Country Image and Willingness to Buy:
The Mediating Role of Green Product Image in Consumers Perceptions

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Abstract

This study examines the mediating role of Green Product Image (GPI) in the relationship between Country Image antecedents – namely: Affective Country Image (ACI) and Cognitive Country Image (CCI) – and consumer Willingness to Buy (WTB), with a particular focus on Italian food products among Indian consumers. The analysis, which was conducted using structural equation modelling (SEM) on data from 175 respondents, revealed that GPI significantly mediates the relationship between ACI, CCI, and WTB, with a stronger mediation effect observed for ACI. Additionally, the findings indicate that ACI exerts a more pronounced influence on GPI in comparison to CCI. Furthermore, the results demonstrate that GPI has a substantial direct impact on WTB, highlighting its central role in transforming favourable country image perceptions into consumer purchase intentions. This study contributes to the existing literature by elucidating the way in which perceptions of a country's environmental image impact consumer behaviour. From a managerial perspective, the findings indicate that companies should prioritise both the emotional appeal and environmental attributes of their products in their marketing strategies. It is recommended that future studies investigate these relationships in cross-cultural contexts with larger and more diverse samples to further validate the results.

Keywords: *Green Product Image (GPI), Affective Country Image (ACI), Cognitive Country Image (CCI), Willingness to Buy (WTB), Structural Equation Modelling (SEM), Consumer behaviour.*

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1. Introduction

In recent years, there has been an increase in consumer awareness of the ecological implications of their purchasing decisions (Zhang & Dong, 2020). An enhanced sustainability awareness and psychological factors have been identified as key drivers behind this change, leading to a stronger emphasis on eco-friendly products (Viet et al., 2023; Areola et al., 2022). The growing focus on sustainability is having a significant impact on industries such as fashion and food, where consumers are increasingly inclined to purchase products that have been certified as environmentally friendly and sustainable (Mota-Gutierrez, 2024). Consequently, very recently the concept of Green Product Image (GPI) has started to emerge in the context of international marketing. GPI emphasises the environmental image associated with products originating from a particular country (Thøgersen & Pedersen, 2021).

The Country Image (CoI) has been demonstrated to exert a considerable influence over consumer perceptions and purchasing behaviours. This may be categorised into two distinct levels: firstly, the macro-level, representing the overall perception of a country; and secondly, the micro-level, pertaining to the perceptions associated with specific product categories. Research findings indicate a significant interplay between these two dimensions in shaping purchase intentions, particularly across different product types (Almousa et al., 2018; Jin et al., 2018).

The Product Country Image (PCoI) has been identified as a pivotal factor in international marketing, with the capacity to significantly influence consumer perceptions and behaviours (Kurmangali, 2019). As defined by Yang (2017), PCoI can be described as consumers' evaluation of the country where a product is manufactured or designed. It is a multifaceted construct that encompasses both recognition and perception of a country's products (Lin et al., 2019). The influence of PCoI on consumer purchase decisions is evidenced by its capacity to shape brand evaluation, commitment, and general impressions (Oduro, 2023).

Building on the increasing sensitiveness to green issues by the society as a whole, an increasing number of businesses are starting using the GPI in their marketing strategies, with a particular focus on emphasising environmental sustainability in their branding and communication efforts. This includes the promotion of eco-friendly practices, renewable sourcing, and sustainable production methods to improve their GPI (Wu et al., 2019). But only recently a few empirical studies have demonstrated the existence of a positive relationship between GPI and purchase intentions, particularly among consumers who are environmentally conscious (Lee, 2020). This highlights the significance of integrating GPI into marketing strategies.

Furthermore, the effect of GPI can have an impact on brand image and purchase intentions. The available evidence suggests that CoI has a significant impact on the formation of brand images, thereby underscoring the pivotal role of GPI in influencing consumer perceptions (Hiến et al., 2020). Additionally, the alignment of core brand image characteristics with the

country image has been shown to enhance brand equity indicators, thus indicating potential benefits of incorporating GPI into brand strategies (Mariutti et al., 2017).
Despite the growing interest in environmental sustainability, there is a paucity of studies that have focused on the concept of GPI, as Lee (2020) observed. While the Green Country Image (GCoI) has been linked to consumer trust and loyalty, GPI has not been explored to the same extent. For example, it is important to emphasise the significance of consumer-based green brand equity, which is closely associated with GCoI. This reflects the growing consumer awareness of environmental issues (Khandelwal et al., 2019). This suggests that GCoI has been the subject of greater investigation than GPI, which has not been as carefully integrated into international marketing studies. Hence, the principal objective of this study is to examine the role of GPI as a mediator in the relationship between the main traditional antecedents of CoI – namely: Affective Country Image (ACI), Cognitive Country Image (CCI) – and Willingness to Buy (WTB). To the best of our knowledge, no studies have explored the role of GPI as a mediator, and this study aims to contribute to the existing body of knowledge concerning sustainable consumption in the field of international marketing.
The structure of this paper is as follows: the second section presents the conceptual framework and explains the research hypotheses. The third section provides a detailed explanation of the methodology of the study. The fourth section presents and analyses the research findings. The fifth section interprets the findings in the context of the existing literature and discusses both theoretical and managerial implications. Finally, the sixth section presents the conclusions, addresses the limitations of the study and suggests directions for future research.

2. Conceptual Framework and Hypotheses

2.1 Green Country Image and Green Product Image

To ensure clarity, it is necessary to differentiate between the concept of GPI from the concept of GCoI. Both are fundamental to the comprehension of consumer behaviour and international marketing strategies; however, they represent distinct aspects of environmental perception in the context of country and product origin.
The concept of the GCoI refers to a nation's perceived and actual commitment to environmental concerns, sustainability practices, and eco-friendly initiatives. This image plays a significant role in influencing consumer behaviour, attracting investments, and enhancing a country's overall competitiveness (Rodiyah, 2023). The GCoI represents an extension of the larger concept of CoI, which includes the general perceptions related to the people, culture, and development standards of a country (Kurmangali, 2019; Lin et al., 2019). Conversely, the GPI is concerned with the environmental image associated with products originating from a particular country (Thøgersen & Pedersen, 2021). The concept of GPI is derived from the concept of the PCoI, which concerns consumers' evaluations of products based on their country of origin (Yang, 2017). The GPI places particular emphasis

on the environmental practices and sustainability credentials of the products originated in a certain country, with a direct impact on consumer trust and purchase intentions (Kanwal, 2024; Feng, 2023).

2.2 The role of the Affective and Cognitive Country Image

Roth and Diamantopoulos (2009) highlight that the construct of CoI is constituted by two essential elements: (1) the cognitive component, which encompasses consumers' beliefs about a country's attributes, such as its technological competence and environmental responsibility; and (2) the affective component, which reflects the emotional connections and values that consumers associate with the country. These dimensions are of significant importance in influencing consumer behaviour and informing international branding strategies. The extant literature demonstrates that the cognitive and affective dimensions of CoI significantly impact consumer perceptions of product quality, trust, and purchase intentions. For example, Kang and Kim (2018) demonstrate how both cognitive beliefs and emotional associations with a country can significantly impact consumer willingness to purchase foreign products. Further studies across a range of industries, including tourism (Li et al., 2014), electronics (Magnusson et al., 2014) and food products (Zilaie et al., 2016), have demonstrated that these CoI dimensions exert a significant influence on consumer preferences. Given their centrality in evaluating CoI, these components provide an optimal point of departure for exploring the related concept of GPI.

2.3 Conceptual model and research hypotheses

A positive ACI is of vital importance in enhancing the credibility and appeal of green initiatives and products originating from a certain country. The influence of environmental value and emotions on pro-environmental behaviour has been highlighted in numerous studies (Li et al., 2022). Moreover, it has been demonstrated that emotions play a relevant role in the relationship between individuals' intentions for pro-environmental collective actions (Aguilar-Luzón, 2023). These findings highlight the significant relationship between emotional perceptions and environmental behaviours and attitudes. The impact of green branding strategies on consumer behaviour has also been the subject of considerable investigation. Extant literature indicates that green branding can enhance consumers' willingness to pay (WTP) premiums for eco-friendly products, reflecting a positive relationship between green brand equity and consumer behaviour (Akturan, 2020). The establishment of an eco-friendly brand image is of critical importance for the enhancement of brand credibility, the improvement of perceived quality, and the reduction of perceived risk, all of which exert a positive influence on consumer behaviour (Akturan, 2018). However, only recently international marketing has started to consider environmental issues. Therefore, based on the preceding evidence, we propose the following hypothesis:

H1: Affective Country Image (ACI) positively impacts on Green Product Image (GPI).

Similarly, a robust CCI has the potential to reinforce the GCoI by fostering consumer trust. Feng (2023) emphasises that a country's competence and commitment to environmental responsibility are crucial in maintaining consumer trust, even in challenging contexts such as food safety incidents. It can be posited that positive cognitive evaluations of a country's environmental policies and practices can enhance its green image, which in turn can result in higher levels of consumer trust and purchase intentions (Lee, 2020). Further support for this proposition is provided by Köck et al. (2019) and Papadimitriou et al. (2015), who demonstrate that strong cognitive images have a positive effect on overall consumer perceptions and behaviours, thereby facilitating the development of a positive green image. In light of the above, we put forward the following hypothesis:

H2: Cognitive Country Image (CCI) positively impacts on Green Product Image (GPI).

The influence of GCoI on consumer WTB has been documented in academic literature. A favourable green image of a country has been demonstrated to significantly enhance consumer trust, perceived product quality and brand loyalty, all of which are critical drivers of purchase intentions (Feng et al., 2021). The advantages of a robust green brand image, when combined with elevated brand loyalty, exert a particularly powerful influence on consumer purchase intentions (Burhanudin, 2023; Rudzewicz & Strychalska-Rudzewicz, 2021). Furthermore, green marketing initiatives that emphasise sustainability assist in consolidating consumer trust, thereby reinforcing purchase intentions (Patidar, 2023). However, the role of the green image of the products originated from a country lacks significant evidence. In light of the aforementioned evidence, we propose to explore its role as follows:

H3: Green Product Image (GPI) positively impacts on Willingness to Buy (WTB).

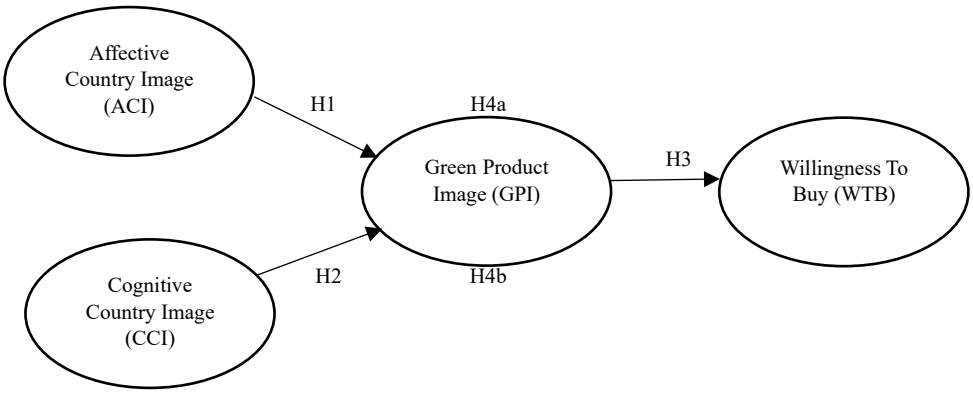
Despite extensive research on CoI, the products ecological dimension has often been overlooked (Lee, 2020). In light of the intricate and evolving nature of this construct within the domain of international marketing, it is fundamental to investigate the function of GPI as a mediator in the relationship between CoI components and consumer purchase intentions. In order to address this gap in the literature, we postulate the following hypotheses:

H4a: Green Product Image (GPI) mediates the effect of Affective Country Image (ACI) on Willingness to Buy (WTB).

H4b: Green Product Image (GPI) mediates the effect of Cognitive Country Image (CCI) on Willingness to Buy (WTB).

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

Figure 1. The conceptual model of the study.



3. Methodology

3.1 Data Collection and Sample

This study analyses the perception of Italian food products among Indian consumers. Italy is internationally renowned for its high-quality food industry. In recent years, economic interactions between Italy and India have intensified, as evidenced by high-level visits and robust political ties (Obiettivo India, 2022). Although Italian food products currently constitute a relatively minor component of India's food imports, their influence is rapidly expanding.

Concurrently, there is a growing awareness among Indian consumers of environmental issues and an increasing interest in sustainable consumption (Biswas & Roy, 2015; Jaiswal & Kant, 2018).

The primary data for this study were collected via an online questionnaire administered via Google Forms. The survey was conducted with a sample of Indian consumers during May and June 2023. The data were collected using popular social media platforms, such as Instagram and Facebook, thanks to the support of a colleague based in an Indian University. In recent years, the utilisation of social networks as a means of reaching the designated target audience has become a prevalent practice in consumer behaviour, as outlined by Ploll and Stern (2020).

The survey was conducted in English, a language with a high level of usage and comprehension across India. A total of 175 completed questionnaires were included in the final analysis. A comprehensive demographic profile of the sample is presented in Table 1.

Table 1. Description of the socio-demographic characteristics of the sample

Variable Name	Variables	N	%
Gender			
	Male	80	45.7
	Female	95	54.3
Age			
	18–24	37	21.1
	25–35	43	24.6
	36–50	42	24.0
	51–65	38	21.7
	>65	15	8.6
Education			
	High School	10	5.7
	Bachelor's Degree	90	51.4
	Master's Degree	48	27.4
	Post Graduate Degree	27	15.4
Employment			
	Full-time worker	77	44.0
	Part-time worker	34	19.4
	Student	34	19.4
	Household	7	4.0
	Retiree	17	9.7
	Unemployed	6	3.4
Religion			
	Hinduism	119	68.0
	Christianity	7	4.0
	Islam	40	22.9
	Sikhism	5	2.9
	Atheo	1	0.6
	Agnostic	2	1.1
	None	1	0.6
Family Member			
	1 member	2	1.1
	2 members	9	5.1
	3 members	51	29.1
	4 members	64	36.6
	5 or more	50	28.6

The sample is composed of 175 participants, with a moderately higher proportion of females (54.3%) compared to males (45.7%). This distribution aligns with trends observed in

consumer behaviour research, wherein women are frequently identified as the primary Food shoppers (De Canio & Martinelli, 2020; Hong et al., 2020).

The age distribution is quite balanced, with the slightly largest age groups being 25–35 years (24.6%) and 36–50 years (24.0%), followed by 18–24 years (21.1%), 51–65 years (21.7%), and a smaller proportion of individuals aged 65 and above (8.6%).

The level of education is notably high, with 51.4% of the population holding a bachelor's degree, 27.4% a master's degree, and 15.4% a postgraduate degree. A mere 5.7% of the sample completed high school. There is a considerable body of evidence to suggest that higher educational levels are often associated with greater environmental consciousness and more informed purchasing decisions (Brandão & Miranda, 2022; Bucur, 2023).

The employment status of the respondents was found to be diverse, with 44.0% indicating that they were employed on a full-time basis, 19.4% stating that they were employed on a part-time basis, and 19.4% indicating that they were students. The remaining respondents were either retired (9.7%), homemakers (4.0%), or unemployed (3.4%).

Most respondents identified as Hindu (68.0%), followed by Islamic (22.9%), Christians (4.0%), and other religions, including Sikhism (2.9%). A small percentage of respondents indicated that they are atheists (0.6%), agnostics (1.1%), or that they do not adhere to any religious affiliation (0.6%).

The size of the household in which the respondents reside varies, with the majority of respondents living in households comprising three to five members. The data indicates that 36.6% of respondents reside in households comprising four members, 29.1% in households with three members, and 28.6% in households with five or more members. The remaining 6.2% of the sample comprises smaller households of one or two members.

3.2 Measures of the structured questionnaire

The measurement items were derived from the existing literature and adapted to align with the context of this study. The items were measured using a 7-point Likert scale, ranging from "strongly disagree = 1" to "strongly agree = 7". All constructs were measured with three items, as detailed in Table 2.

Table 2. Items and factor loadings

Latent Constructs	Items	Standardised Factor Loadings	t-value
Willingness to Buy (WTB)	**1**. Could you please rate your level of agreement with the following statement: I am willing to buy Made in Italy food products while shopping	0.789	12.90
	2. Could you please rate your level of agreement with the following statement: Next time I'll go shopping for food, I intend to buy food products Made in Italy	0.967	17.84
	3. Could you please rate your level of agreement with the following statement: I'm keen in buying food products produced in Italy in the future	**1.00**	**N/A**
Green Product Image (GPI)	**1**. Could you please rate your level of agreement with the following statement: I think Italian food products are environmentally friendly	0.957	17.74
	2. Could you please rate your level of agreement with the following statement: I consider Italian foods as produced in a way respectful of the environment	**1.00**	**N/A**
	3. Could you please rate the following statement: I believe that foods produced in Italy are greener	0.846	15.25
Cognitive Country Image (CCI)	**1**. Could you please rate your level of agreement with the following statement: Italy offers high standards of living	**1.00**	**N/A**
	2. Could you please rate your level of agreement with the following statement: Italy has a welfare system	0.899	14.87
	3. Could you please rate your level of agreement with the following statement: Literacy rate is high in Italy	0.791	13.05
Affective Country Image (ACI)	**1**. What's your perception about Italian people? Are they trustworthy?	**1.00**	**N/A**
	2. What's your perception about Italian people? Are they hard-working?	0.957	15.28
	3. What's your perception about Italian people? Are they likable?	0.758	13.81

The table presents the standardised factor loadings and their t-values for each indicator associated with the latent constructs of the structural model. The indicators selected for each construct are the most representative and relevant, which ensures both parsimony and predictive accuracy. This selection is in accordance with the recommendations of Hair et al. (2010), who suggest that a limited but representative number of indicators enhances model reliability without compromising its effectiveness.

Factor loadings serve to measure the strength of the relationship between each observed indicator and the respective latent construct. In our model, certain indicators were assigned a value of 1 – the items are in bold on the table with the t-value omitted – to establish a scale for the respective constructs. In Structural Equation Modeling (SEM), both the factor loadings and the variances of the latent variables are initially unknown. In order to solve the model and ensure it is identified, at least one parameter must be fixed for each latent variable. One common approach is to fix a single factor loading to 1 for each latent variable. This allows the remaining parameters to be estimated in relation to this fixed value, thus ensuring that the model can be properly estimated (Klein & Moosbrugger, 2000). In order to define the scale of the latent constructs and to ensure that the model is statistically identifiable, this method is standard practice in SEM, without it, the model could have multiple equivalent solutions, leading to ambiguous results (Muthén, 2002). Fixing a loading at 1 allows for meaningful interpretation of other loadings and variances within the model (Graves & Merkle, 2021).

The standardised loadings and t-values in the model provide evidence of robust convergent validity and internal reliability. With loadings starting from 0.758 and t-values significantly exceeding the critical value of 1.96, the model evinces a robust relationship between the items and their corresponding latent constructs. As posited by Hair et al. (2010), loadings exceeding 0.70 are indicative of an excellent fit. The fact that all loadings in the model surpass this value provides strong evidence that the items accurately measure their intended constructs. Furthermore, the high t-values provide additional evidence for the statistical significance of these relationships, thereby reinforcing the model's robustness (Byrne, 2016).

3.3 Measurement Model Fit

The empirical analysis was conducted using the Lisrel 8.80 software (Jöreskog and Sörbom, 2006).

The robustness of the structural model can be evaluated through the application of a number of key fit indices, in addition to the interpretability of the parameter estimates. The model, with some factor loadings fixed at 1, displays notable robustness for several reasons. The Chi-Square to degrees of freedom ratio (Chi-Square/df) is 2.117, which indicates a good model fit. A ratio of less than 3 is typically regarded as a robust indicator of model adequacy, indicating that the model does not overfit the data (Kline, 2018). The Root Mean Square

Error of Approximation (RMSEA) is 0.075. A value of less than 0.08 for the RMSEA indicates that the approximation error is reasonable. This implies that the model fits the data closely in relation to its complexity (Browne & Cudeck, 1992). This indicates that the model exhibits a balance between fit and parsimony, avoiding unnecessary complexity. In terms of the Goodness of Fit Index (GFI) and the Adjusted Goodness of Fit Index (AGFI), the respective values are 0.916 and 0.864. A GFI value exceeding 0.9 is indicative of an optimal fit, while an AGFI approaching 0.9 provides further evidence of the adequacy of the model (Jöreskog & Sörbom, 1981). The Comparative Fit Index (CFI) exhibits a high level of fit, approaching a perfect score of 0.984. A CFI value approaching 1.00 is regarded as excellent, indicating that the model exhibits an excellent fit in comparison to a null model (Hu & Bentler, 1999). Furthermore, the Standardized Root Mean Square Residual (SRMR) is 0.041, which is below the threshold of 0.08, indicating minimal discrepancies between the observed data and the model's predictions (Hu & Bentler, 1999). Table 3 presents the goodness-of-fit indices of the model.

Table 3. Summary of the model fit indices

Fit Index	**Value**	**Interpretation**
Chi-Square / df	2.117	Good fit (acceptable < 3)
RMSEA	0.075	Good fit (acceptable < 0.08)
GFI	0.916	Good fit (≥ 0.9)
AGFI	0.864	Acceptable fit (close to 0.9)
CFI	0.984	Excellent fit (close to 1)
SRMR	0.041	Excellent fit (< 0.05)

Table 4 presents the values for Average Variance Extracted (AVE), Composite Reliability (CR), Cronbach's alpha (CRA) and the correlation matrix for the analysed constructs. The bolded diagonal entries represent the square root of the AVE for each construct and are higher than the off-diagonal correlation values, indicating strong discriminant validity.

Table 4. AVE, CR, CRA and Correlation Matrix

Latent Construct	**AVE**	**CR**	**CRA**	**Willigness**	**GPI**	**Cognitive**	**Affective**
Willigness	0.855	0.946	0.895	**0.924**	0.834	0.538	0.662
GPI	0.876	0.955	0.909	0.834	**0.936**	0.659	0.758
Cognitive	0.968	0.989	0.890	0.538	0.659	**0.984**	0.789
Affective	0.784	0.914	0.895	0.662	0.758	0.789	**0.886**

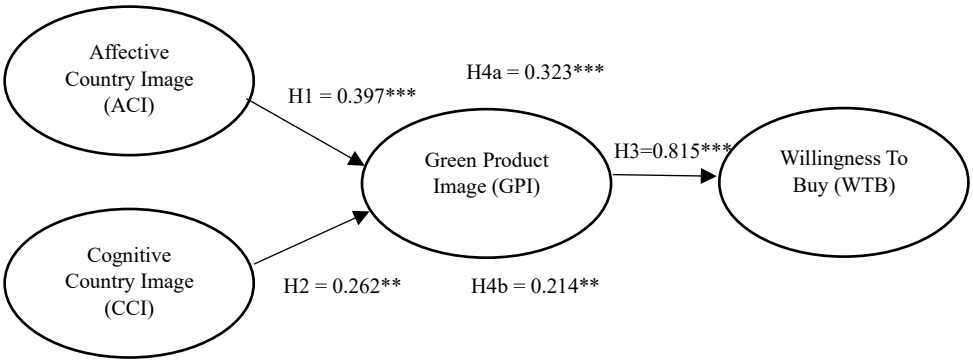
As posited by Fornell and Larcker (1981), discriminant validity is defined as a construct being established when the square root of the average variance extracted (AVE) for that construct exceeds the correlations between that construct and all others. As demonstrated, all values in bold (the square root of the AVE) satisfy this criterion, confirming the model's discriminant validity. Moreover, all AVE values exceed 0.5, and all CR values are above

0.7, reinforcing the model's convergent validity (Fornell & Larcker, 1981). The calculated CRA values indicate a high level of internal consistency across all constructs. Each construct exceeds the commonly accepted threshold of 0.70, indicating that the scales employed are both reliable and well-designed for measuring their respective constructs (Henseler et al., 2014).

4. Results of the structural model

A structural model was developed for the purpose of evaluating the relationships among ACI, CCI, GPI and WTB. The model examines both the direct effects between the variables and the mediating role of GPI in the relationships between ACI, CCI, and WTB. The results demonstrate a robust predictive capacity for the intention to buy products associated with a GPI, with an R^2 value of 0.669 for WTB and 0.443 for GPI. These findings indicate that the latent variables ACI and CCI account for a notable proportion of the variance in GPI, which in turn explains a considerable amount of the variance in WTB.
Figure 2 illustrates the structural model results and the relationships between the latent constructs.

Figure 2. Structural model results and paths among latent constructs



Note: *p < 0.05, **p < 0.01, ***p < 0.001

The results provide support for the first three hypotheses posited by the model. The ACI has a significant positive effect on the GPI [H1: $\beta = 0.397$, $t = 4.05$], confirming that positive emotions associated with a country positively influence the ecological perception of its products. Similarly, CCI has a significant positive effect on GPI [H2: $\beta = 0.262$, $t = 2.97$], indicating that rational knowledge and beliefs about a country enhance the perception of its products' sustainability.

Furthermore, GPI has a significant positive effect on the WTB [H3: β = 0.815, t = 9.75]. This finding confirms the hypothesis that a sustainable and green perception of a CoI increases consumer propensity to buy products from that country.

The analysis confirmed the full mediator role of the GPI in the relationships between ACI, CCI, and WTB. This conclusion is drawn from the observation that the direct effects of ACI and CCI on WTB are not statistically significant (β = -0.025, t-value = -0.289 for ACI; β = 0.007, t-value = 0.075 for CCI), whereas the indirect effects through GPI are significant.

In accordance with the framework established by Baron and Kenny (1986), full mediation is defined as a situation in which the direct effect of the independent variable on the dependent variable becomes non-significant when the mediator is included in the model. This outcome indicates that the mediator fully explains the relationship between the independent and dependent variables. Furthermore, when the indirect effect is found to be statistically significant, while the direct effect is not, this represents evidence of indirect-only mediation or full mediation, as defined by Hair et al. (2021). This is in alignment with the proposed theoretical model.

Therefore, the GPI acts as a mediator in the relationship between the ACI and the WTB [H4a: indirect β = 0.323, t = 3.73]. This indicates that a positive affective perception of a country enhances interest in purchasing products through the lens of sustainability. The mediating effect of GPI between CCI and WTB is also positive and significant [H4b: indirect β = 0.214, t = 2.85], indicating that cognitive beliefs about a country enhance the perception of sustainability, which in turn increases the WTB. However, the mediated effect of CCI on WTB is weaker than that of ACI, suggesting that emotions play a more prominent role than rational beliefs in determining the WTB of sustainable products. Table 5 shows the relationships and the levels of significance of the structural model.

Table 5: Summary of relationships and significance levels of the structural model

Relation	β	t-value	Significance Level	Hypothesis
H1: ACI → GPI	0.397	4.05	***p < 0.001	Accepted
H2: CCI → GPI	0.262	2.97	**p < 0.01	Accepted
H3: GPI → WTB	0.815	9.75	***p < 0.001	Accepted
H4a: ACI → GPI → WTB	0.323	3.73	***p < 0.001	Accepted
H4b: CCI → GPI → WTB	0.214	2.85	**p < 0.005	Accepted

Note: *p < 0.05, **p < 0.01, ***p < 0.001

5. Discussion

The present study has confirmed that both ACI and CCI exert a significant influence on the formation of a GPI, which in turn exerts a strong impact on consumer WTB. The results demonstrate that the GPI fully mediates the relationship between WTB and ACI and CCI,

highlighting the distinct roles that emotions and rational beliefs play in the formation of consumer intentions.

The study makes a contribution to the existing literature by demonstrating the asymmetry between cognitive and affective country images in their impact on purchase intentions. The significant impact of ACI on GPI provides additional evidence in support of the notion that emotional associations are a key determinant of consumer perceptions and behaviour (Li et al., 2014). The observed substantial mediation of GPI between ACI and WTB is consistent with the theoretical proposition that affective responses are a central driver of consumer loyalty and the promotion of sustainable practices (Hartmann & Apaolaza-Ibáñez, 2012).

In comparative terms, while CCI exerts a positive effect on GPI, its influence is less pronounced. This finding is in accordance with previous research which has indicated that cognitive evaluations, such as product knowledge, frequently play a secondary role in consumer decision-making processes when compared to affective factors (Diamantopoulos et al., 2003). The weaker mediation of GPI between CCI and WTB indicates that, although rational assessments are significant, emotional considerations frequently have a greater influence, particularly in the context of sustainability (Wang et al., 2012). These findings contribute to the theoretical framework of consumer behaviour by demonstrating how CoI operates through both emotional and rational pathways, with GPI serving as a significant mediator that directs these influences into sustainable consumption patterns.

From a managerial perspective, these findings provide clear guidance for enhancing the marketing attractiveness of sustainable products. Considering the significant influence of ACI on GPI and WTB, it is recommended that marketers adopt strategies that facilitate the development and communication of robust emotional connections with consumers. For example, the use of storytelling that is aligned with consumers' environmental values has been demonstrated to enhance the perceived sustainability of products (Qalati et al., 2024). While knowledge of a country's sustainability practices is beneficial, it should be integrated with affective marketing strategies to achieve the greatest possible effectiveness (Jo, 2024). Moreover, the significant function of GPI as a mediator underscores the necessity for organisations to emphasise their environmentally friendly credentials in their PCoI branding. This not only serves to reinforce consumer perceptions but also meets the growing demand for transparency and authenticity in sustainability claims (Qalati et al., 2024). It is therefore recommended that marketers adopt a dual approach, combining online and offline strategies that emphasise eco-friendly attributes relative also to the CoI of the products with consumer engagement initiatives that promote responsible consumption (Qalati et al., 2024).

6. Conclusion, limitations and future research

This study offers significant insights into the intricate dynamics of CoI within the greater context of consumer behaviour, particularly when environmental image represents a pivotal consideration. By examining the relationship between ACI, CCI, GPI and WTB, this

research contributes to the growing body of literature on international marketing and sustainable consumer behaviour. The findings indicate that both the affective and cognitive components play a significant role in influencing consumer perceptions when a country's green and sustainable image is associated with a specific product. In this vein, the study emphasises the significant mediating function of GPI in influencing consumer WTB.

It is important to acknowledge the limitations of this study, despite the valuable insights it offers. Firstly, the sample size was relatively modest and comprised primarily of well-educated consumers. As a result, the findings are not necessarily representative of the broader population of the country under investigation. For future research, it would be beneficial to increase the sample size and diversify it in terms of demographics in order to obtain a more comprehensive understanding of the phenomenon

Moreover, it should be noted that the research was conducted within the context of a single country, with a focus on Italian foods. Given that consumer perceptions of GPI can differ based on cultural and national contexts, it would be beneficial for future research to extend the study to other countries and consumer nationalities. An investigation of this nature would serve to validate the robustness of the model and to explore cross-cultural differences in GPI effects.

Additionally, while the study integrated the affective and cognitive components of CoI, future research may benefit from incorporating additional constructs that have been traditionally used in international marketing literature. For example, incorporating measures of consumer ethnocentrism and country familiarity could provide a more differentiated understanding of how GPI influences consumer behaviour in different contexts, while inserting control variables related to demographics could extend our understanding.

Last but not least, the next step of our work will be aimed at catching the impact of GCoI together with that of GPI.

References

Aguilar-Luzón, M. d. C., Carmona, B., & Loureiro, A. (2023). Future actions towards climate change: the role of threat perception and emotions. European Journal of Sustainable Development, 12(4), 379. https://doi.org/10.14207/ejsd.2023.v12n4p379

Almousa, M., Jin, B., Yang, H., & Kim, N. (2018). The mediating effects of micro country image by product category and country. International Journal of Market Research, 61(6), 668-682. https://doi.org/10.1177/1470785318778245

Akturan, U. (2018). How does greenwashing affect green branding equity and purchase intention? an empirical research. Marketing Intelligence &Amp; Planning, 36(7), 809-824. https://doi.org/10.1108/mip-12-2017-0339

Akturan, U. (2020). Pay-premium for green brands: evidence from an emerging country. Journal of Global Responsibility, 11(3), 219-232. https://doi.org/10.1108/jgr-03-2019-0034

Areola, P. H. E. M. Q., Perono, I., & Ilagan, J. C. (2022). The relationship of sustainable buying behavior dimensions among the gen z: modeling the impact of psychological factors. Journal of Sustainable Community Development (JSCD), 4(1), 30-39. https://doi.org/10.32924/jscd.v4i1.66

Baron, R. M. and Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations.. Journal of Personality and Social Psychology, 51(6), 1173-1182. https://doi.org/10.1037/0022-3514.51.6.1173

Biswas, A., Mousumi, R. (2015). "Green Products: An Exploratory Study on the Consumer Behaviour in Emerging Economies of the East." *Journal of Cleaner Production* 87 (January): 463–68, http://dx.doi.org/10.1016/j.jclepro.2014.09.075

Brandão, A. and Miranda, C. C. d. (2022). Does sustainable consumption behaviour influence luxury services purchase intention?. Sustainability, 14(13), 7906. https://doi.org/10.3390/su14137906

Byrne, B. M. (2016). Structural equation modeling with amos.. https://doi.org/10.4324/9781315757421

Browne, M. W. and Cudeck, R. (1992). Alternative ways of assessing model fit. Sociological Methods &Amp; Research, 21(2), 230-258. https://doi.org/10.1177/0049124192021002005

Bucur, L. (2023). Exploring the role of consumers in promoting a circular economy: increasing awareness and engagement. Proceedings of the International Conference on Business Excellence, 17(1), 38-47. https://doi.org/10.2478/picbe-2023-0006

Burhanudin, B. and Daldiri, R. N. S. (2023). Chinese ice cream in indonesia: analyzing halal brand image, halal brand loyalty, halal brand trust and purchase intention. The Journal Gastronomy Tourism, 10(2), 152-166. https://doi.org/10.17509/gastur.v10i2.63353

De Canio, F. and Martinelli, E. (2020), "EU quality label vs Organic food products: a multigroup structural equation modeling to assess consumers' intention to buy in light of sustainable motives", Food Research International, 109846, https://doi.org/10.1016/j.foodres.2020.109846

Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? a review of the evidence and an empirical investigation. Journal of Business Research, 56(6), 465-480. https://doi.org/10.1016/s0148-2963(01)00241-7

Feng, N. (2023). How country image of an exporting country buffers against the impact of food safety incidents on consumer trust and purchase intention: an experimental study. British Food Journal, 125(11), 4229-4246. https://doi.org/10.1108/bfj-01-2023-0008

Feng, N., Zhang, A., Klinken, R., & Cui, L. (2021). An integrative model to understand consumers' trust and willingness to buy imported fresh fruit in urban china. British Food Journal, 123(6), 2216-2234. https://doi.org/10.1108/bfj-07-2020-0575

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.2307/3151312

Graves, B. and Merkle, E. C. (2021). A note on identification constraints and information criteria in bayesian latent variable models. Behavior Research Methods, 54(2), 795-804. https://doi.org/10.3758/s13428-021-01649-8

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Mediation analysis. Classroom Companion: Business, 139-153. https://doi.org/10.1007/978-3-030-80519-7_7

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Prentice Hall.

Han, H., Al-Ansi, A., Chi, X., Baek, H., & Lee, K. (2020). Impact of environmental csr, service quality, emotional attachment, and price perception on word-of-mouth for full-service airlines. Sustainability, 12(10), 3974. https://doi.org/10.3390/su12103974

Henseler, J., Ringle, C. M., & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115-135. https://doi.org/10.1007/s11747-014-0403-8

Hartmann, P. and Apaolaza-Ibáñez, V. (2012). Consumer attitude and purchase intention toward green energy brands: the roles of psychological benefits and environmental concern. Journal of Business Research, 65(9), 1254-1263. https://doi.org/10.1016/j.jbusres.2011.11.001

Hiến, N., Phuong, N., Tran, T., & Thang, L. (2020). The effect of country-of-origin image on purchase intention: the mediating role of brand image and brand evaluation. Management Science Letters, 1205-1212. https://doi.org/10.5267/j.msl.2019.11.038

Hong, L., Yao, L., Xie, P. and Li, W. (2020), "An empirical study on consumer purchase intention for nuts and influencing factors—survey based on consumers from Zhejiang", Food Control, p. 10734, https://doi.org/10.1016/j.foodcont.2020.107343

Hu, L. and Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. Structural Equation Modeling: A Multidisciplinary Journal, 6(1), 1-55. https://doi.org/10.1080/10705519909540118

Jaiswal, D., Rishi K. (2018). "Green Purchasing Behaviour: A Conceptual Framework and Empirical Investigation of Indian Consumers." *Journal of Retailing and Consumer Services* 41: 60–69. https://doi.org/10.1016/j.jretconser.2017.11.008

Jin, B., Almousa, M., Yang, H., & Kim, N. (2018). Differential effects of macro and micro country images by product category and by country among saudi consumers. Management Decision, 56(8), 1663-1681. https://doi.org/10.1108/md-10-2016-0751

Jöreskog K. G., and Sörbom D. (1981), *LISREL V: Analysis of Linear Structural Relationships by Maximum Likelihood and Least Squares Methods.* Chicago: National Educational Resources.

Jöreskog, K.G. and Sörbom, D. (2006), LISREL 8.80, Scientific Software International, Chicago
Khandelwal, U., Kulshreshtha, K., & Tripathi, V. (2019). Importance of consumer-based green brand equity: empirical evidence. Paradigm, 23(1), 83-97. https://doi.org/10.1177/0971890719844428
Kanwal, R. (2024). A systematic literature review and bibliometric analysis of green brand image from 2000 to 2022., 3(1), 116-134. https://doi.org/10.61503/cissmp.v3i1.122
Kang, M. and Kim, S. (2018). How international political conflict hurts country image and further influences consumers' purchase intention. International Business Research, 11(2), 95. https://doi.org/10.5539/ibr.v11n2p95
Khalique, M., Iftikhar, S., Yaacob, M., & Tahir, A. (2020). Antecedents and mediating role of green buying behavior. Market Forces, 15(2), 22. https://doi.org/10.51153/mf.v15i2.459
Kim, S. and Kwon, K. (2018). Examining the relationships of image and attitude on visit intention to korea among tanzanian college students: the moderating effect of familiarity. Sustainability, 10(2), 360. https://doi.org/10.3390/su10020360
Klein, A. and Moosbrugger, H. (2000). Maximum likelihood estimation of latent interaction effects with the lms method. Psychometrika, 65(4), 457-474. https://doi.org/10.1007/bf02296338
Kline, R. B. (2018). Response to leslie hayduk's review of principles and practice of structural equation modeling, 4th edition. Canadian Studies in Population, 45(3-4), 188. https://doi.org/10.25336/csp29418
Köck, F., Josiassen, A., & Assaf, A. G. (2019). Toward a universal account of country-induced predispositions: integrative framework and measurement of country-of-origin images and country emotions. Journal of International Marketing, 27(3), 43-59. https://doi.org/10.1177/1069031x19857692
Kurmangali, Z. (2019). Literature review: the country of origin image affecting consumers' purchase decision. International Journal of Engineering and Management Research, 9(2), 128-133. https://doi.org/10.31033/ijemr.9.2.16
Kwilinski, A., Lyulyov, O., & Pimonenko, T. (2024). The role of country's green brand and digitalization in enhancing environmental, social, and governance performance. Economics and Environment, 87(4), 1-22. https://doi.org/10.34659/eis.2023.87.4.613
Lee, Y. (2020). The relationship between green country image, green trust, and purchase intention of korean products: focusing on vietnamese gen z consumers. Sustainability, 12(12), 5098. https://doi.org/10.3390/su12125098
Li, D., Wang, C. L., Jiang, Y., Barnes, B. R., & Zhang, H. (2014). The asymmetric influence of cognitive and affective country image on rational and experiential purchases. European Journal of Marketing, 48(11/12), 2153-2175. https://doi.org/10.1108/ejm-09-2012-0505
Li, H., You, C., Li, J., Li, M., Tan, M., Zhang, G., … & Zhong, Y. (2022). Influence of environmental aesthetic value and anticipated emotion on pro-environmental behavior:

an erp study. International Journal of Environmental Research and Public Health, 19(9), 5714. https://doi.org/10.3390/ijerph19095714
Lin, C., Huang, C., Lin, H., & Chuang, C. (2019). The origin of the country-of-origin image: the role of law. Journal of Product &Amp; Brand Management, 29(5), 617-635. https://doi.org/10.1108/jpbm-08-2018-1968
Mariutti, F., Tench, R., Giraldi, J., & Montanari, M. (2017). 'if i huff and i puff'. foundations for building brazil's image: evidence from an international systematic review (2001 to 2015). Internext, 12(2), 58-73. https://doi.org/10.18568/1980-4865.12258-73
Magnusson, P., Krishnan, V., Westjohn, S. A., & Zdravković, S. (2014). The spillover effects of prototype brand transgressions on country image and related brands. Journal of International Marketing, 22(1), 21-38. https://doi.org/10.1509/jim.13.0068
Mota-Gutierrez, J., Sparacino, A., Merlino, V. M., Blanc, S., Brun, F., Massimelli, F., … & Massaglia, S. (2024). Socio-demographic and cross-country differences in attention to sustainable certifications and changes in food consumption. NPJ Science of Food, 8(1). https://doi.org/10.1038/s41538-024-00274-x
Muthén, B. (2002). Beyond sem: general latent variable modeling. Behaviormetrika, 29(1), 81-117. https://doi.org/10.2333/bhmk.29.81
Obiettivo-India-2022-DEFINITIVA.Pdf. n.d. Accessed August 10, 2024. https://ambnewdelhi.esteri.it/wp-content/uploads/2023/05/Obiettivo-India-2022-DEFINITIVA.pdf
Oduro, S., De Nisco, A., & Petruzzellis, L. (2023). Country-of-origin image and consumer brand evaluation: a meta-analytic review. Journal of Product &Amp; Brand Management, 33(1), 108-124. https://doi.org/10.1108/jpbm-01-2023-4328
Papadimitriou, D., Kaplanidou, K., & Apostolopoulou, A. (2015). Destination image components and word-of-mouth intentions in urban tourism: a multigroup approach. Journal of Hospitality &Amp; Tourism Research, 42(4), 503-527. https://doi.org/10.1177/1096348015584443
Patidar, M. and Patidar, D. S. (2023). A demographic analysis of understanding the role of green marketing on purchase intention. Asian Journal of Management and Commerce, 4(2), 26-33. https://doi.org/10.22271/27084515.2023.v4.i2a.188
Ploll, U. and Stern, T. (2020), "From diet to behaviour: exploring environmental-and animal-conscious behaviour among Austrian vegetarians and vegans", British Food Journal, Vol. 122 No. 11, pp. 3249-3265 https://doi.org/10.1108/BFJ-06-2019-0418
Qalati, S. A., Barbosa, B., & Deshwal, P. (2024). Consumer behavior and sustainable marketing development in online and offline settings. Sustainability, 16(7), 2829. https://doi.org/10.3390/su16072829
Rodiyah, R. (2023). Capturing the opportunity of green economic policy for environmental sustainability. Iop Conference Series Earth and Environmental Science, 1248(1), 012035. https://doi.org/10.1088/1755-1315/1248/1/012035
Roth, K. P., & Diamantopoulos, A. (2009). Advancing the country image construct. *Journal of Business Research*, *62*(7), 726–740. https://doi.org/10.1016/j.jbusres.2008.05.014

Rudzewicz, A. and Strychalska-Rudzewicz, A. (2021). The influence of brand trust on consumer loyalty. European Research Studies Journal, XXIV(Special Issue 3), 454-470. https://doi.org/10.35808/ersj/2439

Šapić, S., Lazarević, J., & Filipović, J. (2021). The effect of country - of - origin image trough quality, design and attractiveness related to product on consumer loyalty. The European Journal of Applied Economics, 18(1), 137-150. https://doi.org/10.5937/ejae18-28972

Thøgersen, J. and Pedersen, S. (2021). The importance of the export country's environmental image for consumer responses to an imported environmentally friendly product. International Marketing Review, 38(6), 1217-1241. https://doi.org/10.1108/imr-05-2020-0085

Viet, N. Q., Leeuw, S. d., & Herpen, E. v. (2023). The impact of social vs environmental sustainability information disclosure on consumer choice of delivery time with varying sustainability concerns. International Journal of Physical Distribution &Amp; Logistics Management, 53(11), 26-52. https://doi.org/10.1108/ijpdlm-09-2021-0392

Wang, C. L., Li, D., Barnes, B. R., & Ahn, J. (2012). Country image, product image and consumer purchase intention: evidence from an emerging economy. International Business Review, 21(6), 1041-1051. https://doi.org/10.1016/j.ibusrev.2011.11.010

Yang, Y. (2017). Consumer behavior towards green products. Journal of Economics, Business and Management, 5(4), 160-167. https://doi.org/10.18178/joebm.2017.5.4.505

Zilaie, R., Kordnaeij, A., & Ahmadi, P. (2016). The relative contribution of brand love and country image towards the formation of brand equity. Mediterranean Journal of Social Sciences. https://doi.org/10.5901/mjss.2016.v7n2s2p164

Zhang, X. and Dong, F. (2020). Why do consumers make green purchase decisions? insights from a systematic review. International Journal of Environmental Research and Public Health, 17(18), 6607. https://doi.org/10.3390/ijerph17186607