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Uncovering patterns of consumers' interest for beer: A case study with craft beers

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ABSTRACT

To uncover patterns of consumer interest in craft beers, the authors explored the quality perception of craft beers in a panel of industrial mass-marketed beer drinkers ($n = 150$) and examined the differences in interest for this beer segment between men and women. The authors adopted a conjoint rating experiment in which the respondents were given forty-nine beer profiles to evaluate and were asked to score the degree of interest in each profile on a 9-point scale. Each profile was described on eight attributes (type of brewery, brewing technology, characterizing raw materials, brewhouse equipment, location of the brewery, type of container, retail price, where to buy) varied at different levels. Results showed that Italian consumers placed greatest importance on type of container (30.49%) and on brewing technology (17.64%). Characterizing raw materials (13.44%) and type of brewery (12.64) rank 3 and 4 and were placed in the same band some way below brewing technology. Retail price (9.87%) and where to buy (8.73%) were of far less importance. The least importance of all was attached to brewhouse equipment (4.44%) and to location of the brewery (2.75%). As far as utility values are concerned, the factor level glass bottle + crown cap and the factor level microfiltration are the utilities that most increased the interest of consumers. They were followed by the factor level local grains, stainless steel keg and monastery. In contrast, the factor level PET Keg, aluminum can and large scale corporate brewery showed the greatest negative impact on interest. Men and women shared similar patterns of interest. However, men placed more importance than women on retail price, location of the brewery and where to buy. Women attached more importance than men on type of container, brewing technology and type of brewer. These findings are relevant to understanding consumers'behavior in the beer market and to translating consumer needs, wants and expectations into manufacturing designed to produce the best possible, cost-competitive, widely accepted product in a relatively short period.

1. Introduction

In the last decades, the beer industry has been affected by a phenomenon called the craft beer renaissance, whose origin dates back in the 1970s in the United States (Fastigi, Esposti, Orazi, & Viganò, 2015). From the mid of the 1990s craft beers started to spread in the Italian market, mostly in the Northern regions, and from the mid of 2000s the number of microbreweries and the popularity of craft beers boomed across the country, moving from around forty brewers in 2005 to more than seven hundred and fifty today (Assobirra, 2014; Fastigi et al., 2015).

The exponential growth experienced by craft beer benefited from the structure of the actual beer industry whose increasing concentration of generalistic brewers producing a few styles readily available to consumers enhanced the chances of specialist organizations such as craft breweries to survive and be a high viable and sustainable business strategy able to capitalize on a market niche that macrobrewers were not seeking to address. In particular, the surge in popularity of this beer segment benefited from innovation, creativity, typicality, and authenticity that typify craft beer as an experience delivering drink that offers pleasure, enjoyment, sense of identity and belonging, self-fulfillment, social recognition, and sustainability (Gómez-Corona, Escalona-Buendía, García, Chollet, & Valentin, 2016; Kraftchick, Byrd, Canziani, & Gladwell, 2014; McLaughlin, Reid, & Moore, 2014, Aquilani, Laureti, Poponi, & Secondi, 2015; Berkhout et al., 2013). These are product values that create differentiation in the actual beer market in which consumers drink less beer but are demanding a more boutique, unique, and premium product and indulge themselves more with special and pricier beers since they are getting more affluent, more adventurous and thus more willing to experience new flavors and textures than ever (Berkhout et al., 2013; Carroll & Swaminathan, 2000; Donadini et al., 2016).

This steady gain in market share of craft beer has been fueled primarily by industrial mass marketed lager drinkers but has been

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confined primarily to a minority of highly involved consumers for whom the relatively limited distributions of these beers and the effects of reference price are not a big concern (Datamonitor, 2010; Datamonitor, 2011; Giacalone, 2013). Actually, the craft brewing sector in Italy is still a relatively small economic niche dominated by small breweries with an average production of approximately 600 hectoliters (Ravelli & Pedrini, 2015) for a total of approximately 320,000 hectolitres in 2013, equal to 2.4% of the total national supply (Assobirra, 2014). Global drinks analysts and economic commenters believe that CB growth could be favored and further growth accelerated only if brewers are able to attract the majority of industrial beer consumers who may be interested in craft beers but has yet to explore the craft beer world. A balance between innovation and adherence to expectations could be the key to increasing acceptance since consumers are generally suspicious about foods or beverages that are too novel or discontinuous compared to what they are expecting and may or may not be willing to embrace the use of new products for these reasons (Costa & Jongen, 2006; Giacalone, 2013; Van Trijp & Van Kleef, 2008).

As a result of the diffusion of craft beers, the product diversity in the Italian beer market has remarkably increased in terms of flavors and textures[1] in the last years due brewers' mastery to vary the quantity and variety of different hops, to brew local and heirloom grains, to exploit the potential of unconventional starch-rich ingredients, to confer a touch of uniqueness by adding local fruit, herbs, spices and vegetables that are at the heart of the local gastronomic tradition, and, last but not least, to elevate brewing technology through the reinterpretation of ancient styles (Savastano, 2011, Manzi, 2012). For mainstream consumers who usually drink mass-produced industrial beers unconventional flavors of CB could be too big a deviation from their sensory expectations to fully appreciate craft products. In addition, CB is brewed from a range of unconventional ingredients by using alternative methods to process ingredients and offer unusual packaging solutions and design (Fastigi et al., 2015; Hede & Watne, 2013; Kleban & Nickerson, 2011; Kleban & Nickerson, 2012; Reid, McLaughlin, & Moore, 2014; Schnell & Reese, 2003; Schnell & Reese, 2014) and may be penalized by mainstream consumers for being too innovative. This is of concern to brewers because food preference and choice is influenced by top down processes such as expectations generated from mental representation of the product and although consumers value novelty or newness in food and beverages, and particularly in a category like craft beers, past research suggests that consumers tend to prefer products that deliver only moderate level of novelty (Köster & Mojet, 2007a; Köster & Mojet, 2007b; Van Trijp & Van Kleef, 2008) since food choices tend to be stable over time. Especially for new products which have been bought for the first time and where the formation of expectations at the point of sale cannot be based on previous own experience, whether or not expectations are confirmed is a crucial point for whether the product will be appreciate or not (Grunert, 2005).

Since at the time of writing, a very few exploratory studies have been carried out in Europe on CB (Aquilani et al., 2015), it is informative to study patterns of consumers' interest in this market segment. The identification of specific product quality attributes for which the consumers or one or more segments in a target population reveal a particular sensitivity and interest is paramount to translate consumer needs, wants and expectations into manufacturing designed to produce the best possible, cost-competitive and widely-accepted product in a relatively short period. The results of this analysis may pave the way to craft breweries to introduce their product to more beer drinkers and to increase sales and market share extending opportunities to appeal to a wider market. Consumers are central to this process and including the voice of consumers in brewing new beers, as a reference before final design decisions are taken, is extremely valuable since this approach aids ensuring design directions are on target (Grunert et al., 2008; Jaeger & MacFie, 2010; Sparke & Menrad, 2011).

Many methods and techniques are available to facilitate the understanding of patterns of consumers' preference for new products (Moskowitz, Porretta, & Silcher, 2005). Within those highly actionable for this purpose, Conjoint Analysis (CA) is a valuable practical statistical-based market technique to answer cognitive problems in product research for its ability to enable researchers to understand how consumers' demands translate into the physical domain of product characteristics (Green & Srinivasan, 1978). Through the analysis of individual consumer data, CA measures the importance individual consumers attribute to various product characteristics and estimates the utility of the various levels these attributes can assume. This empowers the researchers to uncover consumer patterns of response to product features and to estimate the impact of each level of the constituent attributes in generating interest in a given product. In this way, the researchers learn what is important in consumers' view, whether there are organizing principles regarding consumers' perceptions and how to create better concept through optimal combinations of attributes.

The main aim of this study was to extend the knowledge of patterns of consumers' preference in the beer market by focusing on CB. Data for this study has been collected in Italy from December 2015 to March 2016 and were sourced from a sample of mainstream beer consumers representing different age classes, genders, and regions of origin. The consumers enrolled in this study were asked to score a set of CB profiles specified on different product attributes and their associated levels on a 9-point scale of interest and Conjoint Analysis was the technique used to predict patterns of consumers' preference. This technique offers two information sets that help to quantify the attitude of the consumers about CB say the relative importance of product characteristics under study and the utility values placed by the consumers on the levels taken by these attributes. Results are presented for the whole panel. In addition, demographic segmentation according to gender was conducted to help the brewing industry target its consumers more accurately and categorize specific men and women needs. The brewing industry has traditionally targeted men and beer can be considered a rather obvious example of a product that has had a gender segmented marketing strategy. However in the actual beer market a new field of opportunities has been creating by changes in society that made gender roles less heterogeneous (Inglehart & Norris, 2003; Wolin, 2003) and products that used to be mainly for one of the gender relevant to both genders. Women's share of beer consumption is growing especially now when the stereotypical difference in gender behavior is decreasing and the change in beer's image make beer and women not such an unusual combination anymore (Aronsson & Oderich-Linke, 2013; Assobirra, 2014). In Italy for example, six women out of 10 drink beer, are familiar with it and appreciate it compared to 25% in the 1980s (Assobirra, 2014) because beer is a natural beverage, it is less alcoholic than wine and it is convenient (Assobirra, 2012). In addition, some of the styles that have gained the most ground over the past years have proven to be more attractive to females than in the past. However there is still not much focus on women which underlines the huge opportunity that remains unlocked for brewers since the brewing industry have not yet managed to find a way to take a complete advantage of this new group of potential customers .

Since at the time of conducting this study no legal definition of craft beer had been released in Italy, yet a huge debate on this topic was ongoing in the two Houses of the Parliament, the authors wanted to

[1] The most part of the beer available on the Italian market comprises relatively homogeneous products that are hardly differentiated by consumers in taste tests (Scherer, 1996). Previous research on sensory qualities of mass-produced industrial beers of the Italian market revealed that descriptors commonly associated with the most sold beers of the market (e.g. pale lagers brewed from light-kilned malts and from a huge fraction of tasteless adjuncts such as maize) are usually light bodied, light carbonated and vaguely sweet. Overall, flavour intensity is generally low and these beers are also described as being low in fruitiness, low in maltiness and slightly bitter (Donadini & Fumi, 2010). Other authors confirmed that pale lagers carry a mild overall flavour (ASAP, 2003; Daems & Delvaux, 1997; Gains & Thomson, 1990; Mejlholm & Martens, 2006). As a rule of thumb, CB are reported to be darker, stronger and more flavorful than the beers of mass producers (Tremblay & Tremblay, 2005).