

# The effect of information and co-branding strategies on consumers willingness to pay (WTP) for Protected Designation of Origin (PDO) products: the case of pre-sliced Parma Ham

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**Summary.** The purpose of the paper is to investigate the impact of information and co-branding strategies on consumers WTP for PDO agri-food products. The first part analyses the theoretical background on perception of quality for agri-food products. The second part describes a case study on the effect of information and co-branding strategies on consumer WTP. The Contingent Valuation Method was used to evaluate WTP for pre-sliced Parma Ham packages displaying different combinations of brands. Results show that the process of value adding and WTP is positively influenced by brands guaranteeing the link with the territory through European quality schemes or association or producer brands rather than through private labels. Such schemes may thus be a key element in competition for producers against the contractual power of large retailers. This is a result that may serve to European policy makers when supporting producer organizations.

**Key words:** PDO, co-branding, Willingness To Pay, information, Contingent Valuation Method.

«L'EFFETTO DELLE STRATEGIE INFORMATIVE E DI CO-BRANDING SULLA DISPONIBILITÀ A PAGARE (WTP) DEI CONSUMATORI PER I PRODOTTI A DENOMINAZIONE DI ORIGINE PROTETTA (DOP): IL CASO DEL PROSCIUTTO DI PARMA PRE-AFFETTATO»

**Riassunto.** Lo scopo del lavoro è studiare l'impatto delle strategie di informazione e di co-branding sulla disponibilità a pagare (WTP) dei consumatori per i prodotti agroalimentari DOP. La prima parte analizza la letteratura in materia di percezione della qualità dei prodotti agroalimentari. La seconda parte descrive un caso di studio sull'effetto delle strategie di informazione e di co-branding sulla WTP dei consumatori. A tal fine, è stato utilizzato il metodo della Valutazione Contingente applicato alle confezioni di Prosciutto di Parma pre-affettato, sulle quali sono presenti diversi marchi. I risultati mostrano che la WTP è positivamente influenzata da marchi che garantiscono il legame con il territorio, siano essi contrassegni di schemi europei di qualità o marchi di produttori o di associazioni di produttori, piuttosto che dalle private label. Tali contrassegni/marchi possono quindi essere un elemento chiave per i produttori nel contrastare il potere contrattuale della grande distribuzione. Questo è un risultato che può essere utile ai policy maker europei quando affrontano il tema del sostegno alle organizzazioni di produttori.

**Parole chiave:** DOP, co-branding, disponibilità a pagare, informazione, Metodo della Valutazione Contingente.

## Introduction

The role of food in the globalization process is clearly recognized. Nowadays, the food sector represents the top globally integrated market and the most fluid example of interaction between international exchanges and local practices (1). Because regional and typical products can be strong contenders in national or export markets, the recognition of origin products goes hand in hand with globalization (2, 3). In fact, it is development of long distance trading that has brought about the diversity of products on markets, and the need to identify these products by their origin has led to agreements to regulate product names (4).

Safety issues are also a big concern for consumers. Pesticide residues, veterinary drugs, Bovine Spongiform Encephalopathy and Swine Flu are just some of the food emergencies that are gradually making society as a whole more cautious about the quality of food (5).

In this context, European quality schemes for traditional agri-food products can be a tool to develop strategies in modern markets. Producers who adhere to European PDO, PGI and TSG certification schemes are formally declaring their conformity to a socially responsible way of doing business by paying all the related costs. Certification allows producers to avoid the risk of imitation by the competitors, to differentiate themselves and to justify a higher price to costumers (5). Investments in quality certification schemes become a way to improve brand reputation (6). In fact, the link between bio physical environment, traditions and local know how make the local agri-food products unique. PDO PGI and TSG could be considered a type of branding differentiation strategy by virtue of the *value* they generate for consumers. They are a guarantee of authenticity, genuineness and safety (7) and the link with the history and the people of European places (8)<sup>1</sup>.

Consumer interest has in turn attracted the interest of numerous actors in these products. Today, in fact, many PDO products on the market show evidence of a multiple branding system, in the sense that PDO/PGI/TSG logos, Consortium brands, producers and/

or retailers brands coexist on the same package. PDO Parma ham is no exception.

The aim of the paper is to analyse the impact of information and co-branding<sup>2</sup> strategies on consumers WTP for a PDO agri-food product, i.e. the pre-sliced format of the PDO Parma ham.

The case of pre-sliced PDO Parma Ham is significant for the following reasons: i) Parma Ham Consortium and its brand have been crucial in building the reputation of the product on the market over the years (10-12); ii) the pre-sliced format of PDO Parma ham is a successful product gradually gaining foreign as well as Italian market share; iii) the pre-sliced PDO Parma ham packages available on the market present several brands. Moreover, although Prosciutto di Parma PDO has been extensively researched, little economic research has been done on consumer WTP for the pre-sliced package.

The paper consists of four sections. Section Two describes the theoretical background based on Lancaster (13) and Nelson (14). Section Three describes the methodology and main results of the case study. Section Four provides some conclusions.

## Theoretical background

Many researchers attempted to understand the factors that influence consumer perception of quality. Morris and Young (15) defined quality according to a multi-dimensional approach where different actors of the global value chain have different points of view. For consumers, quality mainly concerns food safety and health issues, while for producers quality is a marketing opportunity. However, intrinsic and extrinsic quality attributes of food products are both fundamental quality properties (16) in consumer perception, and it is individual evaluation of material and immaterial features which creates the essence of quality. Lancaster's model on the perception of quality attributes (13) is one of the most important contributions that has shaped the theoretical approach to monetary values of quality attrib-

<sup>1</sup>PDO and PGI logos guarantee the link with the territory; the TSG logo guarantees that the production techniques are traditional.

<sup>2</sup>Kotler and Keller (9) define co-branding as "two or more well-known brands combined in an offer". Each brand's sponsor expects that the other brand name will strengthen the brand preference or purchase intention and hopes to reach a new audience.

utes. Lancaster theorised that a product can be defined through its qualities, and consumption is an activity that transforms goods into multiple quality attributes. He observed that splitting the product into its features also implies taking into consideration different sets of prices for different properties. The advantage of breaking up the product and the consumer decision-making process is to observe all the variables involved and understand which elements regulate utility, and finally monetize them. Consumer perception of quality is thus based on information that the consumer is able to obtain and process. But the agri-food market is an example of an *asymmetric information* market<sup>3</sup> where consumers do not have full information to optimize their choices when they buy food. In fact, food products are defined by three attributes: search, experience and credence attributes (14). “Search attributes” are those not directly visible features of food products which can be found by searching for information e.g. on the package label. Research for information goes on until the marginal costs exceed the marginal benefits of searching. As soon as research becomes too costly, the consumer purchases the item and experiences previously unknown characteristics of the products, e.g. taste. This is an *experience attribute*. In the third category, *trust* or *credence attributes*, the consumer cannot verify characteristics even after consuming them, e.g. production techniques (21, 22). The consumer is not able to assess credence attributes and makes choices on the basis of manufacturer’s indications. Stiglitz (20) emphasised that an absence of symmetric information results in imperfect forms of trading; actors who have more information use it to make their choices and affect market prices. For small and medium enterprises, certification in a EU quality scheme and labelling products are useful strategies which create value by reducing information asymmetry and preventing imitation. The intervention of an institution, such as the European Union, can guarantee the behaviour of producers. But other actors too can act as warrantors e.g. producer organizations and Consortia of PDO products, by using branding strategies. Producer organizations and PDO Consortia create the environment to exploit PDO/PGI products by defining specific production specifications

and also make information available to the stakeholders, including consumers (23, 24).

The coexistence of different quality brands in a PDO environment has been researched in several papers. Arfini (6) evaluated consumers WTP for Parma Ham and Parmigiano-Reggiano cheese displaying Consortium brand and/or PDO logo and found that the collective Consortium brand had a stronger and positive impact on consumer willingness to pay than the EU PDO logo. More recently, Dickinson and Heath (25) investigated “co-branding” as a marketing strategy<sup>4</sup> and consumers decision-making processes. They argue that co-branding makes it possible to transfer positive associations of quality attributes from a single brand to a multi-brand format. Co-branding strategy can bring big benefits in terms of reputation, market-place exposure, new promoting campaigns, and access to new markets. Van Ittersum et al. (27) observe how PGI/PDO labels enhance the economic performance of small or medium enterprises. They find that consumers of regional products are sensitive to PDO labels and have a positive attitude towards them, because they act as a quality warranty and support local economies.

## The case study

### *The Parma ham production system*

The Parma Ham production system has an important role in the local economy. Its production has an overall value of 740 million Euro a year, 237 million Euro of which are exported. In 2013, the production chain involved 150 ham processing companies, 4,199 pig farms and 130 slaughterhouses. In total, more than 3,000 people are employed in the processing phase and 50,000 in the whole production system. In 2013, international sales of PDO Parma ham accounted for 28% and national sales accounted for 72% (28).

The main institution of governance for the system is the Parma Ham Consortium. It was founded in 1963 on the initiative of 23 processing firms, with the aim of setting up a collective brand and running

<sup>3</sup>Important contributions on asymmetric information markets include Akerlof (17), Klein and Leffler (18), Shapiro (19) and Stiglitz (20).

<sup>4</sup>This strategy usually takes place in a cooperative framework assuming mainly the form of strategic alliances (26).

joint promotional activities. In 1996, Parma Ham was registered as a PDO product<sup>5</sup>. A code of specifications defines rules of production and criteria for the products to be met by all the actors of the Parma Ham production system. A comprehensive labelling system acts as a quality guarantee for the final product (PDO ham) and in each step of the production process (farmer, slaughterhouse and firm seals, the PDO logo and Parma Crown, which is the Consortium logo<sup>6</sup>).

Nowadays, PDO Parma Ham Consortium plays a leading role in the evolution of the code of specifications, research and development, collective marketing strategies and communication, aimed at managing the world-wide reputation of the collective brand (29, 30).

Over the last decade, the extremely positive trend of the pre-sliced PDO Parma ham has been confirmed by the data: in 2013, 73 million packs were sold, 17 million of which in Italy and 56 million packs abroad (28). According to the code of specifications, Parma crown brand is on the tray in the left top corner together with the PDO logo, the processor's name and the certificate of Parma Quality Institute<sup>7</sup>. The PDO producer manages the remaining space, with the constraint of the transparent area through which the ham can be seen by the consumer.

### *Method*

Much literature on the Contingent Valuation Method (CVM) is available. Initially, it was mainly used in the United States (31); and subsequently became more common in Europe (32-36).

The CVM consists of interviewing a sample number of consumers / users who are presented with detailed information about a basic scenario and a hypothetical variation to it. In other words, they are asked how much they would be willing to pay for a benefit, represented in the hypothetical scenario. According to the hypoth-

esis, the average user/consumer is expected to express a WTP for the improvement. The objective of the CVM is to define demand prices, that is, the price that would be obtained if there were a real market for the good. The methodology is best applied when goods that can improve an individual's use do not have an explicit market price, such as public goods. If the user is willing to pay more for the benefit presented in the hypothetical scenario, price is increased up to the limit price that the user is willing to pay. WTP for the improvement of one's well-being level is a key indicator of consumer behaviour, which can represent sensitivity towards a given good, under the constraint of a budget limit<sup>8</sup>.

### *The empirical analysis*

The objective of the research was twofold: 1) to estimate the monetary value of the information about brands; 2) to estimate the value of co-branding.

Two versions of a questionnaire including photographs were developed. The first provided written information on pictured brands and the second one did not (Fig. 1).

In total 185 questionnaires (97 with full information and 88 without full information on brands) were distributed to Post graduate students of Medicine at the University of Parma in 2014. For the purposes of this paper, one part of the questionnaire only is described here, i.e. the section on the evaluation of the economic value of information and different brand combinations<sup>9</sup>.

CVM was here applied in the opposite way to that described above. Usually the first stage is a starting price for the basic scenario which is increased according to the increasing utility of the hypothetical scenarios. We however started with a real market price (basic scenario) and asked what percentage reduction of the price would be accepted if one or more brands were omitted (hypothetical scenarios). This method allowed us to break up full price into its components and extrapolate the value attributed by consumers to one or more brands.

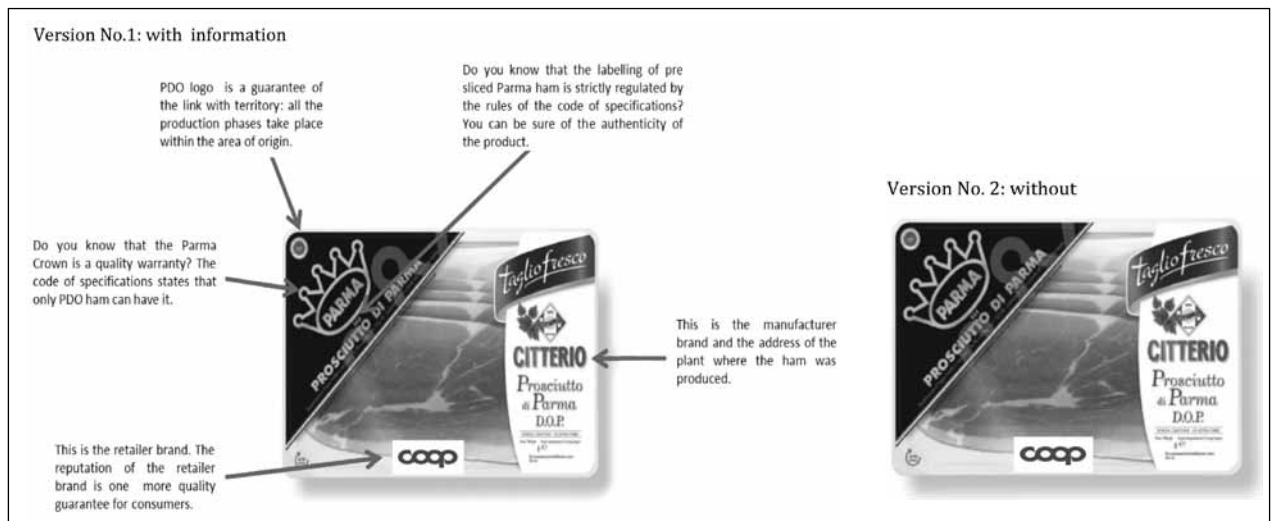
<sup>5</sup>In compliance with Regulation No 2081/92.

<sup>6</sup>Before Regulation (EEC) No.2081/92, Consortium of Parma Ham was the owner of the collective brand "Consorzio del Prosciutto di Parma" and its logo, and was entirely responsible for its use. With PDO registration, the brand was registered within the EU Production Regulation system (Door database) and is now therefore a "public good" in the same way as the PDO designation.

<sup>7</sup>Parma Quality Institute (PQI) is the second most important actor in the Parma Ham production system. It inspects the compliance of producers with the code of specifications, from pig breeding to the distribution, including the use of logos and marks.

<sup>8</sup>There is however controversy on the reliability of this method. A critical in-depth investigation on the subject is included in Bishop and Romano (35) and Scarpa and Bravi (37) to which the reader may refer.

<sup>9</sup>The questionnaire was divided into four areas: i) personal information, ii) attitude to Parma ham and related brands iii) understanding of different brands; and iv) the monetary value of different brand combinations.



**Figure 1.** Pre sliced Parma Ham packs, with and without explicit information.

In total, three brands were displayed on the trays: Consortium logo (Parma Crown) associated with the PDO logo; one retailer brand (Coop-Italia); one Parma Ham processor brand (Citterio).

Respondents were asked to tick how much less they would pay if the pack did not display one/two brands.

The price of the basic scenario (tray displaying all brands) was set at € 6.00 (Fig. 2); the respondent was invited to choose lower prices<sup>10</sup>: -0%; -5%; -10%; -15%; -20%; -25% for five different hypothetical scenarios (Fig. 3).

The difference between the starting price and the lower price represents the monetary value of the brand(s) which has(have) been taken off.

The value of information asymmetry is assumed as price differences between WTP of the respondent having explicit information on the brands and WTP of the respondent without explicit information.

## Results and discussion

Results show the synergic effect of the co-branding strategy. The WTP for PDO-Parma Crown is set, on average<sup>11</sup>, at € 0.90 per pack when the PDO- Parma



**Figure 2.** Basic scenario, displaying all brands.






Crown brands are “alone”. It reaches € 1.14 when associated with a well-known ham processor company (Citterio). But WTP for PDO-Parma Crown + Coop-Italia combination is lower, both for informed consumers (€ + 0.97) and non-informed consumers (€ + 0.87).

It is interesting to note that the absence of the PDO-Parma Crown decreases the WTP for the food tray. The combination of Citterio + Coop-Italia reduces the value of the ham to € + 0.75 (for informed consumers) and to € + 0.71 (for non-informed consumers). A similar value (€ 0.75) is given when Coop-Italia brand is “alone” (Table 1).

<sup>10</sup>The methodology assumes that respondents are not willing to pay above the initial starting price for packages displaying fewer brands.

<sup>11</sup>These figures are the average of those supplied by respondents.

As far as the impact of information on the value creation process is concerned, a significant WTP (+ € 0.10) is expressed for Coop Italia + PDO-Parma

	Hypothetical scenario	Omitted brands
1		PDO – Parma Crown
	<i>Citterio + Coop Italia</i>	
2		Citterio + PDO – Parma Crown
	<i>Coop Italia</i>	
3		Coop Italia+ PDO – Parma Crown
	<i>Citterio</i>	
4		Citterio + Coop Italia
	<i>PDO-Parma Crown</i>	
5		Coop Italia
	<i>PDO-Parma Crown + Citterio</i>	

**Figure 3.** Hypothetical scenarios

Crown combination. For consumers shopping at Coop-Italia, more information justifies a higher WTP. At the same time, additional information on the PDO-Parma Crown brand does not change the opinion of the respondents about the value of the PDO-Parma Consortium. Similarly, additional information on processors does not change the value, probably because manufacturers have a well-established reputation. Thus, information does not play an active role when PDO + Parma Ham and national processor brands are involved.

## Conclusions

The purpose of the paper was to investigate the impact of information and co-branding strategies on consumers WTP for PDO agri-food products. To this end, the Contingent Valuation Method was used to pre-sliced PDO Parma ham to evaluate WTP for pre sliced Parma Ham packages displaying different combinations of brands. Two samples of consumers were interviewed: the first had explicit information on brands, and the second did not.

The results show that typical products take advantage of European quality schemes and the process of reputation building promoted by collective organizations. Brand reputation of collective organizations can thus be a tool to increase the reputation of single manufacturer companies that belong to collective quality systems and accept collective rules. At the same time, retailers can take advantage of co-branding strategies with such organisations in order to provide consumer information. Value creation is thus linked to the man-

**Table 1.** Average value of WTP for brands, with and without information (€).

	WTP w/o info (2)	WTP w/info (3)	WTP (4)=(3)-(2)
PDO-Parma Crown	0,91	0,9	-0,01
Citterio plus PDO-Parma Crown	1,17	1,14	-0,03
Coop-Italia plus PDO-Parma Crown	0,87	0,97	0,1
Citterio plus Coop-Italia	0,71	0,75	0,04
Coop-Italia	0,69	0,75	0,06

*Source: authors elaborations*

agement capability of single and collective organizations in developing alliances and creating effective co-branding strategies.

The case study leads to the conclusion that for well reputed specialty products, the process of value adding is positively influenced by brands guaranteeing the link with the territory through European quality schemes, or association or producer brands rather than through private labels. Such schemes may thus be a key element in competition for producers against the contractual power of large retailers. This is a result that may serve to European policy makers when supporting producer organizations.

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