Brand *Coopetition* with Geographical Indications: Which Information Does Lead to Brand Differentiation?

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1. Introduction

Although Geographical Indications (GIs) have a long history, their diffusion in global food markets has increased dramatically in the latest 25 years (Rangnekar, 2004; Profeta *et al*., 2009; Blakeney, 2009). For producers, GIs represent opportunities to compete locally, nationally and globally (Bonnet and Simioni, 2001; Malorgio *et al.,* 2007; Van Ittersum *et al.*, 2007). Yet to seize the opportunity, GI food producers face two challenges: 1) *collectively*, producers have to provide appropriate information about their GI to consumers to make them perceive a superior value vis-à-vis competing GIs (Bureau and Valceschini, 2003); 2) *individually*, producers have to provide appropriate brand information which differentiates their own brand (Aaker, 1991) from the other individual producers' brands within the GI region. The underlying problem is that producers cannot only cooperate with neighbors to jointly strengthen their collective equity, but they also need to differentiate

Abstract

Farmers and managers marketing food products with Geographical Indications (GIs) have to play a brand coopetition *game: they cooperate with each other to develop a collective GI equity, yet they compete to build their individual brand and to establish market channels. Based on an online experiment on olive oil from "Riviera Ligure" (a region in North-Western Italy) through a convenient sample, this study tests a path model to 1) analyze which types and which sources of GI information differentiate an individual brand with GI from the others; and 2) explore which psychological and demographic variables play a role on the impact of GI information on brand differentiation. The tested path model combines elements of economic consumer theory (Lancaster, 1966) and theory of attitude formation (Fishbein, 1967; Fishbein and Ajzen, 1975). Results cannot be generalized outside the observed product and sample, yet the method is applicable by the GI food industry as a consumer research tool to set up marketing communication strategies.*

Keywords: *Geographical Indications (GIs), consumer behavior, willingness-to-pay (WTP), brand differentiation, path analysis, olive oil, food products, marketing.*

Résumé

Les producteurs et les distributeurs qui commercialisent les produits alimentaires sous signe de qualité IG doivent prendre part à un jeu de coopétition de la marque : *ils collaborent les uns avec les autres pour parvenir à une équité collective de l'IG, mais en même temps, ils sont en concurrence les uns avec les autres pour construire leur propre marque et créer leurs circuits commerciaux. Dans cette étude, nous nous sommes appuyés sur une expérience en ligne autour d'une huile d'olive provenant de la région «Riviera Ligure» (dans le nord-ouest de l'Italie), en utilisant un échantillon approprié, pour évaluer un modèle des chemins. L'objectif était d'analyser les types et les sources d'information relative à l'IG qui différencient une marque individuelle par rapport aux autres IG et d'explorer les variables psychologiques et démographiques qui contribuent à déterminer l'impact de l'information relative à l'IG sur la différenciation de la marque. Le modèle des chemins testé combine des éléments de la théorie économique du consommateur (Lancaster, 1966) et de la théorie de la formation de l'attitude (Fishbein, 1967 ; Fishbein et Ajzen, 1975). Les résultats ne peuvent pas être généralisés au-delà du produit et de l'échantillon observés, mais la méthode reste applicable au niveau de l'industrie des produits IG comme un outil de recherche sur le consommateur en vue d'établir des stratégies de communication et marketing.*

Mots-clés: *Indications géographiques (IG), comportement du consommateur, disposition à payer, différenciation de la marque, analyse des chemins, huile d'olive, produits alimentaires, marketing.*

and compete with them to gain access to a restricted number of buyers (Steenkamp and Van Trijp, 1996). This need for simultaneous cooperation and competition among producers under the same GI creates a *"coopetition game"* among producers (Bengtsson and Kock, 2000; Tsai 2002). Producers who focus only on cooperation with neighbors and avoid competition may experience losses in terms of profitability and access to markets (Bureau and Valceschini, 2003; Dentoni *et al*., 2012). Therefore, this paper tackles a broadly relevant managerial problem: what is the appropriate information mix which differentiates an individual producer's brand with a GI label to consumer eyes vis-à-vis other brands having the same GI label?

Although urgent for many agri-food producers in regions covered by GIs (Dentoni and Reardon, 2010), the problem of differentiating an individual brand from other brands within the same GI region has not been fully tackled in the agricultural marketing literature. So far, research has found that: 1) a segment of world consumers develop positive evaluations for products with GIs for multiple reasons (Van der Lans *et al.*, 2001; Van Ittersum *et al.,* 2007; Darby *et al.,* 2008; Akaichi *et al.,* 2012); 2) information plays a role in strengthening consumers' positive evaluations (Brester and Schroeder, 1995;

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Kaiser and Liu, 1998; Chung and Kaiser, 2000) although it may prevent differentiation (Crespi and Marette, 2002); and 3) the role of information depends on intrinsic product characteristics (Ehmke *et al.*, 2008) and consumer characteristics (Gao and Schroder, 2009). A gap which persists in literature is which content and source of information differentiate an individual producer's brand from the other brands *within* the same GI region, and under which conditions.

To start filling this gap, we developed and tested a set of hypotheses to analyze the impact of different types and sources of GI information on consumers' perceptions, attitudes (Fishbein and Ajzen, 1975) and willingness to pay a premium price (WTPP) for a brand relative to its competitors in the market. Hypotheses are tested through path modeling (Hair *et al.*, 2006; Kaplan, 2009). Similarly to other multivariate statistical approaches, path modeling allows to explore how multiple factors simultaneously influence the effect of GI information on consumers' buying intentions (Hair *et al.*, 2006). The model is tested with data collected from 241 graduate students at Michigan State University (MSU) through an internet-based artefactual experiment on olive oil from "Riviera Ligure", a product labeled with a Protected Designation of Origin (PDO). PDOs are widely used GIs in the agri-food sector and regulated by the European Union (EU) policy framework.

The rest of this paper is organized as follows. The next section synthesizes the literature on GIs, on generic versus brand GI information and on the links between consumer psychology and economics. Hypotheses are developed in section 3, methods are introduced in section 4 and results are presented and discussed in section 5; section 6 concludes.

2. Literature Review

2.1. Linking Theory of Attitude Formation and Consumer Economics

The theoretical framework tested in this research is rooted in the Lancastrian approach to consumer economics (Lancaster, 1966) and in the psychology theory of attitude formation (Fishbein and Ajzen, 1975). According to Lancaster (1966), products possess multiple characteristics which are shared by multiple products and that products in aggregate can possess characteristics different from those pertaining to the goods separately. Product characteristics are categorized in search, experience and credence attributes (Nelson, 1970; Darby and Karni, 1973). Search attributes (e.g. price and color) can be assessed before purchase and consumption; experience attributes (e.g. flavor) can be assessed only during consumption; credence attributes (e.g. origin) cannot be assessed either before or after consumption. Linking consumer economics and marketing, Zeithaml (1988) generalized that consumer perceptions of product attributes lead to quality expectations and consumer value. In the case of products with credence and experience attributes, the presence of effective signals (Akerlof,

1970) increases consumer quality expectations and perceived product value. In the present context of this study, GIs can be viewed as a distinctive signal of the origin attributes of the product (Marette *et al.*, 2008; Moschini *et al.*, 2008). Such a signal of origin enhances both consumer quality expectations and their perceived value directly (Van der Lans *et al.*, 2001). Consumer willingness to pay (WTP) is an established measure of perceived product value elicited through choice experiments (e.g. Carlsson *et al.*, 2007). Willingness to pay a premium (WTPP) has been commonly used to estimate the differential consumer value for a product versus others (e.g. Govindasamy and Italia, 1999; Chiang *et al.*, 2012). Consumer WTP is one of the dimensions of consumer buying intentions (Eagly and Chaicken, 1980) and an outcome of brand equity (Aaker, 1991).

The relationship between consumer buying intentions, attitudes towards a product and evaluation and beliefs of product attributes has been generalized in psychology as the learning theory of attitude formation (Fishbein, 1967; Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980) and widely applied to marketing (Lutz, 1991). Consumer attitudes towards a product are formed by the interaction between the evaluation of its attributes and the belief (or perception) that the attribute is associated to the product (Fishbein, 1967). Furthermore, the impact of consumer attitudes towards a product on buying intentions depends on 1) their subjective norms, that is, to what extent they are influenced in their actions by the judgment of significant others (Fishbein and Ajzen, 1975); 2) their perceived self-efficacy, that is, to what extent they are able to accomplish the purchase once they have formed their intention to buy; and 3) the extent that the buying intention corresponds to behavior in terms of action, target, context, time-frame and/or specificity (Sheppard *et al.*, 1988). When receiving and processing new information about a product, consumers update their evaluations and beliefs related to the products, their attitudes and their buying intentions (Lutz, 1991; Keller, 1993). This research analyzes the different impacts of generic and brand GI information on consumer beliefs, attitudes and buying intentions (specifically WTPP) through the hypotheses developed as follows.

2.2. GIs and The Role of Information

Similarly to trademarks, GIs are distinctive signs which allow the identification of products on the food market (Addor and Grazioli, 2002). Yet, unlike trademarks GIs identify food products as originating from a particular geographic region (Babcock and Clemens, 2004). In the EU, Appellation of Controlled Origin (AOCs, from the French Appellations d'Origine Contrôlée), PDOs and Protected Geographical Indications (PGIs) are widely used GIs in the food sector and all regulated by a common policy framework (Sylvander *et al.*, 1999; Barham, 2003; Malorgio *et al.*, 2007; Marette *et al.*, 2008). In the rest of the world, GIs are generally regulated by private groups of producers and local public and/or private institutions within the frame-

work of national policies (Giovannucci *et al.*, 2010). For example, in the United States appellations do not generally imply additional information about variety or production methods (Goodhue *et al.*, 2004). Differently from Country-of-Origin Labels (COOL) in the US (Loureiro and Umberger, 2005), GIs represent a smaller geographical area of origin than a country and producers must demonstrate that a link between the territory and the product flavor exist (Menapace *et al.*, 2011).

GI labels are designed to guarantee consumers that food has a specific origin and follows a production process based on established codes of practice (Sylvander *et al.*, 1999; Fandos and Flavian, 2006). As such, GI labels act as signals of product quality in multiple dimensions, including both credence attributes (Darby and Karni, 1973) and experience attributes (Nelson, 1970; Anania and Nisticò, 2004). In other words, GI labels aim to reduce imperfect information between sellers and buyers about product attributes (Caswell and Mojduszka, 1996). Codes of practice establishing the production and product requirements of GI products act as mechanisms to make the certification credible and trustworthy (Anania and Nisticò, 2004; Moschini *et al.*, 2008), to embed complex quality information into collectively accepted standards (Ponte and Gibbon, 2005) and to increase trust among producers under the same GI.

To be effective signals of both food credence and experience attributes, GI labels need to 1) build reputation based on past customer experience (Shapiro, 1982) and to 2) provide appropriate information to customers (Menapace and Moschini, 2011; Saak, 2012). Most famous GIs (such as Parma Ham, Roquefort cheese or Champagne) naturally enjoy reputation based on their past history and international recognition. Conversely, more recently established and less recognized GIs need to mainly rely on providing appropriate information to consumers (Bureau and Valceschini, 2003). In both cases, information about the GI plays a key role in shaping consumers' perceptions, expectations of quality, and buying intentions (Caswell and Mojduszka, 1996). As they manage a collective rather than individual signal of quality, producers under the GI labels have to provide customers with a consistent and appropriate set of information about the GI (Costanigro *et al.*, 2010). This is challenging because 1) coordinating multiple producers under a joint marketing and communication strategy is costly, especially when the producer group is heterogeneous (Dentoni *et al.*, 2012), and 2) producers are generally not aware of how customers respond to different types and sources of information about the GI. In the wine sector, where multiple individual brands under the same GI have co-existed and competed for longer time than in other food sectors (Speed, 1998), researchers have found that individual brands under the GI label become more impactful on WTP than GIs themselves when the product price is higher (Costanigro *et al.*, 2010). However, heterogeneous market and product characteristics across GI producers may lead to

sub-optimal levels of joint investments (Costanigro *et al.*, 2012). Therefore, individual producers still find it particularly challenging to balance an appropriate marketing mix between generic promotion of the GI label versus brand communication of their individual product under the GI. This research aims to contribute tackling this challenge.

2.3. Types and Sources of GI Information

Two different types of information about the GI (or "GI information") can be distinguished based on the wide existing literature and empirical evidence: *generic information about the GI* (or "generic GI information") and *brand information about the GI* (or "brand GI information"). Both generic and brand GI information highlight the positive attributes of GI products and aim to increase consumer attitudes and buying intentions for GI products. Yet, generic and brand GI information reflect two different though complementary goals of producers. This difference in goals can be described both in terms of the Lancastrian approach to consumer economics theory and in terms of psychology theory of attitude formation. From an economic standpoint, *generic GI information* aims to increase consumer willingness-to-pay (WTP) and in turn create value for the entire GI production, independently from the individual brand selling under the GI label. Conversely, *brand GI information* aims to create value for an individual producer selling the GI label. From a psychological standpoint, *generic GI information* influences consumer buying intentions by increasing consumer positive evaluations for the GI attributes that in turn increase their attitudes towards GI products. Following the example by Crespi and Marette (2002), generic GI information about California raisins aims at increasing consumers' evaluative judgments for the "California" attribute when associated to the product "raisins". At the same time, generic GI information aims at increasing consumers' beliefs that the attribute "California" means "good flavor" or, for example, "eco-friendly". In contrast, *brand GI information* influences consumer buying intentions by increasing consumer perception that one individual brand has *stronger* GI attributes and/or other unique positive attributes complementary with the GI. For example, brand information about "Sun Maid Raisins" aims at increasing consumers' association between Sun Maid and California, as well as other favorable associations such as between Sun Maid and "good flavor" or between Sun Maid and "sunny land". Based on this mix of common and different goals of the two types of GI information, producers face brand *coopetition* and need to find an appropriate balance between providing generic versus brand GI information to consumers.

Commonly used marketing and communication activities provide either generic or brand GI information, or in some cases both. By definition, *generic advertising* (Brester and Schroeder, 1995; Kaiser and Liu, 1998; Chung and Kaiser, 2000; Crespi and Marette, 2002) provides generic GI information only. *Place branding* (Kotler *et al.*, 1993; Iversen

and Hem, 2008) includes joint activities by consortiums of producers providing generic GI information as well as individual activities by companies providing both generic and brand GI information. In other words, individual producers participating in place branding are required to provide brand GI information which complements generic GI information and aims to increase place brand equity. Differently from GIs, 1) place brands do not focus on a specific product but on a wide umbrella or products and services offered by a region and 2) are not regulated by EU or national policy frameworks but are usually registered as trademarks. Conversely, brand advertising, third-party private certifications, third-party endorsements and appraisals are common activities and resources to provide brand GI information and develop individual brand equity (Aaker, 1991; Keller, 1993). That is, these tools allow GI producers to develop consumer perceptions and evaluations for their brand beyond the generic GI product. Furthermore, producers without GI labels also make use of these marketing communication tools to create consumer perceptions of origin attribute often based on stereotypes (for example, Guinness beer from Ireland or Zespri kiwifruit from New Zealand) (Pappu *et al*., 2007). *Brand advertising* through mass media (Pappu *et al*., 2007) and *private third-party certification systems* (Farina and Reardon, 2000) have been often proved to be effective in the marketplace. Yet, they require a financial investment that is unbearable by many small and medium agri-food firms attempting to differentiate their product from competitors. *Third-party endorsements and appraisals* (Dean, 1999) from actors with high status in the marketplace (Podolny, 1993) – such as chefs, cultural associations, travel and cuisine guides linked to a particular territory and food product – are financially accessible means to provide brand GI information (Dentoni and Reardon, 2010).

Different types of GI information do not always correspond to different sources of GI information. On one hand, brand GI information is released uniquely by individual producers to develop and manage their own brand to differentiate it from others with or without the same GI label. On the other hand, generic GI information is usually provided by multiple sources: either a private firm, a group of firms under a cooperative or consortium representing the GI product or a public entity representing the firms within a GI region. This implies that individual producers have to balance the provision of generic and brand GI information to consumers. Through the hypotheses developed, this research aims to provide a framework for producers to find the appropriate balance.

3. Hypotheses Development

To start analyzing which type (*generic* versus *brand GI information*) and source (private versus collective) of information differentiates an individual producer's brand from the other brands *within* the same GI region, we develop the following set of assumptions and hypotheses. First, we hypothesize that *generic GI information* – either provided by an individual producer with the GI or a collective group of producers representing the GI – has no significantly higher impact on consumer WTPP for an individual producer's brand relative to the other brands under the same GI. In other words, we hypothesize that generic GI information does not create any brand differentiation, no matter who the source of the information is. This hypothesis is consistent with previous literature finding that generic advertising hampers brand differentiation (Kaiser and Liu, 1998, Crespi and Marette, 2002). Therefore, two hypotheses are stated as:

H1. Generic GI information provided by an individual producer **does not differentiate its brand from the other brands under the same GI in terms of consumer WTPP.**

H2. Generic GI information provided by an individual producer **does not have a higher impact on consumer WTPP than the same** *generic GI information provided by a collective group of producers* **under the same GI.**

If supported by empirical data, these hypotheses would lead to the conclusion that companies investing in providing generic GI information to consumers would cooperate, but not compete in the "brand coopetition" game of GI promotion. Moreover, assuming that the costs of providing generic GI information are cheaper when shared within a collective group of GI producers than when covered by one individual producer only, empirical support to these hypotheses would lead to the conclusion that it is more profitable to provide generic GI information to consumers through a collective group of producers rather than attempting to provide it individually.

Conversely, we hypothesize that *brand GI information* has a higher positive impact on consumer perceptions, attitudes and WTPP towards an individual producer brand than *generic GI information*. The hypothesis would hold only if consumers have been previously exposed to some generic GI information, no matter what the source is; if consumers ignore the place of origin represented by the GI, then consumers could not form an evaluation for the origin attribute of the product and so there could be no impact on consumer attitudes (Fishbein, 1967; Lutz, 1991). Therefore, a third hypothesis is stated as:

H3. **Once** *generic GI information* **has been previously provided to consumers,** *brand GI information* **provided by a firm does differentiate its individual brand from other brands under the same GI in terms of consumer WTPP.**

If supported by empirical data, this third hypothesis would lead to the conclusion that companies investing in brand GI information would effectively compete in the "coopetition game" of GI promotion. Assuming that the costs of providing generic versus brand GI information were the same for an individual producer, then empirical evidence supporting this hypothesis would imply that it is more profitable to provide brand GI information to consumers rather than generic GI information.

4. Methods

4.1. Sample and Product Selection

To test our hypotheses, we collected data through an internet-based experiment administered to 241 graduate students from MSU. When sending an e-mail advertisement to recruit students to undertake the test, we called for students that "are interested in food from different places and cultures" in order to gain a sample with higher involvement for specialty foods with place-of-origin attributes than the average US college students. Therefore, this sample is purposively not representative of the US college populations nor of the US population. As the main goal of this investigation is testing theory rather than collecting market information (Calder *et al.*, 1981; Lynch, 1999), we selected a sample from a fairly homogeneous sample. This was convenient to test hypotheses in laboratory settings and far from the noise of real market conditions, which increases variability due to the influence of external and uncontrollable factors (Calder *et al.*, 1981; Lynch, 1999; Winer, 1999). Out of the 241 students recruited, 80% are from the US. The remaining 20% mostly comes from Asia and Latin America, while only few participants are from Europe and Africa. On average, international participants have spent three years in the US. Females compose around 70% of our sample.

We selected extra-virgin olive oil from Riviera Ligure (Italy) as a product of interest based on four key criteria: 1) the product is unknown to our sample when associated to a specific place of origin (Riviera Ligure), although the country where the place is nested (Italy) may be well known. In this way, we attempt to give information treatments to respondents who have very weak prior beliefs regarding the products associated to the GI "Riviera Ligure", as respondents' prior beliefs may largely vary according to their individual experiences (John *et al.*, 1986); 2) the product is relevant for the majority of respondents, although their familiarity towards the product may vary significantly; 3) the product is commonly promoted in association with its origin attributes; 4) the product is largely used in experiments in consumer economics and marketing (Van del Lans *et al.*, 2001; Scarpa and Del Giudice, 2004; Caporale *et al.*, 2006; Finardi *et al*,. 2009; Chan-Halbrendt *et al.*, 2010; Delgado and Guinard, 2011; Menapace *et al.*, 2011) to allow meaningful integration with the extant literature. Within the obtained sample, 85% of our respondents consume olive oil at least once a month. Moreover, they have positive initial attitudes towards olive oil, as their average attitude is 6.1 points out of 7 when asked: "How would you describe your attitude towards extra-virgin olive oil?" Only four individuals in our sample (0.02% of our sample) have heard before about olive oil from Riviera Ligure, while 65% of our sample has heard about Italian olive oil in advance. Therefore, we have confirmed that, overall, the selected sample has a basic knowledge of and involvement with olive oil as generic product but has weak prior beliefs on olive oil from Riviera Ligure.

4.2. Experimental Procedure

The experiment was conducted in June 2009. Respondents were recruited through an email advertisement by the researchers from the university email address lists. Each respondent undertook a questionnaire divided into an initial demographics section plus two sections with information treatments and measurements. In the initial demographics section, respondents were asked preliminary questions about their gender and nationality, as well as their initial attitude towards and their use of olive oil. In the first section, we collect data on the impact of generic GI information to test hypotheses H1 and H2. Respondents were divided into four groups: 1) the first group received a treatment with *generic GI information from an individual producer* and then their beliefs, attitudes and WTPP for an individual brand of the producer providing the information were measured; 2) the second group received the same treatment (*generic GI information from an individual producer*) as the first group, but their beliefs, attitudes and WTPP were measured for a different brand with the same GI label; 3) the third group received *generic GI information from a collective group of producers* and then their beliefs, attitudes and buying intentions for the same individual brand as in the first group were measured; 4) the fourth group acted as a control group and received only a brief description of the extra-virgin olive oil product without any claim related to the place of origin and then their beliefs, attitudes and buying intentions for the same individual brands as in the first and third group were measured.

Consistently with the definition of *generic GI information* (section 2.3), the first two treatments were manipulated with one 80-word positive description of the product associated with Riviera Ligure together with the supporting GI label of the product (PDO Riviera Ligure) and a picture. The description was adapted from three different promotion messages used by Riviera Ligure producers in the marketplace and highlights the natural qualities of Riviera Ligure in association with traditional olive oil production and the meaning of the PDO (Figure 1a). The third piece of information involved a 130-word positive description of the PDO Consortium controlling and promoting the Riviera Ligure olive oil, plus the same highlight of the Riviera Ligure natural beauties and of the meaning of PDO (Figure 1b). Both the pieces of information and the picture were pre-tested to make sure that respondents had not statistically significant differences in beliefs and attitudes after being exposed to these treatments only.

Respondents' belief strength of the association between the individual brand and the GI label was measured with a single seven-point Likert scale from strongly disagree to strongly agree to a statement such as "I believe that "Brand A" extra-virgin olive oil is obtained from the most carefully selected olives of Riviera Ligure" consistently with Ea-

Figure 1a. *Generic GI information from individual producer.*

Riviera Ligure is an astonishing Italian region where mountains touch the sea, little fishers' villages keep their ancient beauty and olive trees grow in stone-made terraces. "Brand A" (*brand name omitted*) extra-virgin olive oil carries a Protected Designation of Origin (PDO). Contrary to others in the market, PDO olive oils are subject to origin control, documented traceability and chemical-physical analyses. Only upon completion of this sequence of controls an olive oil may bear that precious European Community label.

Figure 1b - *Generic GI information from a collective group of producers.*

Founded in 2001, the Riviera Ligure olive oil Consortium, with the strength deriving from the participation of the olive growers, presses and bottlers, is enthusiast to promote and protect the reputation of the extra-virgin olive oil from Riviera Ligure.
Riviera Ligure is an astonishing Italian region where mountains touch the sea, little fishers' villages keep their ancient beauty and olive trees grow in stone-made terraces. Extra-virgin olive oil from Riviera Ligure is certified as Protected Designation of Origin (PDO), thus controlled and promoted by the Riviera Ligure olive oil Consortium. Contrary to others in the market, PDO olive oils are subject to origin control, documented traceability and chemical-physical analyses. Only upon completion of this sequence of controls an olive oil may bear that precious European Community label.

Figure 1c - *Another generic GI information from individual producer.*

From Capo Cervo to the border with France, Riviera Ligure is a continuum of bays, traditional ports and rocks on the sea that suddenly become valleys and mountain peaks.
Riviera Ligure's history is rooted in a tradition in which the production of olive oil has played a central role for thousands of years. The "taggiasca" tree produces a unique olive and imparts Riviera Ligure olive oil with a full, delicate and well-rounded flavor, and a deep color. Here in Riviera Ligure, everything is different. Time does not matter. Also people are different: they built miles of stone walls to sustain stripes of cultivations all along the steepest mountains. They found the space for little squares of land among mountains, and took care of the hard soil for centuries to plant olives. And this produced a wonder: the extra-virgin olive oil. In this magnificent land, Riviera Ligure, the "Brand B" family produces its olive oil.

Figure 1d - *Brand GI information from individual producer.*

The Cipriani Hotel in Venice, the Orient Express luxury train, the Splendido Hotel in Portofino, the Quisisana Hotel in Capri… "Brand B" (*brand name omitted*) is a delicate extra-virgin olive oil from Riviera Ligure chosen by the best chefs and the most elegant hotels in Italy. "Brand B" has also received a special mention from the famous Michelin restaurant guide. It has been already chosen by top gourmet shops such as Whole Foods, Harrods in London and La Grande Epicerie in Paris. This is the result of four decades of work and passion for olives of the "Brand B" family, that obtains their olive oil from the healthiest and more carefully selected olives of Riviera Ligure.

gly and Chaiken (1993). In this case, "Brand A" is the individual brand, while "PDO Riviera Ligure" extra-virgin olive oil is the product with the GI label. Respondents' attitu-

des were elicited by asking the question "How would you describe your attitude towards "Brand A" extra-virgin olive oil from Riviera Ligure?" and then measured with a seven-point semantic differential scale from very negative to very positive. As discussed in psychology (Eagly and Chaiken, 1993; Chaiken and Stangor, 1987), attitudes can be measured as one-dimensional variables when related to abstract objects that do not cause a non-verbal reaction by respondents. Finally, respondents' WTPP was measured with an individual question such as "Would you pay a premium to have "Brand A" extra-virgin olive oil rather than another olive oil brand from Riviera Ligure?" where the possible answers were "yes", "no" or "I don't know". Studies assessing buying intentions such as WTP and WTPP through artefactual experiments with a convenient sample rather than actual consumers suffer of hypothetical bias (Lusk and Hudson, 2004). Such a bias usually inflates the real premium that respondents would pay in the marketplace (Lusk and Hudson, 2004); thus it is taken into account in the result discussion.

In the second section of the questionnaire, we collected data on the differential impact of *brand GI information* and *generic GI information* on consumers' beliefs, attitudes and WTPP. First, every respondent across the four groups received *generic GI information* before being administered with the next set of treatments, including the fourth group that did not receive it beforehand. Respondents were then divided into two groups: 1) the first group was given another 150-word paragraph including *generic GI information* by an individual producer and another pre-tested picture. This paragraph emphasizes the qualities and history of the Riviera Ligure region and the attributes of its "taggiasca variety" olives, which provide flavor to its olive oil (see Figure 1c). This piece of information was also adapted from existing promotional messages of olive oil producers in the marketplace. Then their beliefs, attitudes and buying intentions for that firm's brand were measured again; 2) the second group was instead given *brand GI information* from the same individual producer and another pre-tested picture. Consistently with its definition (section 2.3), brand GI information was manipulated with a 120-word description including a set of brand endorsements. In particular, the description mentions that the brand from Riviera Ligure is used by chefs in three prestigious Italian restaurants and one luxury train restaurant. Moreover, it claims that the brand is sold in two famous stores in London and Paris and one gourmet food store chain in US. Finally, it highlights that the brand received a special mention by a famous European restaurant guide (see Figure 1d).

4.3. The Model

We used path analysis as methodology to test hypotheses. Relatively to linear regressions, path models involve a set of multiple equations linking variables such that the dependent variable in one equation is the independent variable in the following equation (Hair *et al*., 2006). Relatively to structural

equation models (SEM), path analysis employs only individual measures rather than latent factors reflecting multiple measures (Hair *et al.*, 2006). The relationship among the variables can be interpreted as cause-effect or as a simple association depending on the theory driving the data interpretation (Kaplan, 2009). Then, we selected path analysis because of two distinctive features: 1) it provides a means to assess a set of relationships simultaneously rather than in separate analyses (Hair *et al.*, 2006); 2) it allows exploring mediators and moderators which may reduce the heterogeneity of the variance of the dependent variables (Kaplan, 2009). In the context of this study, path analysis allows deepening the result insights by: 1) testing *if* brand GI information leads to brand differentiation relatively to generic GI information, as well as 2) exploring *which psychological factors* (consumer beliefs and attitudes) mediate and *which conditions* (consumer demographics) moderate such a brand differentiation effect.

The *generic* and *brand GI information* are administered treatments in the experiment, so they represent exogenous binary variables taking "0" or "1" values in three similar path models. Specifically, the three path models can generically be described as:

(1) $BELSEL = \beta_{11}INFO + \boldsymbol{\beta_{12}DEM} + \boldsymbol{\beta_{13}} INIT + \varepsilon_1$

(2) $BELFLAV = \beta_{21}INFO + \beta_{22}BELSEL + \boldsymbol{\beta_{23}DEM} + \boldsymbol{\beta_{24}} INIT + \varepsilon_2$

(3) $ATT = \beta_{31}INFO + \beta_{32} BELSEL + \beta_{33} BELFLAV + \boldsymbol{\beta_{34}DEM} + \boldsymbol{\beta_{35}INIT} + \varepsilon_3$

(4) $WTPP = \beta_{41}ATT + \beta_{42}BELSEL + \beta_{43} BELSEL + \boldsymbol{\beta_{44}DEM} + \boldsymbol{\beta_{45}INIT} + \varepsilon_4,$

where *BELSEL* stands for respondents' beliefs that the branded product is from the most carefully selected product from the place-of-origin[1], *BELFLAV* means respondents' beliefs that the branded product has a good flavor, *ATT* stands for respondents' attitudes towards the brand and *WTPP* stands for the willingness to pay a premium price for the brand relatively to other brands from the same place of origin[1]. Moreover, ***DEM*** and ***INIT*** are vectors of exogenous variables in the path models including respectively gender, nationality, initial attitudes and habits towards the products. Finally, the meaning of the treatment variable *INFO* varies according to the three hypotheses: in the first path model, the variable *INFO* with value "0" represents the impact of *generic GI information from an individual producer* on its own brand, while the value "1" represents the *impact of generic GI information* on another brand with the same GI label. In the second path model, the value "0" of the *INFO* variable represents *generic GI information from an individual producer* and the value "1" represents *generic GI information from a collective group of producers*. In the third path model, the value "0" of the variable *INFO* represents *generic GI information from an individual producer*, while the value "1" represents *brand GI information*.

The relationships among these variables are estimated through path coefficients (βs). These are standardized regression coefficients showing the direct effect of an independent variable on a dependent variable in the path model. Thus when the model has two or more causal variables, path coefficients are partial regression coefficients which measure the extent of the effect of one variable on another in the path model controlling for other prior variables. As an intercept is not usually included in path models, βs describe deviations from the mean (Bentler, 2006). The residual error terms or disturbance terms, described by $\varepsilon_1, \varepsilon_2, \varepsilon_3$ and ε_4 reflect unexplained variance plus measurement error. Given the number of parameters to be estimated and the degrees of freedom for each model, we decide to select a total sample size close to 240. We choose this size with the rule of thumb that each path model should be based ideally on 10 observations (Kline, 1998) and at least on 5 observations (Bentler and Chou, 1987) per degree of freedom.

The path analysis is conducted with the computer package EQS 6.1 (Bentler, 2006). Satorra-Bentler robust maximum likelihood estimation (MLE) is used to obtain path coefficients, as various binary categorical variables are present in the model, including *INFO*, gender and nationality (Bentler, 2006). The dependent variable *WTPP* is binary but has been treated as continuous in these path models. This gives the opportunity of analyzing the impact of endogenous variables on WTPP, which would have not been possible otherwise. Treating dependent binary variables as continuous is generally inappropriate and can lead to meaningless interpretations (MacCallum *et al.*, 2002), such as estimated probabilities that "1" happens below zero or above 1. However, the problem is limited when the sample size is small relative to the degrees of freedom and the quantity of "1" within the sample is low (Bentler, 2006) as it is the sample under study. Furthermore, we tested and confirmed the stability of the path models by comparing the results with and without the equation *(4)* with *WTPP* as binary variable. Consistently with the established assumptions normality of distribution and continuity of Likert and semantic differential scales in path analysis and SEM (Kaplan, 2009), we modeled the seven-point Likert and semantic differential scales as continuous variables too.
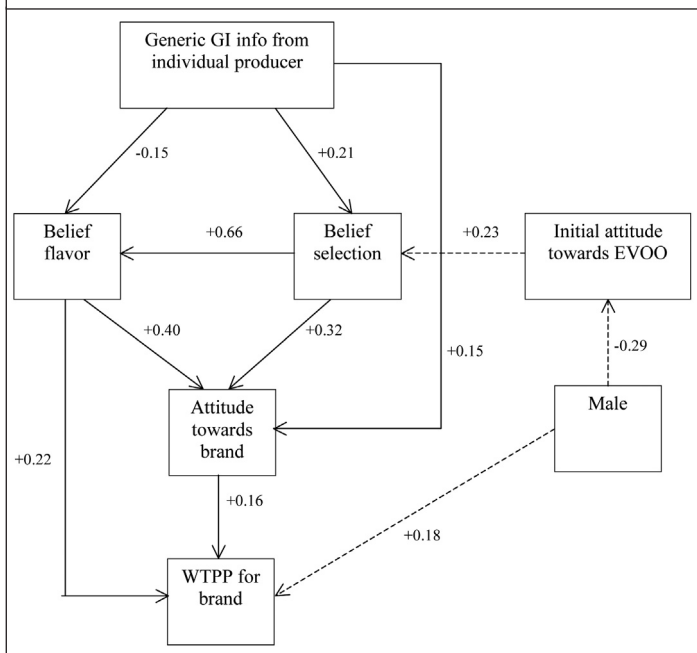
5. Results and Discussion
5.1. The Impact of Generic GI information on Brand Differentiation

Results show that the *generic GI information* about PDO Riviera Ligure olive oil does have a significantly higher impact on respondents' WTPP for the individual producer

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[1] We decided to model WTPP as a binary variable, where the value "1" stands for respondents that are willing to pay a premium price, where the value "0" stands for respondents that have answered either "no" or "I don't know". We decide to count the "I don't know" responses as "0" values because, although the percentage of participants responding "I don't know" is around 30%, from a t-test we found no significant variation in the change of this percentage across groups.

Figure 2 - *The Impact of Generic GI Information from Individual Producer on WTPP vis-à-vis Competing Brand with same GI label.*

brand of the firm releasing the information (say, "Brand A") relatively to other brands from the same place of origin (say, "Brand B") (Figure 2). The direct effect of a firm giving attribute information on respondents' WTPP for "Brand B" relatively to "Brand A" is -0.10 percentage points, while its indirect effect is equal to -0.05 percentage points (Table 1). As common in path analysis (Bentler, 2006), we computed the indirect effect as the sum of the products of all the path coefficients linking the information treatment to the willingness to pay a premium for the brands. The sum between the indirect and the direct effect results in a total causal effect of -0.15 percentage points (Table 1). This means that when generic GI information is provided by the firm owning "Brand A", the expected percentage of respondents that are willing to pay a premium for "Brand B" is 15% lower than the mean (25%), that is 25%-15%=10%. The overall fit of this model is excellent, with Comparative Fit Index (CFI) =1.00 and Root Mean Square Error of Approximation (RMSEA)=0.00. To assess the overall fit of the model with the data, RMSEA and CFI both analyze the discrepancy between the hypothesized model and the population covariance matrix adjusting for sample size issues. Models with CFI > 0.9 and RMSEA < 0.1 are considered having acceptable fit, while models with CFI > 0.95 and RMSEA < 0.05 have a good fit (Kaplan 2009). Chi-square (χ^2) p-value is 0.76 with 12 degrees of freedom (d.f.), confirming that the overall fit is good.

The analysis of the mediators of the impact of *generic GI information* on brand differentiation is synthesized in three points. First, respondents perceive more that "Brand A" is selected with quality standards relatively to "Brand B" (-0.21 points) and, overall, have developed higher attitudes

towards "Brand A" than towards "Brand B" (-0.15 points, Table 1). Second, respondents perceive that "Brand B" has a better flavor than "Brand A" (0.15 points). This is quite surprising and may reflect consumer perception that producers who do not invest on brand advertising (such as "Brand B" producer) have more focus on the tangible product attributes such as flavor. Third, consumer beliefs have a positive influence on their attitudes and WTPP (Table 1). These results show that the effect of generic GI information on consumer WTPP for producer's brand is mainly direct (see "Direct" and "Indirect Effect of INFO on WTPP" in Table 1 and Figure 2). Consistently with Fishbein (1967) and Eagly and Chaicken (1993), a direct effect of information on WTPP represents an "affective" reaction (Eagly and Chaicken, 1993) rather than an indirect effect mediated by respondent beliefs, which reflects a rational decision-making process based on formed perceptions. The analysis of the demographic moderators of the impact of *generic GI information* on brand differentiation show that females take instinctive decisions more than males in their evaluation of the two brands: the impact of *generic GI information* is significantly higher on female respondents' attitudes and WTPP for "Brand A" than for "Brand B" (Table 1). Instead, males take a more "rational" approach to their evaluation of the two brands, as the impact of generic GI information is higher on male respondents' beliefs.

Therefore, overall data evidence does not support the first hypothesis (H1) in the case of PDO Riviera Ligure olive oil. An olive oil firm releasing *generic GI information* which highlights the natural qualities of Riviera Ligure in association with traditional olive oil production and the meaning of the PDO (such as in Figure 1a) may expect to gain an advantage in terms of WTPP. In other words, by releasing this type of *generic GI information* to consumers who do not have prior knowledge of Riviera Ligure (such as MSU graduate students who showed interest in international food and cuisine), a company effectively "coopetes". It cooperates by promoting the entire GI region, while it competes by differentiating itself from the other brands.

5.2. The Impact of Generic GI information from a Collective Organization

Results show that *generic GI information provided by an individual producer* of PDO Riviera Ligure olive oil has a significantly higher impact on respondents' WTPP for its own brand than *generic GI information provided by a collective group of producers* under the GI label (Figure 3). The overall effect of generic GI information from an individual firm on respondents' WTPP for its brand is +0.31 percentage points, that is the sum of the direct effect (+0.21) and the indirect effect mediated by respondents' beliefs and attitudes (+0.10) (Table 2). Therefore, when generic GI information is provided by an individual producer, the expected percentage of respondents that have WTPP for its brand is 31% higher than the mean (20%), that is 20%+31%=51%. As the overall fit of this

Table 1 - *The impact of Generic GI Information from individual producer on WTPP for "Brand A" vis-a-vis competing brand with the same GI label ("Brand B").*

Dependent Variable	Independent Variables	Standardized Path Estimates	Std. Errors
BELSEL	*Mean*	*5.05*	
	INFO (0=on Brand A; 1=on Brand B)	**-0.21***	0.18
	MALE	-0.13	0.20
	ATTEVOO	0.23*	0.11
	E1	*0.94*	
BELFLAV	*Mean*	*4.80*	
	INFO (0=on Brand A; 1=on Brand B)	**0.15***	0.14
	BELSEL	0.66*	0.07
	MALE	0.08	0.14
	EUROPE	0.13	0.89
	E2	*0.75*	
ATT	*Mean*	*5.41*	
	INFO (0=on Brand A; 1=on Brand B)	**-0.15***	0.14
	BELSEL	0.32*	0.11
	BELFLAV	0.40*	0.09
	MALE	0.13	0.13
	ATTEVOO	0.21*	0.07
	E3	*0.66*	
WTPP	*Mean*	*0.25*	
	BELSEL	0.10	0.05
	BELFLAV	0.22*	0.05
	ATT	0.16*	0.04
	INFO (0=on Brand A; 1=on Brand B)	**-0.10**	0.07
	MALE	0.18*	0.08
	E4	*0.89*	
ATTEVOO	*Mean*	*6.18*	
	MALE	-0.29*	0.20
	E5	*0.96*	
Indirect Effect of INFO on WTPP		-0.05	
Direct Effect of INFO on WTPP		-0.10	
Total Causal Effect of INFO on WTPP		**-0.15**	

Goodness-of-Fit Indices:
Satorra-Bentler scaled χ^2= 6.68 with 10 d.f.; P-value for χ^2 = 0.76
CFI = 0.100; RMSEA = 0.000; RMSEA 90% Confidence Interval = (0.000; 0.071)
Note: Asterisk (*) denotes variables significant at 95%.

model is good (CFI=0.98, RMSEA=0.05; χ^2 p-value= 0.19), we conclude that generic GI information by an individual producer significantly differentiates its brand relatively to the same information from a collective group of producers. Respondents' beliefs as mediators have the same role as in the first path model: beliefs in the selection according to quality standards are higher when the individual producer provides the generic GI information, while beliefs in the product quality are higher when the same information is provided by a collective group of GI producers (Table 2). Conversely, demographic moderators play an insignificant role in this path model (Table 2).

Based on this result, we conclude that data evidence does not support the second hypothesis (H2) in the case of PDO Riviera Ligure olive oil. An olive oil firm from Riviera Ligure may expect to obtain a price premium for its brand when it releases *generic GI information* by itself rather than when the same piece of information – with an added description of the Consortium controlling and promoting the quality of the olive oil (such as in Figure 1b) - is released by a collective group of producers under the same GI. Thus, providing generic GI information as collective group of producers may be a way to *cooperate* in promoting Riviera Ligure to consumer with little prior knowledge, yet it is not an effective way to *compete* with other brands within Riviera Ligure.

5.3. The Impact of Brand GI information

Results show that *brand GI information* leads to a significantly higher impact on respondents' WTPP for a PDO Riviera Ligure olive oil brand than *generic GI information* (Figure 4). The total causal effect of brand GI information is +0.27 percentage points, that is, the sum of the direct effect (+0.17) and the indirect effect mediated by respondents' beliefs and attitudes (+0.10) (Table 3). Thus, when an individual firm provides brand information to a group of respondents, the expected percentage of respondents that are willing to pay a premium for its brand is 27% higher than the expected percentage across groups (17%), that is 17%+27%=44%. CFI=0.93 and RMSEA=0.075 indicate that the model has an acceptable overall fit with the data. As it is sensitive to sample size relatively to a higher number of d.f.=23, χ^2 p-value is not considered for this third model.

Furthermore, results show that respondents' beliefs play a key mediating role, while attitudes do not (Table 3 and Figure 4). That is, when receiving brand GI information, respondents form their buying intentions in terms of WTPP through a rational process rather than through an affective or instinctive positive reaction towards that brand. As regards the variables moderating the impact of brand GI information on brand differentiation, 1) female respondents,

Figure 3 - *The Impact of Generic GI Information from Individual Producer vis-à-vis from Collective Group of Producers on WTPP.*
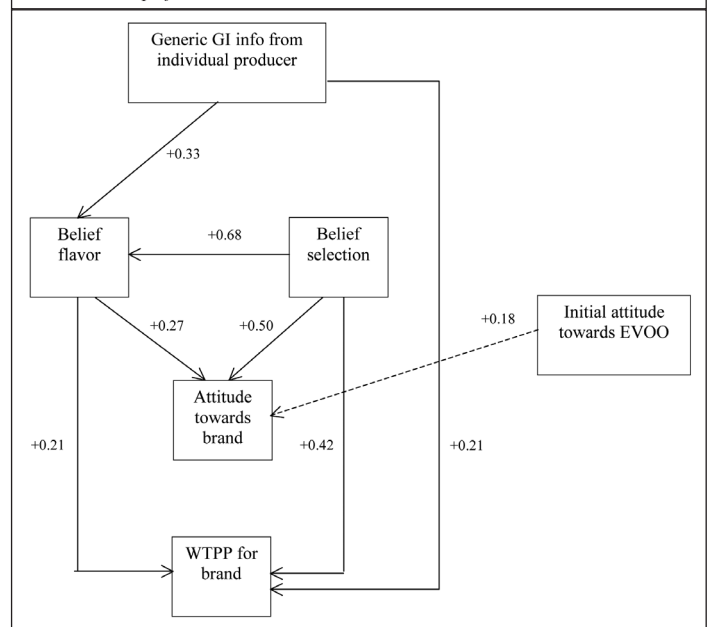
Table 2 - *The impact of Generic GI Information from individual producer vis-a-vis collective group of producers on WTPP for "Brand A".*

Dependent Variable	Independent Variable	Standardized Path Estimates	Std. Errors
BELSEL	*Mean*	*5.00*	
	INFO (0=from Coll.Org.; 1=from Firm)	**0.25**	0.18
	MALE	-0.13	0.19
	E1	*0.96*	
BELFLAV	*Mean*	*4.65*	
	BELSEL	0.68*	0.07
	INFO (0=from Coll.Org.; 1=from Firm)	**-0.33**	0.14
	MALE	0.06	0.14
	EUROPE	0.16	0.69
	E2	*0.73*	
ATT	*Mean*	*5.24*	
	BELSEL	0.50*	0.09
	BELFLAV	0.27*	0.07
	INFO (0=from Coll.Org.; 1=from Firm)	**0.18**	0.13
	MALE	0.10	0.12
	ATTEVOO	0.19*	0.05
	E3	*0.62*	
WTPP	*Mean*	*0.20*	
	BELSEL	0.42*	0.05
	BELFLAV	0.21*	0.05
	ATT	0.14	0.05
	INFO (0=from Coll.Org.; 1=from Firm)	**0.21***	0.06
	MALE	0.04	0.07
	E4	*0.89*	
Indirect Effect of INFO on WTPP		+0.10	
Direct Effect of INFO on WTPP		+0.21	
Total Causal Effect of INFO on WTPP		**+0.31**	

Goodness-of-Fit Indices:
Satorra-Bentler scaled χ^2= 16.08 with 12 d.f.; P-value for χ^2 = 0.19
CFI = 0.978; RMSEA = 0.053; RMSEA 90% Confidence Interval = (0.000; 0.112)
Note: Asterisk (*) denotes variables significant at 95%.

2) with more familiarity for olive oil and 3) with higher initial attitudes towards olive oil, are more likely to take a rational rather than instinctive approach mediated by their perceptions (Table 3). This reflects the fact that these respondents have higher ability and motivation to rationally process the brand GI information when forming their behavioral intentions.

We conclude that data evidence does support our third hypothesis (H3) in the case of PDO Riviera Ligure olive oil. Therefore, an olive oil producer from Riviera Ligure may expect to obtain a higher consumer percentage of consumer WTPP for its brand when providing *brand GI information* rather than *generic GI information* when consumers already have received prior generic GI information. Thus, in this case a brand GI information is a more effective tool to *compete* with other Riviera Ligure producers than generic GI information. In this research, brand GI information reported a large set of brand endorsements from chefs in prestigious hotels and luxury trains, buyers in famous international stores and gourmet food chains, and one well-known restaurant guide (Figure 1d). This is a quite ambitious set of brand endorsements for an oil olive producer to achieve (Dentoni and Reardon, 2010), and we expect that producers displaying a smaller set of endorsements may not achieve the same differentiation in the marketplace.
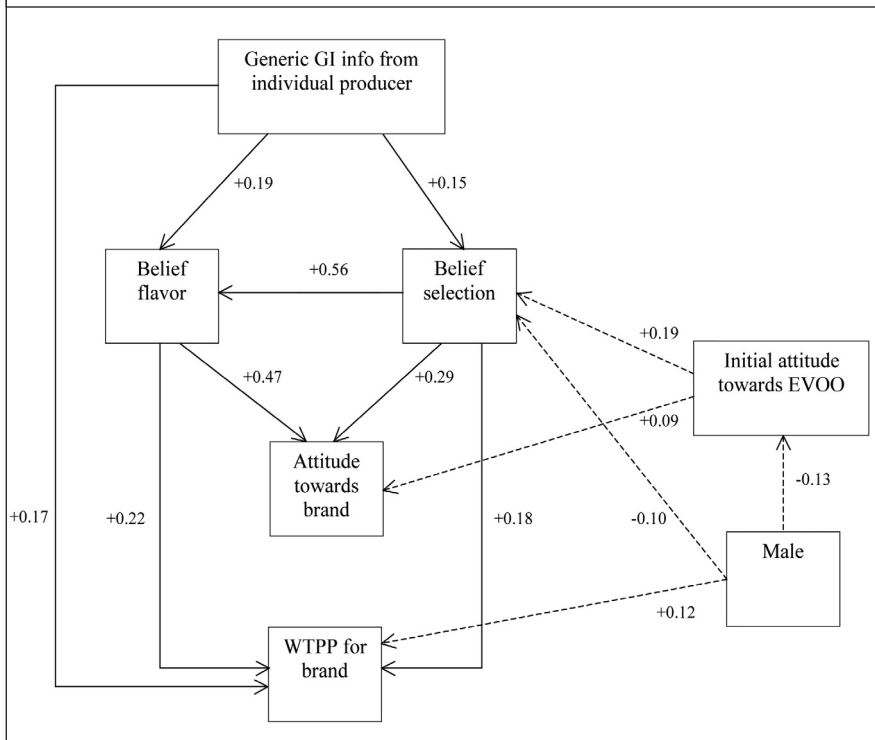
6. Conclusions

Agricultural marketing literature largely analyzed the effects of generic advertising and collective certification schemes on consumers' evaluations for food products under GI label, but rarely studied how producers can create a competitive advantage for their individual brand relatively to the other brands *within* the same place of origin. Yet, food producers often have to face "coopetition" (Bengtsson and Kock, 2000; Tsai, 2002) in the marketplace, that is, they have to *cooperate* to build a collective GI reputation and at the same time *compete* for limited buyers' shelf space.

Building upon the theory of attitude formation (Fishbein, 1967; Fishbein and Ajzen, 1975) and consumer economics (Lancaster, 1966), this study attempts to start filling this gap by analyzing which type and source of GI information differentiates an individual producer's brand from the others within the same place-of-origin. To do that, we first distinguished *generic* and *brand GI information* into two broad categories depending on the aim and the content of the provided information. Then, we analyzed the impact of plausible pieces of *generic* and *brand GI information* treatments on consumer beliefs, attitudes and buying intentions for competing brands with the same GI label.

Results lead to two key conclusions. First, *generic GI information* including a description of the natural qualities of the GI region, its association with the food product, and an explanation of the PDO meaning can be used as a differentiation tool by olive oil producers who want to compete with other producers from the same place of origin. Path analysis allows also to explore the causes behind consumers' differentiation of a producer's brand providing such a generic GI information. Respondents have an "affective" positive reaction, that is, not significantly mediated by changing perceptions towards the information provider. In other words, consumers do not react to this type of generic GI information with higher perceptions of quality for the producers' brand. Instead, they react by simply liking the producer's brand more than competing brands and this leads to a higher probability of paying a WTPP. Overall, this result indicates that – in the case of Riviera Ligure olive oil with consumers with little prior knowledge, such as MSU graduate students with an interest for international food and cuisine – producers may effectively "coopete" by providing such a generic GI information. More broadly, this result indicates that complementarity between collective and individual firms' communication strategies could be

Figure 4 - *The Impact of Brand GI Information vis-à-vis Generic GI Information from Individual Producer on WTPP.*

for producers to provide brand GI information within Italy and neighbor countries, where most of the consumers are already familiar with the GI region and its olive oil. In terms of contribution to the literature, this result complements and integrates recent findings on olive oil marketing. These concluded that generic GI information (Menapace *et al*., 2011), expert ratings and sensory product characteristics (Delgado and Guinard, 2011) and health claims (Finardi *et al*., 2009) have an impact on consumer perceptions, attitudes and buying intentions. Moreover, the results on mediating variables on the effect of generic and brand GI information expand the findings on the effects of GI labels as cues of overall product quality (Van del Lans *et al*., 2001). Finally, results on demographic moderators on the effect of GI information on olive oil complements the findings on the relative importance of olive oil origin given by different consumer segments (Scarpa and Del Giudice, 2004; Chan-Halbrendt *et al*., 2010).

To drive broader conclusions that contribute to agri-food managers' marketing and communication strategies, three points need to be taken into account. First, a number of factors may influence the content and the effect of generic and GI information on brand differentiation, including: the nature of the GI product (olive oil versus others), the territory (Riviera Ligure versus others), the type of GI label (PDO versus others), the region and/or country of origin reputation where the GI is established (Liguria, Italy versus others) and the consumer targeted (college students in the USA versus others). Therefore, results provide an example of how testing this set of hypotheses can lead to managerial implications, but as such cannot be generalized to other contexts apart from PDO Riviera Ligure olive oil. Second, the brand GI information treatments on a Riviera Ligure olive oil brand with PDO label attached are composed by a set of reported claims from a heterogeneous set of sources, including retailers, opinion leaders' endorsements and food competition awards won. We estimated the impact of the treatment as a whole, without trying to estimate the marginal impact of each piece of information depending on its source. Estimating the marginal impact of different reported sources of information composing brand GI information may also provide insights on how to develop effective brand GI information. Third, buying intentions were estimated in terms of WTPP without attempting a quantification of the price premium. Estimating the impact of GI information on consumer WTP would provide the basis to financial scenario-building comparing costs and benefits of developing and providing the discussed types of GI information.

achieved with generic GI information when consumers have little prior knowledge for the GI region. Limited to the studied case, this result has implications for producers selling to novel olive oil consuming regions – for example, the rapidly expanding East Asian, Middle Eastern, Russian and East European markets, as well as the North American and North European markets, whose consumption of olive oil is still expanding (Giorno *et al*., 2013). In these markets, producers may effectively "coopete" by providing generic GI information individually rather than organizing themselves and send generic GI information as a collective entity.

Second, *brand GI information* differentiates a brand from competing brands when consumers have already prior knowledge of the promoted olive oil region. In this experiment, brand GI information included a large set of brand endorsements from chefs, buyers in famous international stores and one well-known restaurant guide. Such a variety of brand endorsements may not be always possible to obtain for food producers, as developing a network to engage with highly recognized and influential actors in the food chain may be challenging and costly (Dentoni and Reardon, 2010). When receiving brand GI information, consumers had a rational response to the brand information. That is, consumers receiving the brand GI information like brand mainly because they believe that it is associated to higher quality. This result suggests that providing GI information is an appropriate way to compete - although not necessarily to cooperate - when consumers have already prior knowledge of the GI region. In the case of Riviera Ligure, it seems advisable

Table 3. *The impact of brand g GI information vis-à-vis generic GI information from individual producer on WTPP for "Brand A".*

Dependent Variable	Independent Variable	Standardized Path Estimates	Std. Errors
BELSEL	*Mean*	*4.71*	
	INFO (0=Gen. Info; 1=Brand info)	**0.19***	0.13
	MALE	-0.12*	0.14
	ASIA	0.12	0.22
	ATTEVOO	0.19*	0.07
	E1	*0.95*	
BELFLAV	*Mean*	*4.79*	
	BELSEL	0.56*	0.05
	INFO (0=Gen. Info; 1=Brand info)	**0.15***	0.10
	FAMEVOO	0.16*	0.04
	MALE	-0.10*	0.11
	EUROPE	0.10*	0.35
	E2	*0.74*	
ATT	*Mean*	*5.03*	
	BELSEL	0.29*	0.06
	BELFLAV	0.47*	0.06
	ATTEVOO	0.09*	0.04
	E3	*0.70*	
WTPP	*Mean*	*0.17*	
	BELSEL	0.18*	0.03
	BELFLAV	0.22*	0.04
	ATT	0.03	0.03
	INFO (0=Gen. Info; 1=Brand info)	**0.17***	0.04
	MALE	0.12*	0.05
	E4	*0.89*	
FAMEVOO	*Mean*	*2.81*	
	ATTEVOO	0.46*	0.06
	EUROPE	0.12*	0.30
	ASIA	-0.11	0.26
	E5	*0.86*	
ATTEVOO	*Mean*	*6.05*	
	MALE	-0.13*	0.14
	ASIA	-0.14*	0.25
	E6	*0.98*	
Indirect Effect of INFO on WTPP		+0.10	
Direct Effect of INFO on WTPP		+0.17	
Total Causal Effect of INFO on WTPP		**+0.27**	

Goodness-of-Fit Indices:

Satorra-Bentler scaled χ^2= 53.65 with 23 d.f.; P-value for χ^2 = 0.00

CFI = 0.932; RMSEA = 0.075; RMSEA 90% Confidence Interval = (0.049; 0.100)

Note: Asterisk (*) denotes variables significant at 95%.

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