is worthwhile to pinpoint that during 2007-2018 Italian average wine consumption declined from 41.8 to 35.8 liters per year (www.inumeridelvino.it).

On the supply side, aggregate figures show that in 2018 beer production in Italy reached 16.5 million hectoliters employing about 23.5 thousand people. In particular, Italy enjoys the rise of thousand craft breweries and of micro brew pubs from North to South, in urban areas as well as in rural ones where they are seen as potential leverages for local development, particularly in more marginalized economic contexts (Esposti et al., 2017; Franceschelli et al., 2018; Mathias et al., 2018). Furthermore, the innovation capacity, the ability and creativity of many Italian small craft breweries are pushing sales also on foreign markets (Esposti et al., 2017; Santoro et al., 2017).

The rapid enlargement of the market for craft beers from a small niche to a wider segment has attracted the attention of the Italian legislator who in 2015 (G.U., L. n.154, July 28th 2016) allowed for the possibility to add the “Craft beer” cue on product labels, provided that beer is produced in small independent breweries that overall produce less than 200 thousands hectoliters of not-pasteurized nor microfiltered beer.

The goal of the paper is twofold. First, it seeks at understanding which factors mostly affects the choice (i.e. willingness to buy -WTB- and willingness to pay -WTP) of craft versus industrial beers. Second, it aims at depicting different beer consumers' profiles that may help a better market targeting while fostering the effectiveness of communication strategies and of promotional events. The relevance of these goals appears clearly when thinking of the recent and quick development of this product in Italy. Despite the relatively large numbers of

researches that explore this market, there are features defining consumers’ knowledge of the product, their consumption habits and preferences that still remain to be further explored.

The research is based on an on-line consumers’ survey. The information collected provides an overview of the main demand characteristics, ranging from brand knowledge, preferred beer attributes and consumption behavior, including quantity and frequency and preferred places/situations. Furthermore, lifestyles and socio-demographic characteristics are assessed in order to explore their association with beer consumption. At the end of the survey a choice experiment with 5 rounds of choice is proposed to interviewees where they are asked to choose between craft and industrial beers at different relative prices. The results of the choice experiment are explained by a set of independent variables built on information collected with the survey. Furthermore, some of these variables feed a cluster analysis that serves for depicting different consumer’s profiles.

The remainder of the text is organized as follows: Section 2 comprises a brief literature review; Section 3 illustrates the methodology; Section 4 presents and discusses results obtained while Section 5 concludes.

2. Literature Review

The boom of the craft beer industry started in the USA at the beginning of the eighties of the last century (Carrol and Swaminathan, 2000) and a few years later spread out in Europe and Latin America (Cobras and Bamforth, 2016; Toro-Gonzales, 2015). After a few more years (at the beginning of the nineties) craft beers started becoming popular also in Australia and China (Argent, 2017; Tsang and Li, 2016).

The growing interest for craft beer has been related to the wider involvement with traditional local food that is perceived as healthier, more environmental-friendly and more socially sustainable (Skoglund and Sjölander-Lindqvist, 2019). This tendency is somehow seen as a reaction to globalization and to the consequent weakening of the linkages between people and places (Carbone, 2018; Kneafsey et al., 2008).

The demand trend in favor of artisanal (or craft) beers now appears well consolidated while the so called “home-based craft production-consumption activity” became trendy (Elliot, 2016; Campbell, 2005). These leisure activities also feed the commercial sector as in a number of cases they give birth to successful commercial breweries (Fastigi et al., 2018; Murray and

O'Neil, 2012). Craft beer tends to be fashion especially, but not only, among youngsters whose social prestige within the group of friends also relies on their experience and expertise in craft beer (Hellman et al, 2010).

The search for product diversification also plays a role in the development of the craft beer market as these beers increase variety both on a geographical base and in terms of raw materials, flavorings and so forth (Carvalho et al., 2018; McLaughlin et al., 2014). The lower quantities produced by the small craft breweries also add a sense of rarity and exclusiveness (Koford and Tschoegl, 1998). In addition, the increase of beer consumption has been related to the expansion of social life that follows economic growth and expenditure capacity of younger people (Silva et al., 2016). In fact, some authors found that drinking beer is significantly associated with leisure activities and informal social occasions (Yang et al., 2002).

A recent strand of literature explored which craft beer features are more active in stimulating consumers. Calvo-Porrall et al. (2018) found that product image and perceived quality (also highlighted by Kleban and Nickerson, 2012), together with product reliability (i.e. constant quality) have a major role. Also, being familiar with a beer and/or its brand induce choice, even if curiosity remains a leverage of consumption (Giacalone et al., 2013). Craft beer consumers are also found to be well aware of what the drink and their choice is seldom casual; furthermore, they have a higher willingness to pay compared to industrial beer consumers. In particular, Berkhout et al. (2014) found that consumers are more willing to reduce quantity than quality in order to avoid the raise of expenditure for craft beer. In fact, as the quality-price ratio is very strict in this industry (Ascher, 2012; Bredhal, 1999) and due to the high concern for quality, when there are budget constraints consumers may prefer to accept drinking less. Coherently, other authors found that the higher price level is a limiting factor of the expansion for this market (Murray and O'Neill, 2012).

With respect to consumers' socio-demographic characteristics, different papers noted that these are mainly young (19-39 years old) not married men with a high share of graduate and professionals with income in the upper part of the distribution (Carvalho et al., 2018; Murray and O'Neill, 2012).

This seems to assure a positive future to the market, both thanks to the long life-time horizon of these persons and for their higher purchasing power. Women drink less than men, especially because they are more concerned with health (Carvalho et al., 2018; Donadini et al., 2011).

Notwithstanding, women are becoming a new promising target as their consumption is increasing together with their interest as shown by the growing number of women that become sommelier (Sebrae, 2015).

3. Methodology

The paper has two related goals. First, it seeks at understanding which are the main factors affecting consumers expenditure for craft versus industrial beers. Second, it aims at depicting different beer consumers' profiles both with respect to their preference for beer versus other alcoholic beverages and with respect to craft versus industrial beers. In order to meet these goals, the research combines: i) the OLS estimation of a regression model where expenditure for craft beer relative to that for the industrial product is explained by a number of variables concerning consumption habits, product knowledge and preferences, together with personal features; ii) a cluster analysis that helps to sketch different consumers' profiles. These two parts of the analysis are better described in the reminder of this section together with the survey used for collecting data.

3.1 The Survey

The consumers' survey took place in Italy during 2018 Spring, it is based on a questionnaire and was conducted via web with the Google survey platform *Moduli*. People were reached and invited via different social networks starting with a small group of students at Tuscia University and progressively enlarging the number of contacts¹. The sample used for the purpose of the present analysis is of 356 people even if 425 questionnaires in total were collected, however 69 questionnaires were incomplete and could not be used.

The questionnaire explores knowledge, preferences and consumption habits related to drinking beer. Personal features of interviewees were also collected. People were asked to participate and instructions on how to compile the questionnaires were provided on line; no incentives have been offered whatsoever for participating in the survey.

At the end of the interview the following choice experiment was proposed: there were 5 rounds of simulations; in each round 1 craft and 1 industrial beer were offered at different prices and

¹ This survey - taking into account the intuitions of Kleban and Nickerson (2012) on the role of social media in beer marketing (Barlow et al., 2018; Clemons et al., 2006) and those of Galizzi and Garavaglia (2012) on the growing interest of young people in beer - focused mainly on young consumers and on those who use social networks.

the interviewee was asked to choose, the no-choice option was always possible. Prices spanned from 3.5 to 5.5 euros with 0.5 euros intervals².

3.2 The OLS estimates

The regression model defined in equation (1) poses that total expenditure for craft vs industrial beer can be explained by the following three groups of variables:

- i) consumption habits and preferences for drinking beer;
- ii) consumption habits and preferences for drinking specifically craft beer;
- iii) socio-demographic characteristics of the respondent: gender, employment and residence.

The model is as follows:

$$\log S_{\text{Start}} = \alpha_0 + \alpha_1 \text{Be} + \alpha_2 \text{Or} + \alpha_3 \text{Col} + \alpha_4 \text{FrCons} + \alpha_5 \text{DCons} + \alpha_6 \text{HCons} + \alpha_7 \text{PCons} + \alpha_8 \text{RCons} + \alpha_9 \text{B\&SCons} + \alpha_{10} \text{KBCr} + \alpha_{11} \text{CvsI} + \alpha_{12} \text{NoF\&P} + \alpha_{13} \text{PT} + \alpha_{14} \text{KBCons} + \alpha_{15} \text{G} + \alpha_{16} \text{E} + \alpha_{17} \text{R} + \epsilon_0 \quad (1)$$

Where:

- *S_{Start}*: is the dependent variable expressing the *total expenditure for craft beer* resulting from the number of times each interviewee chose the craft option, over five rounds, multiplied by the price at which the craft is chosen at each round.
- *Be*: is a dummy where value one indicates consumers who *prefer beer* to other alcoholic beverages and that is zero otherwise.
- *Or*: captures the preference for domestic beers as opposed to imported ones. Three dummies are used: one for those who prefer *national* beers, one for those who prefer *foreign* ones, and one where no a priori or *overall preferences* are declared (and this is the benchmark).
- *Col*: indicates the inclination for blond as opposed to dark beer. Again, three dummies are included: preference for *blond* beers, preference for *dark* ones, *no preference* (the benchmark).

² The price of the craft beers was progressively increased while, at the same time, the price of the industrial one was reduced.

- *FrCons*: measures beer consumption frequency. Five dummies stand for the following consumption patterns: *weekly*, *monthly* (the benchmark), *irregular*, *seasonal*, *occasional/never*.
- *DCons*: is a dummy for consumption at disco.
- *HCons*: is a dummy for home consumption.
- *PCons*: is a dummy for pub consumption.
- *RCons*: is a dummy consumption at restaurant.
- *B&SCons*: is a dummy for consumption in other public places (e.g. bars, sport events, etc.)³.
- *KBCr*: is a dummy expressing the knowledge of craft beer brands. The dummy is one for interviewees who know at least one brand of crafts and zero otherwise.
- *CvsI*: measures the overall evaluation of craft beers as opposed to industrial ones. Five dummies are included: *always*, is chosen by those who think that craft beers are always better than industrial ones; *usually*, *depends*, *don't know* and *never*, are built in the same way. *Usually* is set as the benchmark.
- *NoF&P*: is a dummy where one indicates that the preference for crafts is to be related to the absence of *filtering and pasteurizing*.
- *PT*: is a dummy where one indicates that the preference for crafts is related basically to their *taste*.
- *KBCons*: in this case three dummies indicates whether *craft* or *industrial* is more frequently consumed. The balanced situation is the benchmark.
- *G*: is the *gender* where male is set as benchmark⁴.
- *E*: indicates the kind of employment: three dummies distinguish among *university student*, *professional/teacher* and *other* (this last group, set as the benchmark, gathers jobs that do not require a university degree).
- *R*: indicates the geographical area in Italy where interviewees live: four dummies distinguish *Northern regions*, *Central regions* (set as benchmark) and *Southern ones*, also *unknown place* of residence is included due to the presence of a number of non-respondents.
- α_0 is the constant term while α_1 to α_{17} are the variable coefficients.

³ Interviewees could select more than one place/situation.

⁴ Age has been omitted due to the prevalence of young people in the sample; furthermore, age resulted correlated with the profession as young interviewees were basically students.

The functional form chosen for the OLS estimate is the semi-logarithmic where the coefficients have a clear economic interpretation as the *coeteris paribus* percentage change in the dependent variable associated to the value of a unit change the explanatory variable (Cacchiarelli et al., 2016; Brown and Ethridge, 1995; Halvorsen and Pollakowski, 1981)⁵. The presence of multicollinearity among the variables included in the model is checked by the variance inflation factor test (VIF)⁶⁷.

3.3 Cluster Analysis

With the aim to scout the presence of different consumers' attitudes, knowledge and behavioral patterns within the sample, a cluster analysis (CA) was performed. This family of algorithms allows to divide a number of objectives into groups that are homogeneous (or similar) based on the variables used for their description (Dolnicar, S., 2003): CA is widely used in consumer studies and marketing analysis (Dolnicar, 2002) and has been recently used also for analyzing the Spanish beer market (Calvo-Porrall et al., 2018).

For clustering the sample eleven variables were chosen: WTP for craft beer; WTB craft beer; knowledge of craft beer brands, weekly consumption of beer, average drinking quantity, preference to drink beer at the pub, preference to buy beer at beer-shops, participation in beer-based events, habit to drink more craft than industrial beer, evaluating craft better than industrial beer and preference for drinking beer compared to other alcoholic beverages.

Both the hierarchical (agglomerative) and the non-hierarchical (k-means) techniques were used in order to explore the presence of "natural groups" within the sample. The k-means clustering based on the simple Euclidean Distance (i.e. the similarity measure) was then selected. The Beale test helped choosing the 5 clusters partition generated with the k-means command in SPSS (version 25)⁸.

⁵ Ramsey RESET (Regression Specification Error Test) is used for finding out the best functional form.

⁶ VIFs are estimates of how much multicollinearity increases with increasing variance of each estimated coefficient. The smallest value of VIF is one (absence of multicollinearity), while ten is the threshold over which multicollinearity affects the reliability of the estimates.

⁷ The estimates and tests are done with STATA 14.0.

⁸ The Beale test helps finding the best partition of the sample in terms of number of clusters. More in details, the test measures the reduction of variability within the groups and between groups as long as the group number increases.

4. Results

4.1 Description of the sample

A few socio-economic and demographic data helps to get the frame of the sample. Interviewees are mainly based in Central Italy (62.1%); less than one fifth (17.7%) is situated in Northern Regions, while 13.8% lives in Southern areas and 6.5% did not provide any answers. The interviewees who live down South (Island included) show an average purchase intention for craft beer that is slightly higher than the others (equal to 16.0 euro) (table 1). The average age of the sample is 32.4 years old with a very high share of people under thirty (58.7%) due to the high participation of students in the Survey. The share of males among the sample is 68%. It is, hence, evident that the sample cannot be considered as fully representative of the entire Italian population of beer consumers. However, as the group of consumers usually more interested in beer -and particularly crafts- consumption is that of young males; for the purposes of this analysis we argue that: a) a self-selection bias mechanism has been active in the decision to participate in the survey; b) the distortion of the sample can be regarded as providing a better focus on the target market.

Data on beer consumption in relation to gender reveal that men drink beer more frequently and in larger quantities: in fact, weekly consumption involve 61.9% of men and 42.9% of women and men are systematically more concentrated in larger consumption categories – as for per single drinking occasion- with respect to women. While the average expenditure for craft beers in the five rounds of the choice experiment are similar (respectively 15.1 and 15.4 euro).The nature of this target also emerges when looking at basic data of beer consumption in relation with age: older people (over the age of 46 years) prefer to consume beer exceptionally and the quantity of beer consumed is less than or equal to 0.33 l; while younger interviewees (15-25 years) say they consume it more frequently (on average once or twice a week) and the average quantity of beer consumed is usually equal to 0.5 l (due to space limits these data are not shown in the table).

A large share of interviewees (43.3%) prefers beer compared to other alcoholic beverages. Wine is ranked second with almost 20% of preferences and cocktails come third with 5.9%. It is also worthwhile to pinpoint that about one out of four interviewees did not show any strong preference and they rather enjoy variety.

A large share of interviewees (38%) declares to drink beer mainly during aperitifs and/or during the evening together with friends. One more 20% prefers drinking beer during fairs, shows and other social events; while another fifth of the sample tend to drink beer during meals, the last remaining 20% only drinks beer in weekends (Figure 1). Close to these aspects, the survey also reveals that 41% of participants, and particularly male (64%), has been at least once at beer events. More than 4/5 of them (86.9%) enjoy such events as they provide occasions for discovering and testing different craft varieties of high quality, together with other food items. Another 35% like these events because of direct contacts with producers and because of conferences/lessons about beer.

Table 1 Descriptive statistics for the variable used in the regression

Figure 1 Occasions for beer consumption

With respect to the places of purchase and consumption the survey reveals that: i) pubs are the most common places for both (66.9%) while discos and restaurants are less frequent (39.0% 32.3%, respectively) as in these places cocktails and wine are, respectively, preferred; ii) supermarkets are the most common retail format for purchasing beer (60%) while only 12% of interviewees say they buy beer in beer shops⁹. Table 1 shows that those who drink beer in pubs did express a higher expenditure intention for craft beer compared to those who drink it at the disco, at home, restaurant and in other contexts (average expenditure is, respectively: 16.0 14.9, 15.4, 14.8 and 14.1 euros)

One additional theme explored with the interview is consumers' knowledge about beers. This has been assessed by asking interviewees to list beer brands they could recall. The first evidence is that industrial brands are by far better known than craft trademarks: only 26% of the sample was able to cite at list one craft beer brand while 88% of interviewees cited one or more industrial trademarks.

With respect to packaging, bottled beers are preferred in 60.7% of cases, while draught beers are ranked first by 32.9% and other packaging are far less appreciated. With respect to beer origin, more than one half of the sample (about 58.7%) has no preference between national or

⁹ The sum is not one hundred because interviewees could indicate more than one places for both purchase and consumption.

foreign beers; almost one fourth (22.8%) prefers foreign beers while only 18.5% prefers the domestic ones.

Coming to intrinsic features, about one third (32.6%) of interviewees strongly prefer blonde beers, another 19.7% strongly prefer dark ones while the remaining half appreciate both kinds of beer. With respect to the production process, people in the sample have mixed feelings as 33% is more on crafts, 31% prefers industrial beers and the remaining third (36%) do not have any clear inclination (Figure 2). Among the features that most affect beer choice in general there are: sensory characteristics (31%), curiosity for trying new products (16%), brand (14%), desire of cooling down (13%), friends’ advice (13%). In line with Kleban and Nickerson (2012), our results show that with respect to craft beer as opposed to industrial ones the choice is mainly based on taste (36.8%); on the supposed better quality of the raw materials (28%); and, to a lesser extent, because crafts are neither filtered nor pasteurized (10%).

Figure 2 Some consumer preference in the beer market

The choice experiment (table 2) reveals that the WTB for the two kinds of beer is largely different; in particular, craft is chosen on average 3.5 times over the 5 rounds, while the industrial product was selected only 1.1 times over the 5 rounds and the no-choice option was selected only the remaining 0.4 over 5 times. Differently, the WTP is only slightly higher for the first option: 4.3 and 4.1 euros per 0.33 l, respectively¹⁰.

Table 2 Results of the choice experiment

4.2Results of the OLS regression

The R2 of the OLS estimation is 0.301, a value in line with the literature for analysis on beer and its characteristics where the range of variation for R2 is 0.117/0.218 - 0.28/0.32 (Smith et al., 2016; Olper et al., 2012). The Ramsey RESET test has analyzed alternative transformations of the dependent variable (e.g. log, inverse square root) revealing that the log-linear specification performs better than other functional forms so that it has been chosen for estimating equation (1). The VIF test assessed that there is no multicollinearity among the explanatory variables included in the presented version of the model.

¹⁰ Our sample does not allow analyzing differences in the WTP on a geographic base as it is done in Schamel (2009).

Table 3 shows the results of the estimates. Starting from *Be*, the coefficient indicates that a general preference for drinking beer as opposed to other alcoholic beverages is associated with a positive elasticity of the expenditure for craft beer of 12.3%.

With respect to beer origin (*Or*), results indicate that a preference for domestic beers is associated with a negative attitude towards crafts with respect to those who do not care about origin (total expenditure for crafts decreases by 16.9%), while preference for imported beers does not impact on expenditure. This result may be explained with a general more curious attitude of consumers open to different product origins, while consumers preferring domestic varieties may be more bind to habits and less inclined to spend for crafts that are less standardized and relatively newer and still less renown in the Italian market.

A neat preference for blond beers (*Col*) reduces buying intentions and WTP for crafts (-11.1%). This can be explained by the turbidity of these beers that generally appears darker than the industrial ones even when they are classified as blonds.

Also the frequency of beer consumption (*FrCons*) has a significant impact of the expenditure for crafts; in details, a monthly consumption pattern is associated to lower expenditure as compared to a weekly frequency (+17.4%). The same holds for lower frequencies of consumption (occasional and irregular) (respectively, +18.7% and +26.9%). It seems like if, on the one hand, frequent (i.e. weekly) consumption is associated with a better knowledge and deeper appreciation of crafts that, in turn, increase the value of expenditure. On the other hand, the level of expenditure is also positively associated with less frequent consumption patterns, supposedly because drinking beer is in this case confined to special occasions that raises WTP for the, relatively rare, individual drinking occasion.

Table 1 Results of the regression model

Coherently with what could be expected, those who use to drink beer in pubs (*PCons*) -that are typically places devoted to beer and where experts go to find high quality and variety- are more inclined to buy and spend for crafts (+13.3%). An opposite result is found for those who use to drink beer at parties and/or in discotheques (*DCons*) (-14.4%), situations where the quality of the beer is less important (while, usually, the alcohol content is, in itself, more relevant).

Coherently, the knowledge of at least one craft brand (*KBCr*) has a positive and quite high impact on expenditure: 17.5%, revealing the significant effect of being involved with this

market segment. Furthermore, interviewees’ evaluation of craft beers with respect to the industrial ones (*CvsI*) impact on their expenditure: those who prefer crafts are willing to spend more with respect to those that have a less clear preference and to those who prefer the industrial version (+19.9%, -21.7%, -28%).

More in details, enjoying the taste of craft beer (*PT*) associates with a positive expenditure elasticity (+9.5%) while appreciating the absence of microfiltration and pasteurization (*NoF&P*) does not have a significant coefficient.

Finally, on the same streamline, consuming mainly craft beer (*KBCons*) increases (+ 14.6%) the willingness to spend for this product; while consuming altogether any type of beer (artisanal or industrial) does not affect the elasticity of spending on craft beer.

None of the personal features collected with the survey showed significant correlation with expenditure for craft beer. This is probably due to limited variability of the sample.

4.3 Results of the Cluster Analysis

The CA helped in depicting 5 different consumers’ profiles. CA results are condensed in Tables 4-6 and in Figure 3. In particular, table 4 shows the role of each variable in obtaining the partition. The most influential ones are (in order of importance): i) the frequency of consumption of artisanal beers in relation to the industrial alternative; ii) the preference for consuming beer vs other alcoholic beverages; iii) the WTB for artisanal beer in the choice experiment; iv) the frequency of beer consumption; v) the WTP for artisanal beer in the choice experiment; vi) the inclination for artisanal vs industrial beers. All the other variables have a smaller influence on the CA results.

Table 5 shows the distances between the cluster centers; in other words, this is a measure of the overall similarity between pairs of clusters. The first evidence is that clusters II and V are quite similar compared to the other pairs, followed by clusters II and IV. Hence, also clusters IV and V are quite close, even if to a lesser extent. On the other hand, clusters I and III share some relevant features, while cluster number I is pretty distant from clusters IV and V.

Table 2 The ANOVA Statistics for the selected partition in 5 Clusters**Table 3 Distance between final cluster centers**

Table 6 and Figure 3 present cluster features and allow easy profiling and comparisons. The first overall evidence is that going from cluster n. I to cluster n. V, there is a descending gradient of involvement with drinking beer. Looking more in details at the profile of each cluster adds interesting insights.

The first group highlighted by the CA can be defined as “*Craft-beer enthusiast experts*” (30.0% of the sample¹¹). These are frequent consumers, definitely preferring beers to any other alcoholics (86% of people in the group). Furthermore, they find craft beers much better than the industrial ones (89.7%) and, coherently, they usually drink the first (84.1%). Their WTB and WTP are both higher than the ones of any other group in the sample; in particular, WTB is 4.46 times over 5 rounds and WTP is 4.41 Euros. These consumers have a better knowledge of craft-beer brands compared to the other interviewees and often go to pubs and to beer shops while they tend not to go to beer events as compared to people in all the other groups. This result suggests that beer events are more attractive for less expert people who wish to increase their knowledge and awareness about beers.

Table 4 Final Clusters**Figure 3 Clusters Profiles**

The second profile accounts for 23.0% of the sample and corresponds to consumers’ that drink beer and are curious to try different types of beer even if they usually drink also other alcoholic beverages. This group has been labelled as “*Curious/Eclectic consumers*”. These consumers do share some features with the previous ones, however their positive bias towards beer in general - and craft beer in particular - is by far less strong and their consumption, in terms of frequency and quantity, is reduced. Coherently, they tend not to drink crafts, they go less frequently to pubs and do not by beer in beer shops. Lastly, their knowledge about artisanal beers is more limited.

¹¹ It is here worth to recall that the sample is not well representative of the entire Italian population of beer consumers especially in terms of geographic distribution. Hence, the number of people falling in each group can only be very roughly interpreted as an indication of the size of the corresponding market target.

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The third group has been labelled “*Sophisticated consumers*” and accounts for only 12.6% of the sample. It gathers consumers who, definitely, prefer alcoholic beverages different than beer. Coherently, they tend to drink smaller quantities of beer. However, when drinking it, they appreciate more the crafts (75.6%) even if they do not think this is a priori superior than industrial one. Even if they are not beer lovers, these persons enjoy some expertise in the field and go to pubs and beer shops even more than people in the “*Curious/Eclectic consumers*” group. In the choice experiment, on average, they choose craft beers 3.9 times over 5 rounds; a frequency that comes only after that of the “craft-beer enthusiast experts”. People in this group are the eldest in the sample, with an average of 37.2 years of age. Furthermore, the cluster has the relatively highest share of people living in the South (24.4%).

The k-mean CA scouts a fourth group that we call “*craft-beer sceptic consumers*” (16.0% of the sample, about 80% of which are men). They are only moderately interested in craft beer, despite the fact that, more in general, they do drink and appreciate beers even if their alcohol consumption patterns significantly include other kind of beverages. The outcome of the buying simulation experiment for this group of people shows the lowest levels of WTB and WTP for craft beers, respectively 1.23 times over 5 rounds and 3.91 euro over 0.33 l. In the survey, only few of them were able to recall only at least one brand of craft beer; they go less to pubs and very seldom buy at beer shops (5.3% buy beer to the beer shops).

Last, there is the “*Beers? No, thanks*” group that accounts for 18.3% of the sample. More than half of these people are women (53.8%). They are poorly attracted by beers and rather prefer other alcoholic beverages, they drink smaller quantities each time (0.36 l/time) and in fewer occasions as compared to all the other interviewees. Furthermore, they are not inclined to crafts nor they are interested in them: on average, they are not able to recall any brand of crafts (only the 4.6% does known one or more brands of craft beer). When they happen to drink beer, it is usually industrial. This profile is also confirmed by the results of the buying simulation were their choice of the craft alternative is quite low even if not as low as for the skeptic group of consumers. These people do not usually to go to pub or to beer shops, just as the “*Craft-beer sceptic consumers*”. Surprisingly, people in the group enjoy fairs and other public events linked to drinking beers much more than any other group in the sample (67.7%). This may be explained by the social nature of these events and by the possibility to find also other products, thus confirming the high potential of such events as ways for enlarging beer knowledge and experience to the wider public.

5. Concluding Remarks

The paper explores the Italian beer market as it has been portrayed by a consumer survey that includes a questionnaire and a choice experiment. A description of data collected, the estimation of a regression model and a cluster analysis offer some not-trivial insights that contribute to a better understanding on different aspects of the Italian craft beer market, including consumption habits, consumer's knowledge of the product, their interest and attitude.

The first general result confirms that beer increasingly meets the taste of Italian consumers who were, traditionally, more on wine. Beer is appreciated by a variety of people: both men and women like beer, even if our results show that gender differences are significant; looking at different ages, we find young and less young people among beer lovers even if the youngsters are more present in this market. We also found people interested in craft beers among both students and workers and in different areas of the country. However, personal traits of interviewees do not affect their WTB and WTP for crafts. While these are influenced by a number of other variables among which it is worth to recall their knowledge of the product, their consumption habits such as frequency and places/situations for drinking beer, their appreciation of the product. These aspects also frame the different consumers' profiles emerged with the CA.

Consumers drinking beer like variety so that they often enjoy also drinking other alcoholic beverages. Hence, the competition in the marketplace is not only between different variety of beer or between craft and industrial ones but embraces many different kinds of beverages that are perceived as close substitutes. Within the beer market, craft beers are increasingly attractive thanks to the high quality of raw materials, their taste and the sense of "naturalness and genuineness" that they convey. The choice experiment reveals that consumers are willing to buy and to spend more for craft beers than for the industrial substitutes. This holds for all groups in the sample even if in different degrees in relation to the extent to which the craft product is known and appreciated.

Furthermore, our results confirm that there is room for further expanding the market towards consumers that are curious about novelties and new food experiences. In fact, interestingly, also among those who are less involved with beer, almost everybody does not disdain drinking a mug of craft beer from time to time. These consumers that are new in the beer market are mostly attracted by fairs and special events that offer the possibility to try different kind of crafts.

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Differently, expert habitual craft consumers prefer different market channels and consumption occasions, among which beer shops and pubs are the preferred ones.

One last piece of evidence provided by the analysis is worth pointing out: although craft beers raise a wide interest and it is much appreciated, consumers’ knowledge about craft brands is much more limited compared to industrial trademarks. This is quite an expected result as craft beer is, by definition, produced in small breweries while industrial beer is produced in very large and renown companies, however implications of such a difference shall be underlined. In fact, in a context of demand globalization, the difficulty in building-up a wide reputation may act as a constraint also for brand attractiveness in the local markets. This is particularly true in the light of the major role played by brand, at product and firm level, in orienting consumers’ choice (Kleban and Nickerson, 2012). In this light, the major role played by social media (Barlow et al., 2018; Clemons et al., 2006) in disseminating information of the craft beer market and the relative low cost associated with innovative marketing strategies (e.g. the so-called guerrilla marketing) based on social networks, trace the line of an at-hand solution for small beer producers (Bresciani, 2017; Canan et al., 2010; Dentoni, 2010).

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Table 1 Descriptive statistics for the variable used in the regression

Specification of the variable	Variables	Percentage of cases	average expense for craft beer (euro)
Prefer beer to other alcoholic beverages (<i>Be</i>)	Prefer Beer	43,3	17,0
Preference of production origin (<i>Or</i>)	National	18,5	13,4
	Foreign	22,8	16,1
	no preference	58,7	15,4
Preference of color (<i>Col</i>)	Blond	32,6	13,3
	Dark	19,7	17,7
	no preference	48,6	15,5
Frequency of consumption of beer (<i>FrCons</i>)	weekly	55,9	15,8
	monthly	10,7	12,7
	irregular	19,7	15,0
	seasonally	3,9	16,1
	occasional/never	9,8	14,5
Consumption at home (<i>Hcons</i>)	Home	50,0	15,4
Consumption at the disco (<i>Dcons</i>)	Party/Disco	39,0	14,9
Consumption at the pub (<i>Pcons</i>)	Pub	66,9	16,0
Consumption at the restaurant (<i>Rcons</i>)	Restaurant	32,3	14,8
Consumption in other public places (<i>B&Scons</i>)	Bar and stadium	35,1	14,1
Knowledge of craft beer brands (<i>KBCr</i>)	Know Craft	26,1	18,0
Judging craft beers better than industrial beers (<i>CvsI</i>)	always	14,6	20,1
	usually	47,5	16,6
	depends	27,8	12,4
	never	4,8	7,3
	don't know	5,3	10,7
Preference craft beer because not pasteurized and microfiltered (<i>NoF&P</i>)	No Filter&Pasteur	10,4	16,1
Preference craft beer because it has a pleasant taste (<i>PT</i>)	Pleasant Taste	36,8	16,3
Kind of beer mainly consumed (<i>KBCons</i>)	Craft	33,1	18,8
	Industrial	30,9	12,3
	no preference	36,0	14,4
Gender (<i>G</i>)	Man	68,0	15,1
	Woman	32,0	15,4
Employment (<i>E</i>)	University student	36,5	15,9
	Professional/teacher	13,2	15,8
	Other	50,3	14,4
Residence (<i>R</i>)	Northern	17,7	15,4
	Central	62,1	15,0
	Southern/Island	13,8	16,0
	Unknown place	6,5	14,3

Source: Authors' elaborations on Survey data

Table 2 Results of the choice experiment

	Industrial beer	Craft beer	no choice
average number of choice	1.1	3.5	0.4
average paid price (euros)	4.1	4.3	-
average for craft beer spending (euro)	4.6	15.2	-

Source: Authors’ elaborations on Survey data

Table 3 Results of the regression model

Specification of the variable	Variables	Coeff.	Std.Err.
Prefer beer to other alcoholic beverages (<i>Be</i>)	Prefer Beer	0.123 **	0,058
Preference of production origin (<i>Or</i>)	National	-0.169 **	0,078
	Foreign	0,019	0,061
Preference of color (<i>Col</i>)	Blond	-0.111 ****	0,060
	Dark	-0,011	0,064
Frequency of consumption of beer (<i>FrCons</i>)	weekly	0.174 ****	0,092
	irregular	0.187 ****	0,099
	seasonally	0,234	0,169
	occasional/never	0.269 **	0,120
Consumption at home (<i>Hcons</i>)	Home	0,074	0,053
Consumption at the disco (<i>Dcons</i>)	Party/Disco	-0.144 **	0,060
Consumption at the pub (<i>Pcons</i>)	Pub	0.133 **	0,066
Consumption at the restaurant (<i>Rcons</i>)	Reastaurant	0,025	0,058
Consumption in other public places (<i>B&Scons</i>)	Bar and Stadium	-0,043	0,062
Knowledge of craft beer brands (<i>KBCr</i>)	Know Craft	0.175 *	0,068
Judging craft beers better than industrial beers (<i>CvsI</i>)	always	0.199 *	0,063
	depends	-0.217 *	0,069
	never	-0.280 ****	0,165
	don't know	-0,425	0,163
Preference craft beer because not pasteurized and microfiltered (<i>NoF&P</i>)	No Filter&Pasteaur	-0,062	0,108
Preference craft beer because it has a pleasant taste (<i>PT</i>)	Pleasant Taste	0.095 ****	0,053
Kind of beer mainly consumed (<i>KBCons</i>)	Craft	0.146 ****	0,086
	no preference	0,128	0,074
Gender (<i>G</i>)	Woman	0,034	0,059
Empoyement (<i>E</i>)	Student	0,019	0,055
	Professional/teacher	0,010	0,074
Residence (<i>R</i>)	Northern	-0,065	0,072
	Southern/Island	-0,031	0,090
	Unknown place	-0,015	0,118
constant	_cons	2,323	0,126
Value	R2	0,301	
Number	Obs	356	

*, **, **** significance respectively lower than 1%, 5%, 10%.

Source: Authors' elaboration on Survey data

Table 4 The ANOVA Statistics for the selected partition in 5 Clusters

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Drink more craft beer than industrial	115808.789	4	430.378	351	269.086	0.000
Beer preferred to other alcoholic	45869.580	4	403.996	351	113.540	0.000
WTB craft beer (average n° of choices/5	40035.929	4	444.970	351	89.974	0.000
Weekly consumption of beer	27264.552	4	392.234	351	69.511	0.000
WTP craft beer (average values in	7804.522	4	177.825	351	43.889	0.000
Craft beer superior tha industrial	17323.336	4	401.774	351	43.117	0.000
Buying beer at beer shop	2.264	4	0.148	351	15.322	0.000
>= 1 brands of craft beer known	2.544	4	0.167	351	15.254	0.000
Drinking quantity (l/time)	5967.070	4	611.333	351	9.761	0.000
Going to beer events	2.034	4	0.222	351	9.154	0.000
Drinking beer at the pub	0.864	4	0.215	351	4.022	0.003

Source: Authors' elaboration on Survey data

Table 5 Distance between final cluster centers

Cluster	I	II	III	IV	V
I		86.287	68.627	100.709	116.271
II	86.287		85.108	68.918	56.901
III	68.627	85.108		83.292	83.755
IV	100.709	68.918	83.292		77.008
V	116.271	56.901	83.755	77.008	

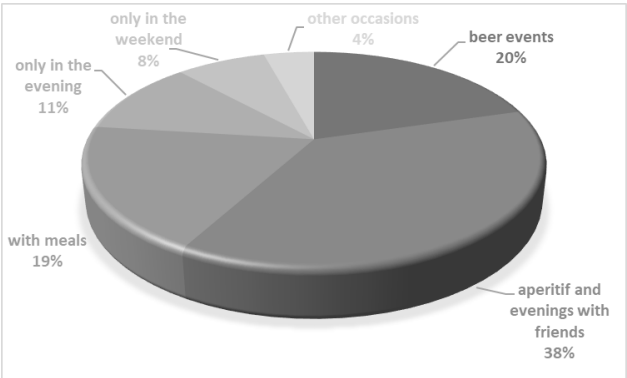
Source: Authors' elaboration on Survey data

Table 6 Final Clusters

variables/clusters	Craft-beer enthusiast experts	Curious/ Eclectic consumers	Sophisticate d consumers	Craft-beer sceptic consumers	Beers? No Thanks
	I	II	III	IV	V
Beer preferred to other alcoholic beverages	86.0	50.0	0.0	28.1	7.7
Weekly consumption of beer	43.9	15.9	15.6	22.8	0.0
Drinking quantity (l/time)	0.56	0.48	0.50	0.53	0.36
Drinking beer at the pub	79.4	62.2	73.3	59.6	53.8
Buying beer at beer shop	44.9	9.8	24.4	5.3	12.3
Going to beer events	23.4	45.1	40.0	38.6	67.7
>= 1 brands of craft beer known	50.5	20.7	20.0	17.5	4.6
Craft beer superior tha industrial	89.7	67.1	75.6	14.0	43.1
Drink more craft beer than industrial	84.1	0.0	60.0	1.8	0.0
WTB craft beer (average n° of choices/5 rounds)	4.46	3.62	3.87	1.23	3.38
WTP craft beer (average values in eur/0.33 l)	4.41	4.32	4.37	3.91	4.24

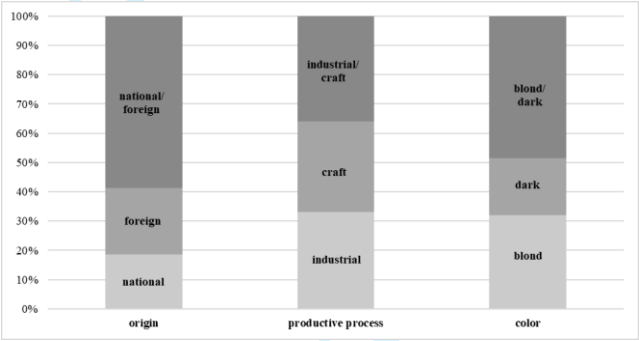
Source: Authors' elaboration on Survey data

Figure 1 Occasions for beer consumption



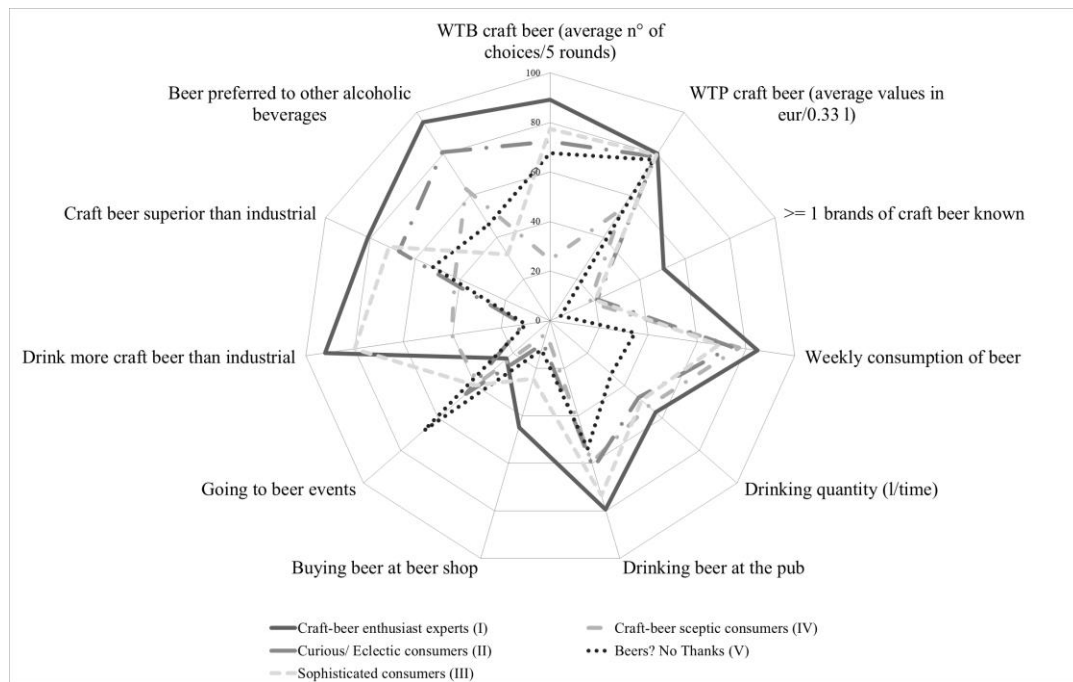
Source: Authors’ elaboration on Survey data

Figure 2 Some consumer preference in the beer market



Source: Authors’ elaborations on Survey data

Figure 3 Clusters Profiles



Source: Authors' elaboration on Survey data