

INFLUENCE OF PRODUCT PRICE ON CONSUMER PERCEPTIONS OF THE AUTHENTICITY OF SUSTAINABILITY LABELS

Julian Hoesen¹

¹ *Mendel University in Brno, Czech Republic*



EUROPEAN JOURNAL
OF BUSINESS SCIENCE
AND TECHNOLOGY

Volume 11 Issue 1
ISSN 2694-7161
www.ejobsat.com

ABSTRACT

In the German-speaking food market, a significant gap exists between consumer preference for sustainable options and purchasing behavior, primarily due to skepticism about the authenticity of sustainability claims. In a study involving 368 participants from Germany, Austria, and Switzerland, the influence of price on the perceived authenticity of sustainability labels was examined. Participants were surveyed on their explicit attitudes, while their implicit attitudes were assessed using the implicit association test (IAT). Results show that a higher price significantly improves the perception of a product's authenticity. Socioeconomic factors, such as nationality and gender, are significant, with Swiss nationality and female gender showing strong correlations with higher perceived authenticity. This study uniquely examines initial attitudes and reactions to reflect heuristic consumption decisions. Insights can be used to develop pricing and marketing strategies tailored to different markets and target groups, effectively addressing consumer skepticism through targeted communication and pricing.

KEY WORDS

sustainability, labelling, communication

JEL CODES

M30, M31, M37

1 INTRODUCTION

In 2022, organic food generated a turnover of €15.87 billion in Germany, constituting 7% of the food industry's total turnover (Nielsen et al., 2023; BÖLW, 2023). Despite this, there exists an untapped potential for sustainable

products due to consumer skepticism arising from untrustworthy labels indicating a potential market value of up to €181 million (Capgemini Research Institute, 2020; Edelman, 2022). This study explores how enhancing con-

sumer trust can be harnessed, particularly for sustainable items categorized as credence goods (Vega-Zamora et al., 2018). This classification means consumers cannot inspect the product or its properties at purchase or post-purchase, relying on the supplier for verification (Darby and Karni, 1973). In the pursuit of trust establishment, labels play a crucial role in confirming factors that remain unverifiable by consumers, effectively mitigating the information gap (Caswell and Mojdzuska, 1996).

To address the challenge of consumer distrust, this study investigates the impact of price on perceived authenticity. Notably, 55.6% of Germans are familiar with the term greenwashing, indicating a heightened sensitivity to deceptive sustainability claims (Vaude et al., 2023). This refers to the declaration of sustainability factors in a product that are not fulfilled to achieve a higher sales price (Schmuck et al., 2018; Arouri et al., 2021). Trust issues are further underscored by the fact that 44% of German consumers lack confidence in product sustainability claims (Capgemini Research Institute, 2020), with skepticism directed towards labels identified as a primary reason (Hughner et al., 2007; Vega-Zamora et al., 2018).

As far as sustainability is concerned, there is a link between sustainability and health as well as between price and value. Consumers consider sustainable products to be healthier and more valuable and therefore expect a higher price (Garcez de Oliveira Padilha et al., 2021; Rivera-Toapanta et al., 2022). On the other hand, 54% of consumers in Germany do not buy sustainable products as they are too expensive (Deloitte, 2023). This situation engenders a conflict of objectives in pricing strategy. On one hand, there is the imperative to establish competitive prices that resonate with cost-conscious consumers. Conversely, there exists the countermanding necessity to avoid pricing structures that might convey a perception of inferiority, subsequently undermining the sustainability of the product. Consequently, the inquiry arises regarding the optimal organization of pricing (Bastounis et al., 2021). Considering this, the ensuing section scrutinizes how consumers implicitly align themselves with lower or higher

price points and whether such alignment exerts an influence on their perception of authenticity of sustainability attributes.

Regarding trust in a product proposition, Vega-Zamora et al. (2018) name two major factors:

- Functionality refers to whether the claimed product specification meets the customer's needs.
- Authenticity indicates whether the offer matches the advertised product.

The study introduces the Implicit Association Test (IAT) to measure implicit attitudes towards sustainable consumption, aiming to predict consumer behavior related to trust in sustainability labels while mitigating self-image biases (Greenwald et al., 2003; Jahn, 2018). In the following study, the added value lies in the measurement of implicit association. It is investigated whether the IAT can also be used in this setting to measure implicit attitudes towards sustainable consumption to develop an instrument that can predict consumer behavior regarding trust in sustainability labels.

This study examines how product price influences perceptions of the authenticity of sustainability labels in the German-speaking food market. Given the gap between consumer interest in sustainable products and actual purchasing behavior, it is crucial to address factors such as skepticism toward sustainability claims. The study hypothesizes that price—often perceived as a signal of quality—could play a key role in shaping perceptions of authenticity in terms of sustainability.

In addition to analyzing price as a variable, this research considers socioeconomic factors, such as nationality, education, age, to understand their impact on the relationship between price and authenticity. Another focus lies on the explicit attitudes of consumers toward sustainability, referring to their conscious beliefs and opinions. The objective is to understand how explicit attitudes influence authenticity perceptions in relation to pricing. By examining these dimensions, this study seeks to provide a comprehensive understanding of the factors shaping consumer trust in sustainability claims related to pricing, offering valuable insights

for businesses and policymakers on how sustainability labels can promote more consistent, sustainable purchasing behavior.

The comprehensive analysis that follows delves into the multifaceted dimensions of the subject matter from technological, business, and political perspectives. This approach is adopted to holistically examine the intricate interplay of factors contributing to a nuanced understanding.

From a business perspective, successful marketing strategies for sustainable products must balance communicating their value with justifying their higher costs (Bastounis et al., 2021; Li and Kallas, 2021). While most studies rely on choice experiments to gather explicit consumer opinions (Cook et al., 2023), this

research uses reaction tests to assess implicit responses, focusing on whether higher prices deter or reinforce perceptions of sustainability’s value. The deliberate exclusion of greenwashing practices emphasizes the study’s commitment to genuine sustainability discourse.

From a political perspective, the findings highlight policy levers to promote sustainable consumption. While pricing is largely determined by businesses, political education and subsidies can influence consumer behavior indirectly (Ammann et al., 2023). This research provides insights into subsidizing sustainable products and achieving price parity with conventional options, identifying policies and governance mechanisms critical for fostering widespread adoption of sustainable practices.

2 THEORETICAL FRAMEWORK

The initial stage of this research examines factors influencing trust in sustainability labels, aiming to identify dependencies that, along with price, affect the perception of authenticity.

Fig. 1 classifies these influencing factors. Based on a comprehensive literature review, the key factors are outlined.

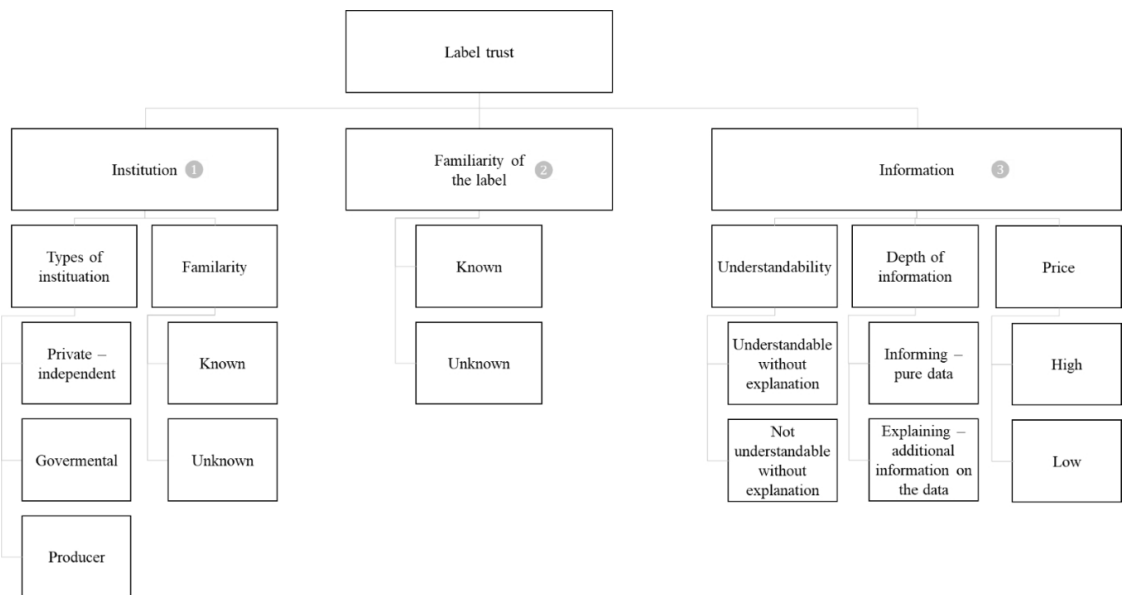


Fig. 1: Trust in credence good sustainability impacting factors. Legend: 1 = Gorton et al. (2021); 2 = Bickart and Ruth (2012); 3 = Schoenheit (2014), Van Loo et al. (2014), Marette et al. (2012), Gutierrez et al. (2020), Garcez de Oliveira Padilha et al. (2021), Rivera-Toapanta et al. (2022), Carmela Aprile and Punzo (2022)

Institution. Consumer trust in a label is significantly influenced by the credibility of the awarding institution. Labels associated with public or reputable institutions are perceived as more reliable and trustworthy, with consumer trust positively correlating with institutional reputation (Gorton et al., 2021).

Familiarity of the label. The extent to which consumers recognize and understand a label strongly impacts trust in its claims. Familiarity, encompassing both recognition and comprehension of the label’s meaning, enhances the perceived reliability of the provided attributes (Bickart and Ruth, 2012).

Information. Consumer comprehension of a label is positively correlated with perceptions of sustainability. Detailed explanations and supplementary information accompanying labels enhance understanding, thereby increasing the perceived credibility of the product’s attributes (Van Loo et al., 2014; Schoenheit, 2014; Gutierrez et al., 2020). Supplementary details alongside labels enhance consumer understanding of product attributes, increasing overall comprehensibility (Carmela Aprile and Punzo, 2022).

Price. Sustainable products are often associated with health benefits and intrinsic value, leading consumers to anticipate higher prices. This perceived correlation between sustainability, health, and value reinforces expectations of

premium pricing (Garcez de Oliveira Padilha et al., 2021; Rivera-Toapanta et al., 2022).

As mentioned, the effectiveness of labelling and information depends on the consumer’s interpretation of the sustainability attributes and their trust in the labelling. In this context, a distinction must be made between two forms of trust as shown in Fig. 2. Trust in the offer and authenticity of the offer. Trust in the offer signifies the ability of the offer to fulfil consumer requirements, regardless of its authenticity. This increases the perceived sustainability value, especially among the LOHAS (Lifestyle of Health and Sustainability) target group or consumers who are inclined towards sustainable consumption (Choi and Feinberg, 2018). The authenticity of the sustainability attribute ensures that consumers believe that the product is consistent with its claims. If it is perceived as authentic, the perception of sustainability increases (Vega-Zamora et al., 2018).

At this juncture, the author conducts an empirical analysis to assess the direct correlation between perceived authenticity of sustainability and price level, positing the following hypothesis.

H₁: There is a positive correlation between the price associated with a label and the perceived authenticity.

3 METHODOLOGY AND DATA

To test Hypothesis 1, the implicit attitudes of the subjects are assessed using an Implicit Association Test (IAT).

3.1 Design of the IAT

Attitude is defined as the evaluation of a concept, distinguishing between explicit (conscious, system 2) and implicit (automatic, system 1) attitudes (Jahn, 2018). Fig. 2 illustrates the connection between “Label/Information” and “Authenticity of offer” through explicit (system 2) and implicit (system 1) processing.

This study investigates whether increased price influences perceived authenticity, independent of processing or understanding. An Implicit Association Test (IAT) is used to measure implicit attitudes, reducing self-image biases through both surveys and IAT results (Tab. 1). The study examines whether higher-priced labels generate greater trust and authenticity perceptions than lower-priced ones.

Participants pair target concepts with associative attributes, using labels linked to high/low price synonyms and authentic/inauthentic synonyms. Reaction times measure implicit attitudes, with results

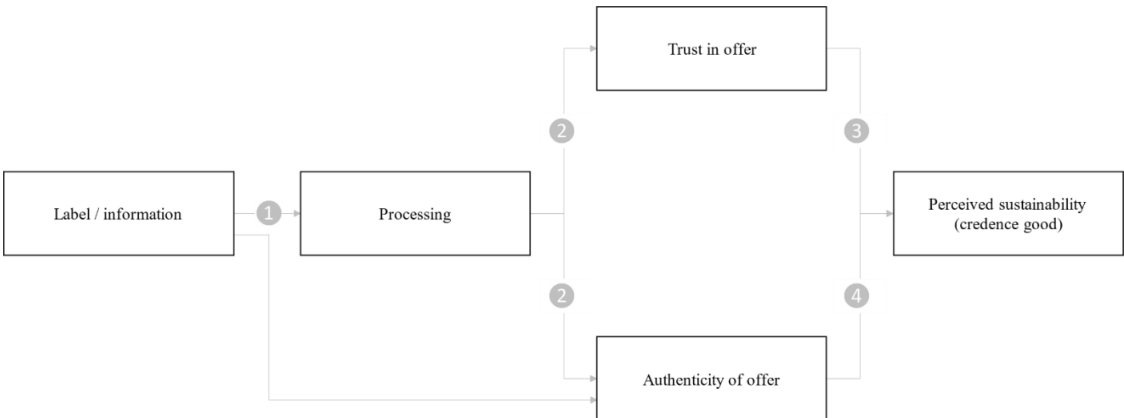


Fig. 2: Dependency of authenticity and price. Legend: 1 = Carmela Aprile and Puzzo (2022); 2 = Van Loo et al. (2014), Gutierrez et al. (2020), Schoenheit (2014), Marette et al. (2012); 3 = Gorton et al. (2021); 4 = Vega-Zamora et al. (2018)

evaluated using Greenwald’s improved *d*-score (Greenwald et al., 1998), which adjusts reaction times for accuracy, training effects, and learning. Values from blocks 3, 4, 6, and 7 calculate associations for A-C and B-D versus reverse assignments, ensuring robust analysis of implicit attitudes (Greenwald et al., 2003).

Exclusion Criteria

- Exclude response times below 300 ms if they exceed 10% of responses.
- Exclude answers over 10 seconds.

Standard Deviation

- Calculate for practice blocks 3 and 6, and test blocks 4 and 7.

Incorrect Answers

- Add 600 ms to the average block response time for incorrect answers (excluding standard deviation).

Average Response Time

- Calculate for each test block.

Normalization and Index

- Compute the difference between average response times of blocks 6 and 3, and 7 and 4.
- Normalize by dividing differences by their standard deviations.
- The index value is the average of these two quotients, indicating the strength of implicit association.

Tab. 1: Procedure of the IAT









#	Category	Function	Left	Right	Trials
1	Initial target-concept	Practise	A: Label with a high price	B: Label with a low price	20
2	Associated attribute trust	Practise	C: Synonyms (trust)	D: Synonyms (fraud)	20
3	Initial combined task	Practise	C: Synonyms (trust) A: Label with a high price	D: Synonyms (fraud) B: Label with a low price	20
4	Initial combined task	Test	C: Synonyms (trust) A: Label with a high price	B: Synonyms (fraud) B: Label with a low price	40
5	Reversed target-concept	Practise	B: Label with a low price	A: Label with a high price	20
6	Reversed combined task	Practise	C: Synonyms (trust) B: Label with a low price	D: Synonyms (fraud) A: Label with a high price	20
7	Reversed combined task	Test	C: Synonyms (trust) B: Label with a low price	D: Synonyms (fraud) A: Label with a high price	40

Tab. 2: Associated Attributes used in IAT

#	Authentic/Trustable German	English	Inauthentic/Fraud German	English
1	Vertrauen	Trust	Misstrauen	Mistrust
2	Authentisch	Authentic	Fassade	Facade
3	Kontrolliert	Controlled	Inzenierung	Staging
4	Vertrauenswürdig	Trustworthy	Lüge	Lie
5	Wahrheit	Truthful	Manipulation	Manipulation
6	Transparenz	Transparent	Skandal	Scandal
7	Gewissheit	Certainty	Skeptisch	Sceptical
8	Verifiziert	Verified	Zweifeln	Doubt

Note: The associated attributes are based on synonyms from Duden (2022)

Tab. 3: Initial Target-Concept

#	Content	Name	Label
1	Fairtrade	Regional und fair (En: regional and fair)	
2	Regionality	Bio – aus der Region (En: Organic – from the region)	
3	Environmental protection	Rainforest Alliance	
4	Child labor	Fair for Life	
5	Regionality	Regional	
6	Environmental protection	Dolphin safe	
7	Minimum wage	Ethiquable	
8	Fairtrade	Fairtrade	

Source: Bundesverband (2022)

The Duden dictionary, adhering to official spelling regulations (Bibliographisches Institut, 2017), was used to identify associative attributes. Words were selected for their comprehensibility and current usage in German, resulting in eight terms as shown in Tab. 2 reflecting authentic/trustworthy and inauthentic/fraudulent attributes.

To minimize influencing factors, this study uses self-explanatory “word labels” easily understood without prior knowledge (Van Loo et al., 2014). The EU organic label, for example, was excluded for lacking direct reference to organic attributes. Participants are challenged to quickly classify information as “high price” or “low price” without interpretation. To avoid biases related to awarding institutions or manufacturers, only standalone labels were

used (GIM, 2020; Gorton et al., 2021). Labels with the highest reach and recognition were selected from the Association of Consumers in Germany’s database (Bundesverband, 2022). The eight selected labels are listed in Tab. 3. In the Implicit Association Test (IAT), label images were paired with synonyms for valuable/expensive (“high price”) and affordable/inexpensive (“low price”) as shown in Tab. 18 in the Annex.

3.2 Executing the IAT

The study was created using SoSci (2022) Survey software (version 3.5.00), chosen for its capability to conduct the IAT and set association parameters, allowing accurate time measurement given a sufficient internet con-

nection. SoSci Survey also facilitates direct evaluation of the Greenwald improved d -score.

Participants were classified through preliminary questions to rank socioeconomic status and sustainability ambitions (see Tab. 17 in the Annex). The survey link was shared across various groups to ensure a diverse socioeconomic sample. The survey was conducted from December 2023 to January 2024 and from July to August 2024. Distribution included:

- Emden/Leer University of Applied Sciences (Master's program in Consulting)
- Rowing club in Cologne
- Regional Facebook groups in Haren (Ems), Bielefeld, Emden, Stuttgart, and Cologne
- A racing bike club in Vienna
- Regional Facebook groups in Pöls, Salzburg, and Tyrol
- WZU in Zurich (Master's program Economics)
- Regional Facebook groups in Zurich, Bern, and Lucerne

3.3 Sample

In this pilot study, 748 people participated in the IAT, with 368 completing the test fully, resulting in a completion rate of 49.3%. The socioeconomic distribution is shown in Tab. 4, and its representativeness will be analyzed subsequently.

This structure must be compared with the population structure in the target countries, as presented in Tab. 5, to assess the representativeness of the data.

3.3.1 Sample Size

The sample size of 368 respondents in this study is robust and adheres to methodological standards in comparable studies utilizing the Implicit Association Test (IAT) (Pennington et al., 2023). After expanding the sample to 368 participants, results demonstrated consistency, with a minimal adjustment in the d -score from 0.24 (SD = 0.5) to 0.21 (SD = 0.55), thus confirming the stability and reliability of the initial findings. This slight variation reflects an increased distribution in age and education.

In correlational IAT research, standard practice recommends sample sizes between 200 and

400 participants to achieve adequate statistical power (typically around 0.80) for detecting medium effect sizes (Cohen's $d \approx 0.5$), while accounting for the moderate test-retest reliability of the IAT, generally averaging 0.50. With 368 participants, this study meets and exceeds these benchmarks, ensuring reliable detection of moderate effects and sufficient statistical robustness (Pennington et al., 2023).

For further comparison, a detailed list of studies using similar or smaller sample sizes is provided in Tab. 19 in the Annex. These include research across healthcare, socio-cognitive psychology, and consumer behavior, where sample sizes within this range have consistently yielded valid and reproducible results. This alignment with established sample size standards supports the validity of our findings and underscores the reliability of the insights into sustainable consumption behaviors across Germany, Austria, and Switzerland.

3.3.2 Sample Distribution

The sample's socioeconomic structure closely aligns with the general populations of Germany, Austria, and Switzerland across gender, age, education, and nationality. Gender distribution includes 52% male and 48% female participants, reflecting national distributions but excluding non-binary individuals, limiting correlations for these groups. The age distribution is concentrated in the 25–34 range, with 93% of participants within the 15–64 demographic, moderately aligning with national averages (64.7–67.5%). However, older adults (65+) are underrepresented (3% vs. 17.7–21.7%), restricting conclusions for this group. Despite this, the focus on younger participants is relevant, as they are key drivers of sustainability trends due to their environmental consciousness, digital literacy, and preference for values-driven brands (Ziesemer et al., 2021; United Nations, 2023; Hong et al., 2024).

Educational attainment is representative, with primary education at 11%, secondary at 51%, and tertiary at 38%, comparable to national averages. Although tertiary education in Switzerland is slightly underrepresented, the overall profile is reflective of the population. Nationality distribution includes 36%

Tab. 4: Summary statistics of sample’s socio-demographic characteristics

Characteristics	<i>N</i> (abs.)	<i>N</i> (rel.)
<i>Gender</i>		
Male	192	52%
Female	176	48%
Divers	0	0%
<i>Age group (years)</i>		
15–19	24	7%
20–24	40	10%
25–29	68	18%
30–34	77	21%
35–39	45	12%
40–44	36	10%
45–49	23	6%
50–54	22	6%
55–59	17	5%
60–64	15	4%
65 or older	11	3%
<i>Education</i>		
Partial Skilled Worker Qualification	1	0%
Completed Vocational or Agricultural Apprenticeship	42	11%
Completed Commercial Apprenticeship	40	11%
Vocational School Certificate	43	12%
Technical School Certificate	66	18%
Master Craftsman, Technician, or Equivalent Technical School Certificate	35	10%
University of Applied Sciences Degree	69	19%
University Degree	48	13%
Student	4	1%
In professional apprenticeship	20	5%
<i>Origin</i>		
Germany	131	36%
Austria	128	35%
Switzerland	109	30%

Source: Questionnaire survey, November 2023 and July 2024, $n = 368$

Tab. 5: Socioeconomic structure DACH

Country	Male (%)	Female (%)	Age 0–14 (%)	Age 15–64 (%)	Age 65+ (%)	No Education (%)	Primary Education (%)	Secondary Education (%)	Tertiary Education (%)
Germany	49.3	50.7	13.60	64.70	21.70	0.50	9.00	56.40	34.1
Austria	49.5	50.5	14.10	65.10	20.80	0.40	7.50	55.80	36.3
Switzerland	49.4	50.6	14.80	67.50	17.70	0.30	6.70	49.10	43.9

Source: Bundesamt (2024a, 2024b), Statistics Austria (2024), Bundesamt für Statistik (2023)

Germans, 35% Austrians, and 30% Swiss, offering balanced cross-national comparability despite minor deviations from actual population distributions.

In summary, the sample effectively represents key socioeconomic dimensions but underrepre-

sents older adults, a limitation to consider when interpreting findings, especially if age significantly impacts the variables studied. Insights remain relevant, particularly given the influence of younger consumers on sustainable market dynamics.

4 RESULTS

The results are given in the form of the *d*-score, but these must also be analyzed in the context of socioeconomic factors and explicit attitudes.

4.1 Result

The *d*-score of 0.2110 indicates a moderate implicit bias towards the ‘high price’ category, with a standard deviation of 0.5575 reflecting variability in reaction times as shown in Tab. 6. These results support H_1 , showing a positive correlation between price and perceived authenticity, influenced by socio-economic factors.

Tab. 6: Resulting *d*-score of IAT

Description	Values
Average of improved <i>d</i> -score	0.2110
StdDev of improved <i>d</i> -score	0.5575
Count of Interviews	369

Source: Questionnaire survey, November 2023 and July 2024, $n = 368$

4.2 Correlations

There is a strong positive correlation between DACH nationality and *d*-score ($r = 0.47$, $p < 0.0001$). Trust in sustainable products also shows a strong correlation with *d*-score ($r = 0.53$, $p < 0.0001$). Moderate correlations are observed between *d*-score and gender ($r = 0.17$, $p = 0.0014$), increasing professional qualification ($r = 0.15$, $p = 0.0033$) and with higher sustainability values and behaviors. No significant correlation is found between age and *d*-score ($r = 0.00$, $p = 0.9688$).

A significant positive correlation ($r = 0.47$, $p = 0.0014$) between DACH nationality and *d*-score highlighting a nuanced relationship between nationality and authenticity perceptions.

This indicates that Germans have a negative perception of sustainability at higher prices, whereas Austrians and Swiss have a positive perception as shown in Tab. 8.

A correlation coefficient between gender and *d*-score ($r = 0.17$, $p = 0.0014$) shows a low positive relationship, indicating statistical significance. Mean *d*-scores for males and females were 0.122 and 0.308, respectively, with standard deviations of 0.580 and 0.515. This indicates variability within genders and suggests a weak but significant link between gender and *d*-score, with females showing a higher sustainability perception with higher prices than males as shown in Tab. 9.

The analysis shows a weak positive correlation ($r = 0.12$, $p = 0.0255$) between the importance placed on sustainability in shopping and the *d*-score. *D*-scores decrease from strong disagreement to strong agreement with the sustainability statement, indicating lower authenticity perceptions at higher prices with greater sustainability emphasis. Standard deviations showing more homogeneous perceptions among those somewhat disagreeing and more diverse perceptions among those agreeing. The distribution shows that over 83% of participants strive for sustainability as shown in Tab. 10.

The analysis shows a moderate positive correlation ($r = 0.37$, $p < 0.001$) between the importance of choosing sustainable products and the *d*-score. *D*-scores decline from strong disagreement (0.839) to strong agreement (−0.142) with the sustainability statement, reflecting lower authenticity perceptions with greater sustainability emphasis. Standard deviations range from 0.002 (disagreement) to 0.555 (agreement), indicating more consistent perceptions among those disagreeing. Tab. 11 highlights a trend towards sustainable shopping

Tab. 7: Correlations of socioeconomic factors and explicit

Correlation of <i>d</i> -score to:	<i>r</i>	<i>n</i>	<i>t</i>	<i>p</i>
Gender	0.17	368	3.22	0.0014
Age (categories, 5 years)	0.00	368	0.04	0.9688
DACH Nationality	0.47	368	10.06	0.0000
Professional qualification	0.15	368	2.96	0.0033
Importance of sustainability: Sustainability is important to me	0.07	368	1.27	0.2037
Importance of sustainability: I strive for a sustainable lifestyle	0.12	368	2.24	0.0255
Importance of sustainability: I make sure to choose sustainable products when shopping	0.37	368	7.61	0.0000
Value: I expect sustainable products to be more expensive	0.28	368	5.56	0.0000
Value: I would buy more sustainable products if they were cheaper	0.26	368	5.14	0.0000
Value: I consider sustainable products to be trustworthy	0.53	368	12.04	0.0000
Value: I would like sustainable products to be cheaper	0.26	368	5.10	0.0000
Sustainability categories: Social	0.16	368	3.18	0.0016
Sustainability categories: Economic	0.07	368	1.30	0.1945
Sustainability categories: Ecological	0.16	368	3.13	0.0019

Note: *r* = correlation coefficient, *n* = sample size, *t* = number of degrees of freedom, *p* = *p*-value – significance.

Source: Questionnaire survey, November 2023 and July 2024, *n* = 368

Tab. 8: *d*-score after Country of origin

Country of origin	Germany	Austria	Switzerland	Total
Average of improved <i>d</i> -score	−0.141	0.330	0.494	0.211
StdDev of improved <i>d</i> -score	0.323	0.556	0.562	0.558
Count of Interviews	131	128	109	368

Source: Questionnaire survey, November 2023 and July 2024, *n* = 368

Tab. 9: *d*-score after Gender

Gender	Male	Female	Total
Average of improved <i>d</i> -score	0.122	0.308	0.211
StdDev of improved <i>d</i> -score	0.580	0.515	0.558
Count of Interviews	192	176	368

Source: Questionnaire survey, November 2023 and July 2024, *n* = 368

Tab. 10: *d*-score after Importance of sustainability: I strive for a sustainable lifestyle

Importance of sustainability: I strive for a sustainable lifestyle	Somewhat disagree	Neutral	Somewhat agree	Strongly agree	Total
Average of improved <i>d</i> -score	0.839	0.042	−0.175	0.537	0.211
StdDev of improved <i>d</i> -score	0.002	0.666	0.256	0.504	0.558
Count of Interviews	27	33	157	151	368

Source: Questionnaire survey, November 2023 and July 2024, *n* = 368

Tab. 11: *d*-score after Importance of sustainability: I make sure to choose sustainable products when shopping

Importance of sustainability: I make sure to choose sustainable products when shopping	Strongly disagree	Rather disagree	Neutral	Rather agree	Strongly agree	Total
Average of improved <i>d</i> -score	0.839	0.492	−0.341	0.465	−0.142	0.211
StdDev of improved <i>d</i> -score	0.002	0.532	0.225	0.555	0.261	0.558
Count of Interviews	27	19	35	162	125	368

Source: Questionnaire survey, November 2023 and July 2024, *n* = 368

Tab. 12: *d*-score after Value: I expect sustainable products to be more expensive

Value: I expect sustainable products to be more expensive	Neutral	Rather agree	Strongly agree	Total
Average of improved <i>d</i> -score	−0.250	0.368	−0.049	0.211
StdDev of improved <i>d</i> -score	0.005	0.469	0.609	0.558
Count of Interviews	8	233	127	368

Source: Questionnaire survey, November 2023 and July 2024, *n* = 368

behavior and its impact on authenticity perceptions.

The analysis reveals a moderate positive correlation ($r = 0.28$, $p < 0.001$) between the expectation that sustainable products will be more expensive and the *d*-score. Those expecting higher prices for sustainable products have slightly more positive authenticity perceptions. The average *d*-score generally increases with agreement on expected higher prices, except for those who strongly agree, where it decreases. Most participants agree with the expectation of higher prices for sustainable products (233 and 127 interviews, respectively), indicating a common perception among participants as shown in Tab. 12.

The analysis shows a moderate positive correlation ($r = 0.26$, $p < 0.001$) between willingness to buy more sustainable products at lower prices and *d*-score. Those open to cheaper sustainable products view their authenticity more positively as prices rise, with *d*-scores peaking for those strongly agreeing. Percep-

tion variability is most homogeneous among those rather disagreeing (0.008) and most diverse among those strongly agreeing (0.596). Most participants agree (23) or strongly agree (273) with buying cheaper sustainable products, indicating a common preference. This paradox shows a preference for lower prices contrasts with increased trust in authenticity at higher prices, reflecting consumer uncertainty as shown in Tab. 13.

The analysis reveals a strong positive correlation ($r = 0.53$, $p = 0.00$) between seeing sustainable products as trustworthy and higher *d*-scores, indicating that those who trust in sustainability tend to perceive higher authenticity in products with increased prices. *D*-scores rise with growing trust, peaking for strong believers in sustainability’s trustworthiness (highest average *d*-score: 0.696). Variability within groups is noted, with those strongly disagreeing showing the most homogeneity (lowest standard deviation: 0.107) and those somewhat agreeing to show the most diversity (highest standard

Tab. 13: *d*-score after Value: I would buy more sustainable products if they were cheaper

Value: I would buy more sustainable products if they were cheaper	Rather disagree	Neutral	Rather agree	Strongly agree	Total
Average of improved <i>d</i> -score	0.030	−0.247	−0.379	0.326	0.211
StdDev of improved <i>d</i> -score	0.008	0.110	0.125	0.596	0.558
Count of Interviews	55	17	23	273	368

Source: Questionnaire survey, November 2023 and July 2024, *n* = 368

Tab. 14: d -score after Value: I consider sustainable products to be trustworthy

Value: I consider sustainable products to be trustworthy	Rather disagree	Neutral	Rather agree	Strongly agree	Total
Average of improved d -score	-0.022	-0.208	-0.326	0.696	0.211
StdDev of improved d -score	0.107	0.136	0.437	0.275	0.558
Count of Interviews	68	18	111	171	368

Source: Questionnaire survey, November 2023 and July 2024, $n = 368$

Tab. 15: d -score after Value: I would like sustainable products to be cheaper

Value: I would like sustainable products to be cheaper	Rather disagree	Neutral	Rather agree	Strongly agree	Total
Average of improved d -score	-0.012	-0.167	-0.290	0.316	0.211
StdDev of improved d -score	0.126	0.027	0.077	0.605	0.558
Count of Interviews	61	11	22	274	368

Source: Questionnaire survey, November 2023 and July 2024, $n = 368$

deviation: 0.437). Most participants agree or strongly agree that sustainable products are trustworthy (111 and 171 interviews, respectively), highlighting a widespread positive perception of sustainability. This suggests that trust in sustainability correlates with more positive authenticity perceptions at higher prices as shown in Tab. 14.

The analysis shows a moderate positive correlation ($r = 0.26$, $p < 0.001$) between the desire for more affordable sustainable

products and d -scores. Those who wish for cheaper sustainable options tend to perceive them as more authentic. Disagreement with the need for lower prices correlates with less positive authenticity perceptions, improving as agreement increases. Most participants agree or strongly agree with the need for cheaper sustainable products (274 and 22 interviews, respectively), suggesting affordability concerns positively impact authenticity perceptions with higher price as shown in Tab. 15.

5 DISCUSSION

In the following, the results of the study are contextualized within the current state of research, and open and further research questions are defined. Additionally, the study’s limitations are discussed, and potential improvements in the study design are highlighted.

5.1 Context in the State of Research

Research shows consumers are willing to pay a premium for sustainable products due to perceived health benefits and intrinsic value (Rivera-Toapanta et al., 2022; Garcez de Oliveira Padilha et al., 2021). Our findings align, indicating participants perceive sustainable products as more expensive, with implicitly perceived authenticity increasing accordingly. This suggests a need for strategies to maintain

the perception of sustainability at lower or comparable prices, possibly through additional labeling or information.

German consumers show lower d -scores, reflecting limited trust in higher-priced products, likely due to their significant price sensitivity. Discount supermarkets accounted for over 37% of food purchases in 2023, while organic products held only a 6.3% market share in 2022 (GfK, 2024). Austrian consumers demonstrate moderate price sensitivity, with discount stores representing 29% of food purchases and organic food 11% in 2022. Swiss consumers, with higher incomes and living costs, are least price-sensitive, as shown by a 22% share of discount stores and 11.6% organic food market share in 2023. German consumers may trust lower-priced sustainable products more than others,

emphasizing the importance of tailored pricing strategies for each country.

Results indicate that expensive products are perceived as more authentically sustainable, aligning with findings that women and educated individuals are more willing to pay premiums for eco-labeled foods (Bastounis et al., 2021). However, discrepancies between willingness-to-pay (WTP) and trust suggest social and environmental influences, particularly among older and higher-educated individuals, warrant further study.

A moderate correlation ($r = 0.26, p < 0.001$) was found between affordability preferences and trust in higher prices, highlighting a paradox: consumers trust expensive sustainable products but prefer affordability. This underscores high price sensitivity, suggesting strategies like taxing unsustainable products or subsidizing sustainable options to maintain perceived authenticity without compromising affordability (Parker et al., 2021; Schütz et al., 2021). Policies ensuring price parity could further motivate less environmentally conscious consumers toward sustainable choices.

5.2 Representativeness

Concerning the selected experimental design, it is imperative to acknowledge that inaccuracies may arise due to the following factors:

Socioeconomic structure. The study cohort reflects reasonable diversity across gender, age, education, and origin. However, the overrepresentation of individuals with higher education levels and specific age groups introduces potential biases, particularly toward perspectives linked to greater educational attainment. Regional variations may also influence viewpoints. These demographic patterns may limit the broader applicability of the findings, and researchers should exercise caution in generalizing results. Future studies with more diverse samples are needed to enhance the robustness of generalizability.

Inaccuracies in the IAT. Furthermore, it is imperative to note at this juncture that inaccuracies may occur in the IAT test. One factor is, that it also depends on the subjects' reaction time, which can result in inaccuracies.

In the further course, the figures presented in the IAT can be further investigated to see how the results affect the analysis. The reaction time can also be influenced by the device used and the internet speed. The following results must be considered on this basis.

The findings presented in this study provide insights into the intricate dynamics of consumers' authenticity perceptions within the nexus of sustainability and pricing. Utilizing the Implicit Association Test (IAT) to gauge participants' implicit biases, the results reveal a moderate implicit association, indicating a discernible preference for concepts aligned with the 'high price' category.

5.3 Limitation

While this study provides valuable insights into sustainable consumption behaviors, its validity cannot be fully guaranteed due to several limitations. The sample size of 368 respondents aligns with IAT research recommendations (200–400 participants for correlational studies) and exceeds the minimum required to detect medium effect sizes (Cohen's $d \approx 0.5$). However, it remains modest for representing Germany, Austria, and Switzerland, potentially limiting generalizability across diverse demographics. Older adults (65+), comprising only 3% of the sample, are significantly underrepresented, and the exclusion of non-binary individuals further narrows gender-based insights. Differences in tertiary education levels, particularly in Switzerland, may also skew cross-country comparisons. The use of the IAT, while effective for measuring implicit attitudes, is constrained by moderate test-retest reliability (~ 0.50), which could affect individual-level results. Similar limitations are noted in studies such as Pennington et al. (2023), where comparable sample sizes produced reliable but context-sensitive findings. Furthermore, the study's focus on the German-speaking food market restricts the applicability of results to broader contexts. Despite these limitations, the methodology aligns with best practices in the field, and the study contributes meaningful insights when interpreted within its methodological constraints.

6 CONCLUSIONS

This study aimed to determine whether an increased price directly influences the perceived authenticity of sustainable products, regardless of processing and understanding. The results confirm Hypothesis 1, showing a positive correlation between the price of a sustainable product and its perceived authenticity, as measured by the Implicit Association Test (IAT). An average d -score of 0.24 indicates a moderate level of implicit association, with considerable variability (standard deviation of 0.506) in participants' responses.

Higher prices enhance the perceived authenticity of sustainable products, which is significant for marketers and producers aiming to improve consumer perceptions of authenticity. Analysis across DACH nationalities, sex, and attitudes highlights the importance of understanding regional and demographic differences in price sensitivity and authenticity perception.

Future research should explore the price point at which perceived authenticity declines and leads to a loss of trust, differences in price perception and authenticity among DACH countries, and gender-specific differences in willingness to pay for sustainable products. Ad-

ditionally, examining the impact of educational attainment on perceptions and purchasing behavior, conducting longitudinal studies, and assessing the effectiveness of different marketing strategies are recommended.

The study also emphasizes the need to address the paradox where trust in sustainable products increases with price, yet consumers desire lower prices. Investigating optimal pricing for various consumer groups is essential. Technological, business, and political perspectives highlight the importance of aligning product value with consumer-perceived worth and implementing nuanced, context-specific approaches.

Despite certain limitations, such as the overrepresentation of higher-educated individuals, this study provides valuable insights into the complex interplay between price, authenticity, and consumer behavior. These findings pave the way for future research and strategic considerations for businesses navigating consumer attitudes towards sustainability and authenticity. The identified paradoxes need to be further defined through dedicated research, and the pricing factor quantified, to develop economically viable strategies.

7 REFERENCES

- AMMANN, J., ARBENZ, A., MACK, G., NEMECEK, T. and EL BENNI, N. 2023. A Review on Policy Instruments for Sustainable Food Consumption. *Sustainable Production and Consumption*, 36, 338–353. DOI: j.spc.2023.01.012.
- AROURI, M., EL GHOUL, S. and GOMES, M. 2021. Greenwashing and Product Market Competition. *Finance Research Letters*, 42, 101927. DOI: 10.1016/j.frl.2021.101927.
- BASTOUNIS, A., BUCKELL, J., HARTMANN-BOYCE, J., COOK, B., KING, S., POTTER, C., BLANCHI, F., RAYNER, M. and JEBB, S. A. 2021. The Impact of Environmental Sustainability Labels on Willingness-to-Pay for Foods: A Systematic Review and Meta-Analysis of Discrete Choice Experiments. *Nutrients*, 13 (8), 2677. DOI: 10.3390/nu13082677.
- Bibliographisches Institut. 2017. *Duden: Die Deutsche Rechtschreibung*. Berlin: Bibliographisches Institut.
- BICKART, B. A. and RUTH, J. 2012. Green Eco-Seals and Advertising Persuasion. *Journal of Advertising*, 41 (4), 53–69. DOI: 10.2139/ssrn.2036977.
- BÖLW. 2023. *Anteil von Bio-Lebensmitteln am Lebensmittelumsatz in Deutschland in den Jahren 2011 bis 2021* [online]. Available at: <https://de.statista.com/statistik/daten/studie/360581/umfrage/marktanteil-von-biolebensmitteln-in-deutschland/>
- Bundesamt. 2024a. *Ergebnis Zensus 2022 – Demografie*. Wiesbaden: Statistische Ämter des Bundes und der Länder.
- Bundesamt. 2024b. *Ergebnisse des Zensus 2022 – Bildung und Erwerbstätigkeit*. Wiesbaden: Statistische Ämter des Bundes und der Länder.
- Bundesamt für Statistik. 2023. *Wirtschaftliche und soziale Situation der Bevölkerung* [online]. Bundesamt für Statistik.

- Bundesverband. 2022. *Label online* [online]. Available at: <https://label-online.de/>
- Capgemini Research Institute. 2020. *How Sustainability is Fundamentally Changing Consumer Preferences* [online]. Available at: <https://www.capgemini.com/de-de/wp-content/uploads/sites/5/2020/07/Final-Web-Report-Sustainability-In-CPRD.pdf>
- CARMELA APRILE, M. and PUNZO, G. 2022. How Environmental Sustainable Labels Affect Food Choices: Assessing Consumer Preferences in Southern Italy. *Journal of Cleaner Production*, 332. DOI: 10.1016/j.jclepro.2021.130046.
- CASWELL, J. A. and MOJDUSZKA, E. M. 1996. Using Informational Labeling to Influence the Market for Quality in Food Products. *American Journal of Agricultural Economics*, 78 (5), 1248–1253. DOI: 10.2307/1243501.
- CHOI, S. and FEINBERG, R. A. 2018. The LOHAS Lifestyle and Marketplace Behavior. In *Handbook of Engaged Sustainability*. Springer, Cham. DOI: 10.1007/978-3-319-53121-2_10-1.
- COOK, B., COSTA LEITE, C., RAYNER, M., STOFFEL, S., VAN RIJN, E. and WOLLGAST, J. 2023. Consumer Interaction with Sustainability Labelling on Food Products: A Narrative Literature Review. *Nutrients*, 15 (17), 3837. DOI: 10.3390/nu15173837.
- DARBY, M. R. and KARNI, E. 1973. Free Competition and the Optimal Amount of Fraud. *The Journal of Law and Economics*, 16 (1), 67–88. DOI: 10.1086/466756.
- Deloitte. 2023. *Consumer Insights 2023: Sustainability* [online]. Available at: <https://www2.deloitte.com/de/de/pages/consumer-business/articles/consumer-insights-2023-sustainability.html>
- Duden. 2022. *Synonyms* [online]. Available at: <https://www.duden.de/>
- Edelman. 2022. *Edelman Trust Barometer* [online]. Available at: <https://www.edelman.com/trust/2022-trust-barometer>.
- GARCEZ DE OLIVEIRA PADILHA, L., MALEK, L. and UMBERGER, W. J. 2021. Sustainable Meat: Looking through the Eyes of Australian Consumers. *Sustainability*, 13 (10), 5398. DOI: 10.3390/su13105398.
- GfK. 2024. *Umsatzanteil von Discountern im Lebensmitteleinzelhandel in Deutschland in den Jahren 2020 bis 2023*.
- GIM. 2020. *Ergebnisse: VKE-Nachhaltigkeitsstudie* [online]. Available at: https://www.g-i-m.com/_Resources/Persistent/050b843cc8fb76d6ca2e6c2b7e2b241a372155d3/GIM-VKE-Nachhaltigkeitstudie-2020.pdf
- GORTON, M., TOCCO, B., YEH, C.-H. and HARTMANN, M. 2021. What Determines Consumers' Use of Eco-Labels? Taking a Close Look at Label Trust. *Ecological Economics*, 189. DOI: 10.1016/j.ecolecon.2021.107173.
- GREENWALD, A. G., NOSEK, B. A. and BANAJI, M. R. 2003. Understanding and Using the Implicit Association Test: I. An Improved Scoring Algorithm. *Journal of Personality and Social Psychology*, 85 (2), 197–216. DOI: 10.1037/0022-3514.85.2.197.
- GREENWALD, A. G., MCGHEE, D. E. and SCHWARTZ, J. L. K. 1998. Measuring Individual Differences in Implicit Cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, 74 (6), 1464–1480. DOI: 10.1037/0022-3514.74.6.1464.
- GUTIERREZ, A. M. J., CHIU, A. S. F. and SEVA, R. 2020. A Proposed Framework on the Affective Design of Eco-Product Labels. *Sustainability*, 12 (8), 3234. DOI: 10.3390/su12083234.
- HONG, Y., AL MAMUN, A., MASUKUJAMAN, M. and YANG, Q. 2024. Sustainable Consumption Practices among Chinese Youth. *Humanities and Social Sciences Communications*, 11. DOI: 10.1057/s41599-024-03582-5.
- HUGHNER, R. S., McDONAGH, P., PROTHERO, A., SHULTZ, C. J. and STANTON, J. 2007. Who Are the Organic Food Consumers? A Compilation and Review of Why People Purchase Organic Food. *Consumer Behaviour*, 6 (2–3), 94–110. DOI: 10.1002/cb.210.
- JAHN, S. 2018. *Wie verarbeiten Verbraucher Nährwertinformationen?* In TEITSCHIED, P., LANGEN, N., SPECK, M. and ROHN, H. (eds.). *Nachhaltig außer Haus essen*, pp. 305–314). Oekom.
- LI, S. and KALLAS, Z. 2021. Meta-Analysis of Consumers' Willingness to Pay for Sustainable Food Products. *Appetite*, 163. DOI: 10.1016/j.appet.2021.105239.
- MARETTE, S., MESSÉAN, A. and MILLET, G. 2012. Consumers' Willingness to Pay for Eco-Friendly Apples Under Different Labels: Evidences from a Lab Experiment. *Food Policy*, 37 (2), 151–161. DOI: 10.1016/j.foodpol.2011.12.001.
- Nielsen, GfK, BÖLW, bioVista and BNN. 2023. *Statista* [online]. Available at: <https://de.statista.com/statistik/daten/studie/4109/umfrage/bio-lebensmittel-umsatz-zeitreihe/>
- PARKER, C., CAREY, R., HAINES, F. and JOHNSON, H. 2021. Can Labelling Create Transformative Food System Change for Human and Planetary Health? A Case Study of Meat. *International Journal of Health Policy and Management*, 10 (12), 923–933. DOI: 10.34172/ijhpm.2020.239.

PENNINGTON, C., PLOSZAJSKI, M., MISTRY, P., NGOMBE, N., BACK, C., PARSONS, S. and SHAW, D. J. 2023. Relationships between the Race Implicit Association Test and Other Measures of Implicit and Explicit Social Cognition. *Frontiers in Psychology*, 14. DOI: 10.3389/fpsyg.2023.1197298.

RIVERA-TOAPANTA, E., KALLAS, Z., ČANDEK-POTOKAR, M., GONZALEZ, J., GIL, M., VARELA, E., FAURE, J., CERJAK, M., URŠKA, T., AQUILANI, C., LEBRET, B., KAROLYI, D., PUGLIESE, C. and GIL, J. M. 2022. Marketing Strategies to Self-Sustainability of Autochthonous Swine Breeds from Different EU Regions: A Mixed Approach using the World Café Technique and the Analytical Hierarchy Process. *Renewable Agriculture and Food Systems*, 37 (1), 92–102. DOI: 10.1017/S1742170521000363.

SCHMUCK, D., MATTHES, J. and NADERER, B. 2018. Misleading Consumers with Green Advertising? An Affect–Reason–Involvement Account of Greenwashing Effects in Environmental Advertising. *Journal of Advertising*, 47 (2), 127–145. DOI: 10.1080/00913367.2018.1452652.

SCHOENHEIT, I. 2014. Corporate Social Responsibility und Konsumenten. In HILTY, R. M. and HENNING-BODEWIG, F. (eds.). *Corporate Social Responsibility: Verbindliche Standards des Wettbewerbsrechts?*, pp. 41–48. Heidelberg: Springer. DOI: 10.1007/978-3-642-54005-9_5.

SCHÜTZ, K., KLÜSENER, K. and MERGENTHALER, M. (2021). Opportunities and Risks of Market Differentiation Through Innovative Supply Relationships for More Animal Welfare and Sustainability in Agricultural Livestock Farming in North Rhine-Westphalia from the Perspective of Industry Representatives. *Berichte über Landwirtschaft*, 99 (1). DOI: 10.12767/buel.v99i1.318.

SoSci. 2022. *Impliziter Assoziationstest (IAT)* [online]. Available at: <https://www.soscisurvey.de/help/doku.php/de:create:questions:iat>

Statistics Austria. 2024. *Results of the Register-based Census*.

United Nations. 2023. *Achieving SDG 12: Bridging the Intent-Action Gap among Young Consumers*.

VAN LOO, E. J., CAPUTO, V., NAYGA, R. M. and VERBEKE, W. 2014. Consumers’ Valuation of Sustainability Labels on Meat. *Food Policy*, 49 (1), 137–150. DOI: 10.1016/j.foodpol.2014.07.002.

















Vaude and Appinio. 2023. *Hast du bereits von dem Begriff “Greenwashing” gehört?* [online]. Available at: <https://de.statista.com/statistik/daten/studie/1418561/umfrage/umfrage-zur-bekanntheit-des-begriffs-greenwashing-in-deutschland/>

VEGA-ZAMORA, M., TORRES-RUIZ, F. J. and PARRAS-ROSA, M. 2018. Towards Sustainable Consumption: Keys to Communication for Improving Trust in Organic Foods. *Journal of Cleaner Production*, 216, 511–519. DOI: 10.1016/j.jclepro.2018.12.129.

ZIESEMER, F., HÜTTEL, A. and BALDERJAHN, I. 2021. Young People as Drivers or Inhibitors of the Sustainable Movement: The Case of Anti-Consumption. *Journal of Consumer Policy*, 44, 427–453. DOI: 10.1007/s10603-021-09498-x.

8 ANNEX

Tab. 16: IAT Attributes

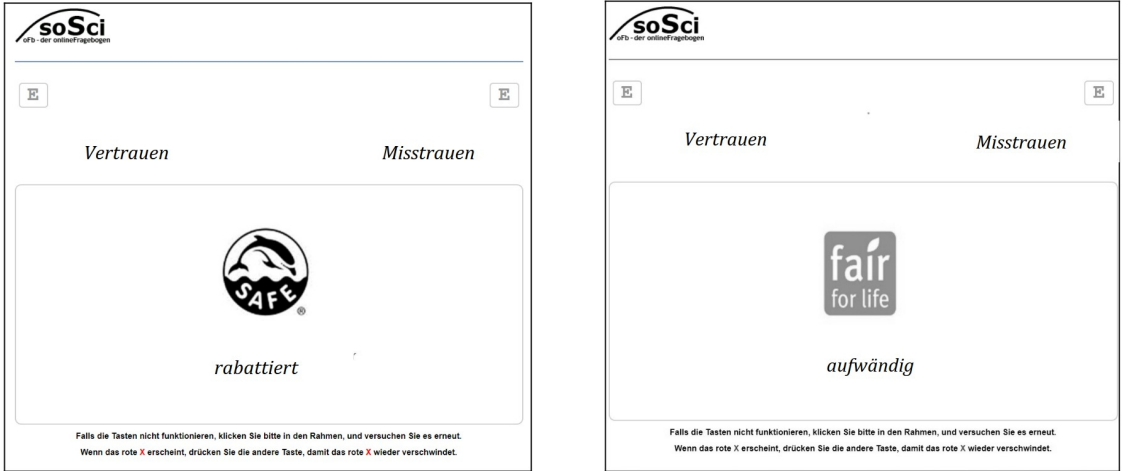
#	A: Label with low price	B: Label with high price	#	A: Label with low price	B: Label with high price
1	 günstig	 hochpreisig	5	 kostenineffizient	 wertvoll
2	 preiswert	 kostspielig	6	 rabattiert	 kostbar
3	 einfach	 kostenintensiv	7	 kosteneffizient	 aufwändig
4	 erschwinglich	 wertig	8	 preisbewusst	 preisintensiv

Tab. 17: Preliminary Questions

#	Assessment statement (English)	Response Options (English)	Intent
1	Sex	Male, female, divers	Socio-demographic classification and inferences
2	Age	15–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65 or older	Socio-demographic classification and inferences
3	Nationality	Germany, Austria, Switzerland	Socio-demographic classification and inferences
4	Professional qualification	No professional training qualification Completed industrial or agricultural apprenticeship Completed commercial apprenticeship Vocational school diploma Master craftsman's, technicians, or equivalent technical college qualification Degree from a university of applied sciences University degree	Socio-demographic classification and inferences
5	Importance of sustainability: Sustainability is important to me	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception importance sustainability
6	Importance sustainability: I strive for a sustainable lifestyle	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception importance sustainability
7	Importance of sustainability: I make sure to choose sustainable products when shopping	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception importance sustainability
8	Value: I expect sustainable products to be more expensive	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception importance sustainability
9	Value: I would buy more sustainable products if they were cheaper	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception importance sustainability
10	Value: I consider sustainable products to be trustworthy	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception dealing with sustainability
11	Value: I would like sustainable products to be cheaper	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception dealing with sustainability
12	Sustainability categories: Social	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception importance social sustainability
13	Sustainability categories: Economic	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception importance economic sustainability
14	Sustainability categories: Ecological	Strongly disagree, disagree, neither disagree nor agree, agree, strongly agree	Explicit perception importance ecologic sustainability

Note: In the survey, response options were provided in German. At this point, for better understanding, they are presented in English for demonstration purposes.

Tab. 18: IAT-View in SoSci



Tab. 19: List of correlational IAT research

Year	Field	Sample Size	Content	Paper Name	Source
2022	Socio-Cognitive Psychology	235 participants	Examined how the race-IAT correlates with other implicit socio-cognitive measures like empathy, emotion recognition, and perspective-taking.	Implicit Bias and Socio-Cognitive Measures of Empathy	Frontiers in Psychology, 2022
2022	Youth Well-Being	Children and adolescents	Developed the WB-IAT-Y to assess implicit well-being among youth, revealing new potential for mental health assessments.	Youth Well-Being through Implicit Measures: WB-IAT-Y	Springer, 2022
2021	Healthcare	Various healthcare providers	Used the IAT to examine racial and weight-based biases in healthcare providers and their impact on patient care.	Implicit Bias in Healthcare: A Global Review	BMC Public Health, 2021
2021	Political Science	Undisclosed	Studied the impact of implicit biases on political preferences and decisions in politically polarized environments.	Political Preferences and Implicit Biases in Polarized Environments	MIT Press, 2021
2021	Gender Studies	300 participants	Explored implicit gender biases, particularly the backlash against women who exhibit stereotypically male traits.	Implicit Gender Bias and Backlash toward Agentic Women	Journal of Social Issues, 2021
2021	Political Psychology	400 participants	Measured implicit political biases and their influence on decision-making in politically polarized environments.	Affect, Not Ideology: Implicit Bias in Political Polarization	Public Opinion Quarterly, 2020
2020	Healthcare	1,150 physicians	Examined implicit racial biases among healthcare professionals and their impact on patient care.	Physicians Implicit and Explicit Attitudes about Race by MD Race, Ethnicity, and Gender	Journal of Health Care for the Poor and Underserved, 2021
2020	Consumer Behavior	Undisclosed (brand studies)	Used the IAT to assess implicit attitudes towards brands, showing a correlation with consumer behavior.	Predictive Validity of the Implicit Association Test in Studies of Brands	Journal of Consumer Psychology, 2020
2020	Education	200–300 students	Investigated implicit biases in educational settings, particularly regarding stereotype threats in STEM fields.	Stereotype Threat and Implicit Bias in STEM Education	Personality and Social Psychology Bulletin, 2020

AUTHOR’S ADDRESS

Julian Hoesen, Faculty of Business and Economics, Mendel University in Brno, Zemědělská 1, 613 00 Brno, Czech Republic, e-mail: xhoesen@mendelu.cz