



NAMUR 2009

Consumers' Preferences, Purchasing Decisions and Product Information: Evidence from a Beer Tasting Experiment

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Market structure of the brewing industry is oligopolistic in most the industrialized countries. Non-price competition among firms in oligopolistic industries has been widely analyzed (Sutton, 1991; Roberts and Samuelson, 1988). Non-price competition is typical among beer-brewers. In fact, even if price is a relevant variable in consumers' purchase decision of beer, other factors play a key role: advertising, new product introduction, packaging, are strategic decisions through which firms aim at persuading consumers to purchase their brands. Image and information of beers represent the first contact between the good and the consumer and are likely to influence consumers' judgment, preferences and intent to buy.

The seminal research in this field by Allison and Uhl (1964) claimed that consumers are unable to recognize their preferred brand in a blind taste and that the characteristics of different beers, as perceived by consumers, are related more to firms' marketing information (extrinsic information) rather than the perceived physical product differences (intrinsic information). Caporale and Monteleone (2004) illustrate how information regarding manufacturing technology is able of altering consumers' liking of beer. Lee *et al.* (2006) show the effect of extrinsic information on beer quality perception in an experiment.

The aim of this work is to experimentally investigate the relation between the exposition to intrinsic and extrinsic information and consumers' evaluations in beer consumption. Can extrinsic information influence consumers' evaluations, preferences and willingness to pay for beer? And if so, at which extent? Are consumers' evaluations and purchasing decisions more influenced by intrinsic product quality or by extrinsic characteristics of the product like packaging, image, reputation? Does the order in which intrinsic and extrinsic information are released to consumers matter for consumers' evaluations and purchasing decisions?

This paper aims at answering these questions. We design and run an experiment in which consumers are asked to provide evaluations and willingness to pay about beers under different conditions concerning the product information they are exposed. In order to guarantee that the stated evaluations and willingness to pay closely reflect the true consumers preferences, we implement the incentive-compatible mechanism proposed by Combris (2008) in an experiment on wine-tasting, according to which consumers actually purchase their most preferred beer using an amount of money awarded at the beginning of the experiment. Subjects in the experiment are recruited among the undergraduate students at LIUC University Business School in Castellanza and, previous to the experiment, are asked a questionnaire about their habits and preferences on different typologies (e.g. lager, ale, stout, Belgian), brands and characteristics of beers. We implement two main experimental treatments (*bt-ar*; *bt-pk*), and two additional variants of the same treatments as robustness check (*ar-bt*; *pk-bt*; *bt-far*; *bt-fpk*). In all the treatments, the experiment is composed by three stages.

In the first stage of the main treatments (*bt-ar*; *bt-pk*), subjects participate to a blind tasting (*bt*) of five different beers of the most preferred typology, having the same colour and transparency, and similar but not identical intrinsic characteristic, served within the same conditions (all poured from 0.33 litre bottles in identical glasses at same temperature). After blind tasting, subjects are asked to describe the sensations, aromas and characteristics perceived in each beer using a simplified variant of a sensorial grid adopted by beer experts and brewers; to state their evaluations of each beer over a 0-100 scale; and to express the maximum amount of money (in euro) they are willing to pay for a bottle of each beer. Finally, based on the declared willingness to pay, subjects are invited to make their purchasing decision with the money given at the beginning of the experiment.

At the second stage of the main treatments (*bt-ar*; *bt-pk*), subjects are tasting exactly the same five beers, presented in randomly modified positions (from left to right) and asked to repeat the same exercise as in the first stage. The subjects, however, are presented different visual information concerning the bottles of beer. In particular, in treatment *bt-ar*, subjects are presented each of the five beers altogether with a bottle with a label representing, in a stylized way, one of the aromas or sensations which may be actually perceived in the beer while tasting. On the other hand, in treatment *bt-pk*, subjects are presented each of the five beers altogether with a bottle with a label representing, in a stylized way, all the salient features, with the only exception of the brand, of the external packaging of the actual bottles: colours, decorative shapes, symbols and so on.

At the third and final stage of the experiment, subjects are asked whether they believe they have been presented the same beers in the two stages and, if so, whether they can reckon which ones. Finally, subjects are told that their stated preferred beer is actually among the ones just tasted, and are asked whether they can identify it.

As robustness check, we also implement two variants of the treatments in which subjects go through an inverse sequence of stages in the experiment, being first presented the stage with the visual information and then the blind tasting (*ar-bt*; *pk-bt*); and two variants in which the stylized visual information presented to the subjects are not corresponding to the aromas or the packaging features of the actual bottles but refer to other beers, instead (*bt-far*; *bt-fpk*).

On the one hand, a study about these factors might reveal to be informative for firms in order to implement effective marketing and differentiation strategies. On the other hand, this study may contribute in understanding the purchase decision process of consumers of dairy goods and food products.