

Green Country-of-Origin Image:
Unpacking the Role of Knowledge in Italian Consumers Evaluations

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Abstract

Context: In recent years, sustainability has emerged as a critical driver of consumer behaviour, reshaping expectations in global food markets and affecting the image of countries too. Within this landscape, Italian food products represent an iconic category: they are internationally valued for their quality, authenticity, and cultural heritage, while also serving as a benchmark for premium and traditional agri-food goods. This dual symbolic and economic significance makes them an ideal setting for analyzing how environmentally focused country-of-origin cues, conceptualized as Green Country-of-Origin Image (GCOI), shape consumer decisions.

Purpose: This study examines the mediating role of Knowledge of Italian food products (KNOW) in the relationship between Green Country-of-Origin Image (GCOI) and Intention to Buy (INTB) and Willingness to Pay (WTP), with a particular focus on Italian food products among German consumers.

Data: Primary research data were gathered through a survey based on the administration of an online questionnaire targeting a convenient sample of German consumers, applying structural equation modelling to assess the intention to buy and willingness to pay for Made in Italy food products.

Results: Findings evidenced the goodness of the proposed model (PLS-SEM), which revealed that KNOW significantly mediates the relationship between GCOI and INTB or WTP, with a stronger mediation effect observed for the first one. Additionally, the results demonstrate that GCOI has a positive direct impact on KNOW that, in turn, exerts a direct effect on INTB and WTP respectively.

Originality: This study contributes to the international marketing and consumer behaviour literature, highlighting the central role of Knowledge of food products in transforming a country image perception into consumer's purchase intentions.

Implications: This empirical research holds significance for marketers and scholars alike, through the added value of sustainable food perceptions and knowledge.

Key Words: Green Country-of-Origin Image (GCOI), Intention to Buy (INTB), Willingness to Pay (WTP), Consumer's Knowledge of Food Products (KNOW), International marketing.

1. Introduction

Italian food products are globally recognized for their quality, authenticity, and cultural heritage, making them a benchmark for premium agri-food goods. Their reputation as symbols of tradition and craftsmanship gives them a distinctive competitive advantage in international markets. At the same time, environmental sustainability has become a critical driver of consumer choices worldwide, with growing demand for products that embody environmentally responsible production practices.

Although research on Country-of-Origin (COO) effects and sustainability in food marketing is extensive, these streams of literature have largely developed in parallel. The interplay between environmentally focused COO perceptions - what we define as *Green Country-of-Origin Image (GCOI)* - and consumers' purchasing behaviour has not been systematically explored. Moreover, the mechanisms through which favourable perceptions of green origin cues are translated into behavioural outcomes remain underexamined.

This study addresses these gaps by testing a model in which *Knowledge of Italian Food Products (KNOW)* mediates the relationship between GCOI and two key behavioural indicators: *Intention to Buy (INTB)* and *Willingness to Pay (WTP)*.

This research extends COO theory and contributes to the international marketing and consumer behaviour literature. It offers insights into how sustainability perceptions of the COO and consumer knowledge interact to shape purchasing intentions and price sensitivity, providing value both for scholars studying consumer behaviour and for marketers seeking to leverage sustainability and origin as strategic assets.

2. Conceptual Framework and Research Hypotheses

Made in Italy food products represent one of the strongest symbols of Italian cultural identity and enjoy a distinctive reputation in international markets. Extant literature on the topic has shown that familiarity and knowledge about Italian products enhance consumers' positive evaluations and willingness to pay premium prices: building product knowledge among international consumers increases their likelihood of purchasing authentic Italian foods (Ricci et al., 2019). Moreover, extant literature shows that consumers frequently associate sustainable food with environmentally friendly production practices, ethical sourcing, local and transparent supply chains, and reduced ecological impact. These features are not abstract ideals, but tangible attributes that help consumers evaluate whether a product meets sustainability expectations (van Bussel et al., 2022). In addition, behaviour-based studies reveal that environmentally conscious attributes are associated with willingness to pay premiums (Nakavachara et al., 2025).

Together, these findings suggest that environmental considerations are no longer peripheral attributes but integral elements that shape food choice decisions globally, both at the attitudinal level (what consumers believe a sustainable product is) and at the behavioural/economic level (what they are willing to buy and to pay more for). For food categories already associated with strong cultural and quality cues, such as Italian foods, studying how sustainability perceptions intersect with origin offers a richer understanding of consumer behaviour.

Literature suggests that at the micro level (Ahmed et al., 2004), the Country-of-Origin (COO) serves as a quality heuristic: in presence of limited information, consumers use origin cues to infer attributes such as authenticity, quality, freshness, food safety, or even ethical or traditional practices. In food contexts, this heuristics role has been widely documented in academic literature (Newman et al., 2014; Thøgersen et al., 2018).

For the purposes of the present study, only the micro dimension of Country-of-Origin (COO) is considered. Rather than addressing Italy's overall national reputation, the focus is placed on consumer perceptions of Italian food products specifically in terms of their environmental or

green characteristics. By combining origin cues with perceptions of sustainability, the analysis moves beyond a generic green product evaluation to a construct that integrates provenance and environmental responsibility, namely: Green Country-of-Origin Image (GCOI), defined as consumers' perception of the environmental sustainability of Italian food products, shaped by production practices associated with Italy as their country of origin.

Understanding the behavioural consequences of such perceptions requires focusing on outcomes that capture consumers' actual purchase intentions (INTB) and economic commitments, that is: Willingness to Pay (WTP). Examining these two outcomes makes it possible to assess whether a favourable Green Country-of-Origin Image of Italian food products translates into concrete purchasing behaviour and monetary value, rather than remaining at the level of abstract attitudes.

INTB refers to a consumer's intention to purchase a specific product under given circumstances and is widely employed as a proxy for purchase behaviour in consumer research (Ajzen, 1991; Homburg et al., 2005). WTP is defined as the maximum price a consumer is prepared to pay for a product with particular attributes, such as environmentally friendly production methods, and is frequently used to evaluate the perceived value of premium products (Zhan et al., 2025). In food and green marketing contexts, previous studies have demonstrated that environmental attributes, eco-labels, and credible origin information positively influence both INTB and WTP, as consumers associate these cues with quality, safety, and ethical production standards (Taufique & Vaithianathan, 2018).

Beyond sustainability attributes, evidence confirms that favourable COO perceptions significantly increase consumers' purchase likelihood (Verlegh & Steenkamp, 1999; Rezvani et al., 2012), operating as powerful signals of quality and trust. Koschate-Fischer et al. (2012) further demonstrate that products linked to a favourable country image elicit higher WTP than equivalent goods from less reputable origins. In the context of Italian food, this suggests that a positive perception of Italy as the country of origin, particularly when combined with environmentally responsible practices, can amplify both INTB and WTP. To explain how such perceptions are converted into behaviour, the concept of product knowledge becomes central. Classic consumer research defines product knowledge as the combination of familiarity, described as the experience accumulated with a product category, and expertise, the ability to process and evaluate product-related information (Alba & Hutchinson, 1987; Brucks, 1985). Knowledge encompasses both objective understanding (e.g., information about ingredients, production methods, or authenticity cues) and subjective confidence in one's understanding of the category.

In the context of Italian food, greater knowledge equips consumers to interpret environmental and origin cues accurately, assess their credibility, and connect them with tangible product qualities. When consumers recognize Italian food products as authentically produced according to environmentally responsible practices, they are more likely to convert positive perceptions into concrete behavioural outcomes.

In light of this reasoning, Knowledge of Italian Food Products (KNOW) is introduced in the model as a mediating variable, capturing the mechanism through which a favourable GCOI is translated into behavioural outcomes such as INTB and WTP.

To sum up, while previous research has examined the influence of COO cues on product evaluations, purchase intentions, WTP, and has explored sustainability as a driver of food consumption, these streams of literature have rarely been integrated. To our knowledge, studies have not yet systematically considered environmentally focused COO perceptions (i.e.: GCOI), in the context of Italian food products, nor have they clarified how product knowledge mediates the link between green origin cues and behavioural outcomes.

Addressing this gap, the present study investigates whether a favourable GCOI influences INTB and WTP for Italian food products (as developed by Cappelli et al., 2020), and whether

knowledge of Italian food products acts as a mediating mechanism in this process. The contribution lies in (i) proposing and testing the GCOI construct as a novel perspective on sustainability and origin effects, (ii) clarifying the behavioural mechanisms (INTB and WTP) through which these perceptions operate, and (iii) highlighting the critical role of consumer knowledge in converting these perceptions into concrete economic behaviour.

Accordingly, the following hypotheses are proposed:

- **H₁**: GCOI directly and positively influences Knowledge of Italian Food Products (KNOW).
- **H₂**: KNOW directly and positively influences INTB.
- **H₃**: KNOW directly and positively influences WTP.
- **H₄**: KNOW acts as a mediator between GCOI and INTB.
- **H₅**: KNOW acts as a mediator between GCOI and WTP.

3. Data and research model

This study focuses on the perception of Italian Food Products among German consumers by analyzing primary data collected through an online questionnaire administered via Google Forms. The survey was conducted in December 2024 and January 2025. The questionnaire was translated in the German language and a total of 87 completed records were included in the final analysis.

The respondents were mainly women (73.6%) and young adults (67.8% were between 18 and 35 years old). The majority of them had a good education level (23% owned a Bachelor's Degree, 34.5% a Master's Degree and 11.5% a Post Graduate Degree) and stated to be employed (77.01%).

Due to the low number of observations, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed for the empirical analysis as it is a distribution-free method that relies on the non-parametric bootstrap (Venturini and Mehmetoglu, 2019).

Figure 1 illustrates the theoretical model and the framework for the empirical analysis.

[Figure 1 here]

4. Empirical analysis and findings

Starting from the measurement model results, the standardized loadings and their p-values provide evidence of robust convergent validity and internal reliability. Factor loadings exceeding the threshold of 0.70 (Hair et al., 2010) and statistically significant coefficients demonstrate a robust relationship between the items and their corresponding latent constructs. For what concerns the measures of internal consistency reliability, Cronbach's alpha always exceeds the threshold of 0.6, denoting a very good level of internal consistency of the chosen indicators. In addition, Composite Reliability (CR) is above 0.7, confirming "satisfactory to good" reliability levels (Hair et al., 2017a), as well as the reliability coefficient (Table 1).

[Table 1 here]

Switching to the structural model, the convergence validity is assessed by the Average Variance Extracted (AVE) across all items associated with a latent construct. The AVE is higher than the recommendation of 0.5 for all the latent variables, meaning that they explain more than 50% of the variance of their items (Hair et al., 2017a, 2017b).

GCOI has a statistically significant and positive effect on KNOW with $\beta = 0.364$, confirming H₁: positive GCOI is associated with a positive level of familiarity for those products.

In addition, KNOW is significantly and positively associated with both INTB and WTP (H₂: $\beta = 0.522$ and H₃: $\beta = 0.454$, respectively), therefore having a good knowledge and being

familiar with Italian food products enhances the willingness to pay and, especially, the intention to buy.

Furthermore, the empirical analysis confirmed the mediating role of KNOW in the relationships between GCOI and INTB or WTP, respectively. However, the mediated effect is higher for the INTB ($H_4: \beta = 0.190$), rather than WTP ($H_5: \beta = 0.165$).

This result indicates that a high level of knowledge and familiarity with Italian food products enhances real purchase through the lens of sustainability.

Table 2 shows the relationships at work for the structural model.

[Table 2 here]

5. Discussion and conclusions

The empirical analysis confirms that GCOI exerts a positive and significant direct influence on the formation of KNOW that, in turn, exerts a positive and statistically significant impact on consumer's INTB or WTP. KNOW emerges as a key mechanism that channels environmental origin cues into concrete outcomes. This finding suggests that COO effects in the sustainability context are not merely perceptual shortcuts, but rely on consumers' ability to decode and validate the information signalled by origin cues. As a matter of fact, findings confirm that KNOW fully mediates the relationship between GCOI and INTB and WTP respectively, demonstrating the role that knowledge and familiarity play in the formation of consumer's intentions. Results underscore that green provenance cues are most powerful when embedded within informed consumer contexts, providing a more nuanced understanding of how sustainability and cultural heritage jointly shape food choice behaviour. From a theoretical standpoint, this research extends COO theory by isolating and testing its environmental dimension. Whereas prior studies typically treated country image and sustainability as separate constructs, the integration of GCOI into a micro-level COO framework clarifies how provenance and environmental responsibility interact. By demonstrating that knowledge mediates the GCOI–INTB/WTP relationship, the study refines understanding of extrinsic cues: COO is not a static halo, but a signal whose strength depends on the cognitive resources and familiarity consumers bring to the evaluation process. This contributes to sustainable marketing literature by showing that green cues are not uniformly processed, even when associated with reputable origins like Italy.

Findings also offer managerial implications: marketers of Italian food products cannot assume that highlighting environmental attributes or country of origin alone will drive sales or justify price premiums. Efforts to educate consumers, for instance through transparent communication about production practices, storytelling, or certification schemes, may strengthen product knowledge and, consequently, the impact of GCOI. This is particularly relevant in foreign markets, where familiarity with Italian food traditions may vary widely.

However, several limitations should be acknowledged. The study focuses on Italian food in a single market context, which may limit generalizability to other product categories or cultural settings. In addition, the cross-sectional design captures associations rather than causal dynamics: future research could employ experimental or longitudinal approaches to verify causality and explore potential boundary conditions. Expanding the analysis to other product categories or origins would also clarify whether the mediating role of knowledge is unique to culturally iconic foods or generalizable across markets.

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Tables and figures

Figure 1. The conceptual model of the study

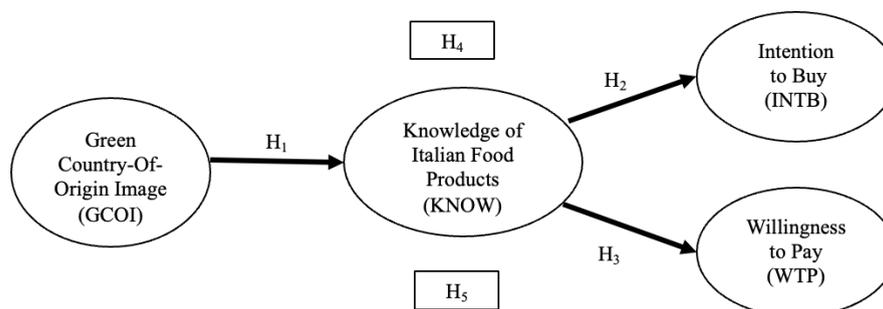


Table 1. Measurement Model Results (items and factor loadings)

Latent Constructs	Items	Standardized Factor Loadings	
Green Country-of-Origin Image (GCOI)	1. I think Italian food products are environmentally friendly.	0.956	Cronbach: 0.931 CR: 0.955 Rho_A: 0.987 AVE: 0.876
	2. I consider Italian foods as produced in a way respectful of the environment.	0.969	
	3. I believe that foods produced in Italy are greener.	0.880	
<i>Seven-point Likert-scale ranging from 1 (strongly disagree) to 7 (strongly agree).</i>			
Knowledge of Italian Food Products (KNOW)	1. My overall level of knowledge of Italy food products is high.	0.968	Cronbach: 0.925 CR: 0.964 Rho_A: 0.931 AVE: 0.930
	2. I am familiar with Italian food products.	0.961	
<i>Seven-point Likert-scale ranging from 1 (very low) to 7 (very high).</i>			
Intention to Buy (INTB)	1. I am willing to buy Made in Italy food products while shopping.	0.775	Cronbach: 0.835 CR: 0.898 Rho_A: 0.901 AVE: 0.747
	2. Next time I'll go shopping for food, I intend to buy food products Made in Italy.	0.886	
	3. I am keen in buying food products produced in Italy in the future.	0.925	
<i>Seven-point Likert-scale ranging from 1 (strongly disagree) to 7 (strongly agree).</i>			
Willingness to Pay (WTP)	1. I do prefer Made in Italy food products even if they are more expensive.	0.942	Cronbach: 0.871 CR: 0.939 Rho_A: 0.871 AVE: 0.886
	2. I think it is justified that Made in Italy food products are more expensive.	0.941	
<i>Seven-point Likert-scale ranging from 1 (strongly disagree) to 7 (strongly agree).</i>			

Table 2. Structural Model Results

Relation	β	Hypothesis
H ₁ : GCOI → KNOW	0.364***	Accepted
H ₂ : KNOW → INTB	0.522***	Accepted
H ₃ : KNOW → WTP	0.454***	Accepted
H ₄ : GCOI → KNOW → INTB	0.190*	Accepted

$H_5: GCOI \rightarrow KNOW \rightarrow WTP$	0.165*	Accepted
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Note: *p < 0.05, **p < 0.01, ***p < 0.001