

Perception and Processing of 'Green' Cues in Fashion Online Stores: An Eye Tracking Experiment

David Bourdin

FHWien der WKW University of Applied Sciences

Lisa Greslehner

FHWien der WKW University of Applied Sciences

Ilona Pezenka

FHWien der WKW University of Applied Sciences for Management & Communication

Cite as:

Bourdin David, Greslehner Lisa, Pezenka Ilona (2023), Perception and Processing of 'Green' Cues in Fashion Online Stores: An Eye Tracking Experiment. *Proceedings of the European Marketing Academy*, (117259)

Paper from the EMAC Regional Conference, Athens, Greece, September 27-29, 2023



Perception and Processing of ‘Green’ Cues in Fashion Online Stores: An Eye Tracking Experiment

Abstract:

Fashion brands have been witnessing unprecedented growth, but at the same time, consumers increasingly incorporate CSR considerations into their purchase decisions while expecting authenticity and transparency in companies’ green marketing efforts. To gain an understanding of how online shoppers process eco-friendly cues, we conducted an eye tracking experiment ($N = 77$) in which we investigate the role of two product attributes and two design elements on consumers’ perceptions of fashion stores and their products. We found that product country of origin and website colors play a role, while eco-labels and different brand logo shapes do not.

Keywords: green marketing, e-commerce, eye tracking.

1. Introduction

Electronic commerce has been continuously growing. 68% of Europeans purchased something online in 2022, with clothing being the most popular category, as 42% of European online shoppers ordered clothes (Eurostat, 2023). The fashion industry in particular has witnessed spectacular growth. Consumers bought 60% more garments in 2014 than in 2000 (McKinsey, 2016). However, they only kept them for half as long on average, a development that has been accelerated by the “fast fashion” boom, referring to inexpensive clothing produced rapidly by mass-market retailers in response to fashion trends. Fashion businesses have aggressively cut their costs, streamlined their supply chains, and shortened their production lead times (Cachon & Swinney, 2011), allowing them to introduce new product lines more frequently. For example, Zara offers 24 and H&M between 12 and 16 new clothing collections each year.

Shoppers might long have been overlooking or tolerating the environmental and social costs of fast fashion, but recently the general population’s awareness of sustainability-related issues has been increasing, and media coverage of such issues has become more widespread, partly due to the international movement “School Strike for Climate”, also known as “Fridays for Future”. Thus, while the fashion sector is booming, increasing attention has been brought to the range of negative environmental and social impacts that the industry is responsible for. After all, fashion production accounts for 10% of global carbon emissions, dries up water sources, pollutes rivers and oceans with microplastics, and 85% of all textiles end up on waste dumps (UNECE, 2018). Furthermore, textile workers are primarily women in developing countries who are often underpaid and forced to work long hours in unsafe conditions, which sometimes even creates infringements on human rights (Human Rights Watch, 2023).

Against this background, clothing firms are increasingly addressing their corporate social responsibility (CSR) in their marketing communications, both in explicit and more subtle ways. However, consumers’ skepticism towards CSR brand claims has also been growing and companies are sometimes accused of “greenwashing” (Baldassarre & Campo, 2016; De Jong et al., 2018; Leonidou & Skarmas, 2017). Consumers – especially younger ones – now expect more authenticity and transparency from companies’ CSR efforts and include these considerations in their purchase decisions (Gazzola et al., 2020). Consequently, several players in the fashion industry have been adopting measures that allow them to thrive in a competitive environment with innovative business models while also respecting society and avoiding actions that harm the planet (Todeschini et al., 2017).

Clothing retailers that genuinely strive for having a positive environmental and societal impact (e.g., in setting up their assortment or managing their supply chain) are therefore confronted with the question of how to best position their brand and how to communicate and signal their efforts to customers in order to set themselves apart from competitors that might attach less importance to CSR. In this paper, we focus on product attributes and visual design elements in online clothing stores. We report the results of an experiment in which we investigate the role of (a) country-of-origin claims, (b) eco-labels, (c) header colors, and (d) brand logo shapes on online shoppers’ perceived sustainability and quality of products in fashion web shops. In addition to assessing participants’ self-reported evaluations, we analyze eye tracking data, which allows us to examine how shoppers’ demographics and their environmental consciousness influence the way in which they visually process CSR-signaling cues in online stores. We included these objective and reliable measures of visual attention (Carter et al., 2020) in our analyses because relying solely on self-reported answers might potentially result in shortcomings due to participants’ lack of awareness, impression management, or articulation problems (Baumgartner & Weijters, 2019).

This contribution extends previous work in at least three aspects. First, in contrast to most e-commerce studies, we use eye tracking to capture visual attention. Since visual attention is a

prerequisite of purchase in a retail environment (Huddleston et al., 2018), this method is particularly well-suited to explore purchasing decision processes in an objective way. Although, eye tracking has been widely employed in human-computer interactions and usability research (Boardman & McCormick, 2022), it has been rarely used for addressing product attitudes and preferences. Second, unlike previous eye tracking studies (e.g., Halkias et al., 2022), we focus on four factors that have been shown to influence online shoppers' perceptions of a product's or retailer's quality and eco-friendliness, namely country-of-origin, eco-labels, and design elements (header color and logo shape). Further, in our investigation of color effects in green marketing, we deliberately focus on the color *sand* to add novelty to our findings and to avoid merely replicating results regarding the color green, which has been widely researched already.

2. Conceptual Background and Hypotheses

Customers' perceptions of an online shop are determined by several factors. This paper, however, is not dedicated to the usability and the technical aspects (e.g., navigation, loading times, responsiveness, font types, easy payment) of online stores, but we instead specifically focus on two product attributes (country of origin and eco-label) and two design elements (use of colors and shape of brand logo). Deciding about which product attributes to mention or highlight is of particular managerial importance for any online store. One reason why purchasing habits do not always reflect consumer's environmental concerns is that they find it difficult to identify and evaluate environmentally friendly product options. Often, there are only a few clues as to what the environmental impact of a product is. Since many consumers value sustainability but do not want to spend excessive time researching products, informational cues that can help them make informed purchasing decisions are highly appreciated and can increase the purchase likelihood of "green" products (Shao et al., 2022; Takahashi, 2021). However, in order to trigger eco-friendly purchases, the information conveyed about ethical product features should be comprehensible, meaningful, and credible for consumers (Osburg et al., 2017). Although shoppers might consider a plethora of product attributes when browsing through items in a fashion online store (e.g., price, garment colors, expected bodily fit, fabric material, reviews and ratings by other customers, etc.), our research focuses on two specific attributes that we deem highly relevant (i.e., country of origin and eco-labels) in the context of ethically-driven purchase decisions for the reasons described in the respective sections that follow.

Likewise, with regard to the overall design of a fashion online store, consumers perceptions might depend on several factors, such as the visual complexity (e.g., number of elements, consistency and arrangement of elements, etc.). Nevertheless, given our focus on CSR-related consumer perceptions, we limit ourselves to two design elements that have been shown to be particularly relevant in this context and that have the ability to implicitly convey a retailer's "green" positioning, namely the use of colors and the shape of the online store's brand logo.

2.1. *Country-of-Origin Declarations*

One way in which buyers can draw conclusions about the environmental and social footprint of a product is by indicating its country of origin. The image of a country is a decisive factor in how a product is perceived. This consists of several determinants, such as the population, politics, climate, technology, and economy. A positive country-of-origin image can increase customers' willingness to pay a price premium and create a market advantage compared to other products (Dekhili et al., 2021). For example, Xiao and Myers (2022) found that environmentally friendly products are evaluated more unfavorably if they are declared as being

“Made in China” than “Made in Switzerland”. The ecological image of a country affects both the perceived sustainability of products originating from that country as well as the perceived credibility of “green” brand claims pertaining to products from that country. Besides exhibiting perceptual differences with regard to various foreign countries, consumers generally view clothing items that were manufactured in their home country as being of superior quality compared to foreign-made products (Lang & Crown, 1993). Finally, in an eye tracking study, Halkias et al. (2022) found that consumers tend to consider country-of-origin cues as highly diagnostic in forming their product judgments, but only after they invest considerable visual attention to them. In other words, country-of-origin effects only manifest themselves in product evaluations when consumers spend more time fixating a country-of-origin cue, which allows them to consciously process the cue and link it to their memorized country image. Taken together, we propose the following hypotheses based on these findings:

- **H1:** The ecological footprint of a clothing item produced in China is perceived as worse than that of a domestic (Austrian) item.
- **H2:** The quality of a clothing item produced in China is perceived as worse than that of a domestic (Austrian) item.
- **H3:** When a clothing item is declared as being produced in China, CSR perceptions of the fashion online store selling it are lower than when the item is declared as being produced domestically (in Austria).
- **H4:** The more time is spent visually fixating a country-of-origin cue, the less environmentally friendly a clothing item produced in China is perceived as in comparison to a domestically-produced one (in Austria).

2.2. *Eco-Labels*

Labels that attract consumers’ attention, are easy to understand, and appear repeatedly across different products and brands are a simple method of communicating compliance with certain environmental or social standards (White et al., 2019). Although eco-labels can have a positive impact on product evaluations, consumers are often skeptical toward them (Delmas & Gergaud, 2021). Studies indicate that eco-labels only have a positive influence on purchase decisions if consumers also attach importance to environmental aspects (Rex & Baumann, 2007). Furthermore, consumers with a positive attitude toward eco-friendly products tend to pay more visual attention to the content of eco-labels, but it was also found that people with little knowledge about environmental problems look more closely at eco-labels so they can better understand the information they provide (Gutierrez et al., 2020). When it comes to demographics, Rahman and Karb (2022) found that younger individuals and women pay more attention to eco-labels than older individuals and men. This could be due, among other things, to the fact that younger generations pay more attention to the environmental impact of the clothing industry, as they are more exposed to it because of their more frequent and diverse internet and social media use (Byrd & Su, 2021). The gender differences could be attributed to different consumption habits (e.g., women tend to buy clothing more frequently than men). Building on the aforementioned findings, we formulate the following hypotheses:

- **H5:** A clothing item with an eco-label is perceived as (a) more sustainable and (b) higher quality than an item without an eco-label.
- **H6:** The influence of an eco-label on the perceived (a) sustainability and (b) quality of a clothing item is more pronounced among highly environmentally conscious consumers.
- **H7:** The more environmentally conscious consumers are, the (a) faster and (b) longer they visually fixate an eco-label.
- **H8:** Younger consumers spend more time visually fixating an eco-label than older consumers.

- **H9:** Female consumers spend more time visually fixating an eco-label than male consumers.

2.3. *Use of Colors*

There are two different ways in which colors are perceived. On the one hand, they have an embodied meaning, which is intrinsic, contextless and evolutionary. (e.g., red is more stimulating than blue because of its longer wavelength). On the other hand, colors also have a referential meaning. For example, green is associated with nature because grass and leaves are green, blue is associated with the sky or water, and yellow with the sun (Lim et al., 2020; Wąsowicz et al., 2015). In marketing, which color is accepted and perceived favorably depends on the product category. Consumers associate different colors with different affective qualities. These should be related to the respective product category (Lim et. al, 2020; Hanss et al., 2012).

Green is often used in marketing to imply sustainability. Consumers associate green with environmental friendliness, recyclable packaging, and natural ingredients. Especially for brands that are not yet well known, green can help to convey appropriate attributes to consumers, as green logos are inevitably more likely to be associated with sustainability than, for example, grey logos. However, people learn from their experiences. Therefore, if consumers are aware that green is used to convince them of an environmentally conscious brand positioning, this can lead to skepticism (Lim et. al, 2020). Nevertheless, green is generally associated with nature, while grey is associated with environmental harmfulness (Ridgway & Myers, 2014). A study by Marozzo et al. (2020) suggests that consumers are willing to pay a higher price for products with a package using “au naturel” colors (e.g., cream, sand) compared to purple, orange, red, or blue, because the former are associated with support, protection, reliability, and seriousness. Since the effect of the color green has already been widely studied in consumer research, we decided to compare a sand-colored website header to a grey header for novelty reasons and to extend recent findings on “au naturel” colors:

- **H10:** A sand-colored header in a fashion online store is perceived as more (a) natural and (b) environmentally friendly than a grey header.
- **H11:** A sand-colored header leads to higher CSR perceptions of a fashion online store than a grey header.

2.4. *Shape of Brand Logo*

While the main purpose of a brand logo is to differentiate itself from competitors, logos also serve a number of other functions. Different affective reactions can be provoked by positive emotions that are triggered in consumers when they perceive a logo, and therefore, brands can draw significant advantages from a well-designed logo (Machado et al., 2015). Along with its color and typeface (Henderson et al., 2004), the shape of a brand logo can have an influence on its perceived attractiveness by consumers (Xu et al., 2020). For example, Meiting and Hua (2021) found that rounded logo shapes are judged as more credible and generally preferred over angular shapes. Rounded logo shapes are associated with femininity (implying warm-heartedness), which ultimately increases consumers' perceptions of a company's intentions and sustainability. In short, rounded logos might be better suited for brands that want to emphasize their CSR efforts than angular ones, which leads to the following hypotheses:

- **H12:** A rounded brand logo in a fashion online store is perceived as more (a) feminine, (b) friendly, and (c) pleasant than an angular logo.
- **H13:** A rounded brand logo leads to higher CSR perceptions of a fashion online store than an angular logo.

3. Method

We recruited 77 Austrian consumers (74.0% female, $M_{AGE} = 27.2$, $SD = 7.6$) for a between-subjects laboratory experiment. In the first stage, after an eye tracking calibration task, participants gaze movements were recorded while they sequentially looked at four mockups of fictitious fashion online stores that were shown for 20 seconds each. For this purpose, a desktop-mounted *Tobii Pro Nano* device (sampling frequency: 60 Hz), which is a video-based pupil and corneal reflection eye tracker with dark and bright pupil illumination modes (Tobii, 2023), was used and data were processed through the software *iMotions*.

For each of the four mockups, each participant was randomly shown one of two variants, in which one aspect at a time was experimentally manipulated. The first mockup showed the product page for an outdoor jacket that was described as produced in China in one condition vs. in Austria in the other condition (to test H1-H4). The second mockup showed the product page for a white t-shirt for which there was either an eco-label below the description or not (to test H5-H9). The third mockup showed the start page of an online store with a header that was either sand-colored or grey (to test H10-H11). The final mockup showed a product listing page with a brand logo in the top left corner that either rounded or angular (to test H12-H13). In Figure 1, we show heatmaps (illustrating how visual attention is spatially distributed across all participants on average, based on fixations) for all four mockups. Because the heatmaps are highly similar in both conditions for all four stimuli, we only included the heatmaps for one condition per stimulus because of space considerations.



Figure 1. Average visual attention heatmaps for all four stimuli

In the second stage, participants completed an online survey that assessed their perceptions of each stimulus, their general environmental consciousness, socio-demographic variables. The dependent variables specific to each of the four stimuli were placed on separate pages (on which the respective mockup was shown again as a reminder) and measured with single items on five-point semantic differential or Likert scales.

4. Results

4.1. Country-of-Origin Declarations

Independent samples *t*-tests indicated that when the jacket was described as “Made in China”, its ecological footprint ($M_{CHI} = 1.65$, $M_{AUT} = 3.62$, $t = 9.37$, $p < .01$) and product quality ($M_{CHI} = 3.25$, $M_{AUT} = 3.78$, $t = 2.57$, $p < .01$) were perceived as significantly worse than in the “Made in Austria” condition, which supports *H1* and *H2*. As anticipated in *H3*, consumers appear to transfer their country-induced product image to the retailer as a whole, given that the overall online store received lower CSR ratings for the Chinese-made jacket compared to when it was produced in Austria ($M_{CHI} = 2.55$, $M_{AUT} = 3.41$, $t = 4.29$, $p < .01$). For testing *H4*, we defined the line with the country-of-origin declaration in the product description as an area of interest and considered the total time (in milliseconds) that participants spent fixating this cue as a moderator of the relationship between the country (China vs. Austria) and the perceived environmental friendliness of the product. The interaction was marginally significant ($p = .08$) and showed that the Chinese country-of-origin cue did not significantly influence product evaluations when participants fixated it for less than 584 milliseconds, but that longer visual attention to this cue led to significantly and increasingly worse ratings of eco-friendliness for the product “Made in China”. This is consistent with our prediction in *H4*.

4.2. Eco-Labels

When a round green eco-label stating “sustainable fashion” was placed below the product description of a white t-shirt, the item was perceived as marginally more sustainable ($M_{LABEL} = 4.05$, $M_{NOLABEL} = 3.74$, $t = 1.55$, $p = .06$), which supports *H5a*, but not as being of higher quality ($M_{LABEL} = 3.71$, $M_{NOLABEL} = 3.82$, $t = .56$, $p = .29$), entailing that *H5b* is not supported. Participants’ environmental consciousness did not interact with the eco-label in predicting product evaluations in terms of sustainability ($b_{interaction} = .05$, $p = .83$) and quality ($b_{interaction} = .04$, $p = .87$), and therefore no evidence for *H6a* and *H6b* can be asserted. The same is true for *H7a* and *H7b*, that is, consumers’ environmental consciousness is not significantly related to how fast (i.e., how early after the stimulus appears; $r = -.08$, $p = .32$) and how long ($r = .07$, $p = .34$) consumers fixate the eco-label, although the observed directionality of the effects is consistent with our expectations. Participants’ age was also not significantly related to their fixation time on the eco-label ($r = .17$, $p = .16$), implying that *H8* is also not supported. It needs to be noted, however, that the age distribution in our sample was skewed towards younger consumers as 81.3% of participants were younger than 30 years. Finally, we also did not find evidence for gender differences in fixation durations (in milliseconds) on the eco-label as postulated in *H9* ($M_{FEMALE} = 2408.27$, $M_{MALE} = 2699.93$, $t = .67$, $p = .26$).

4.3. Use of Colors

As predicted in *H10a* and *H10b*, the sand-colored website header was perceived as more natural ($M_{SAND} = 4.33$, $M_{GREY} = 3.82$, $t = 2.56$, $p < .01$) and environmentally friendly ($M_{SAND} = 3.62$, $M_{GREY} = 2.79$, $t = 3.18$, $p < .01$) than the grey header. Apparently, consumers transfer these color associations to the online store, given that the web shop received marginally higher CSR ratings with the sand-colored header ($M_{SAND} = 3.64$, $M_{GREY} = 3.29$, $t = 1.57$, $p = .06$), which is consistent with *H11*.

4.4. Shape of Brand Logo

Our findings show that a round brand logo in the top left corner of a fashion online store was not perceived significantly differently than a square logo in terms of femininity ($M_{ROUND} = 3.79$, $M_{SQUARE} = 3.58$, $t = 1.00$, $p = .16$), friendliness ($M_{ROUND} = 3.67$, $M_{SQUARE} = 3.45$, $t = 1.26$, $p = .11$), and pleasantness ($M_{ROUND} = 3.87$, $M_{SQUARE} = 3.76$, $t = .46$, $p = .33$). Although the directionality of all three effects is consistent with our expectations, *H12a*, *H12b*, and *H12c* cannot be considered as supported. However, it is worth noting that 28.6% of all participants did not even notice the brand logo (i.e., their gaze did not enter the area of interest a single time). Given that the associations with the logo were not dependent on its shape, there were also no spillover effects on consumers' CSR perceptions of the online store as a whole ($M_{ROUND} = 3.10$, $M_{SQUARE} = 2.89$, $t = 1.04$, $p = .15$), leading to the rejection of *H13*.

5. Discussion

Our findings indicate that online shoppers' sustainability-related evaluations of both a product and the retailer strongly depend on whether it is stated that the item was produced in the domestic country or a foreign country (i.e., China). It is worth noting that the description of the country of origin only took up 2.4 cm² of space – which corresponds to an area of 0.4% of the entire website mockup – and was still detected by 100% of participants. This finding parallels previous studies indicating that country-of-origin cues do in fact get noticed by most consumers even if they are not conspicuously displayed (Halkias et al., 2022). From a managerial perspective, this suggests that it is not necessary to adopt overly obtrusive or exaggerated display formats of country-of-origin cues that might dilute a product's or web page's aesthetics, or override other relevant product attributes. Another of our findings that is consistent with those of Halkias et al. (2022) is that country-of-origin effects only become relevant after a minimum amount of visual processing has taken place. The mere inclusion of country-of-origin information in product communications does not guarantee that it will impact consumers' attitude formation, even if they do notice it. As a consequence, the challenge for firms lies in encouraging consumers to give country-of-origin cues sufficiently long attention.

We also found that including an eco-label on a product page marginally increases perceptions of the product's environmental friendliness but has no impact on quality judgments. Although this may seem counterintuitive at face value but confirms recent evidence demonstrating that eco-labels do not significantly impact or can sometimes even reduce the perceived functional quality of a product (e.g., Pancer et al., 2017). This can possibly be explained by consumers thinking that a company's resources may have been diverted from other product attributes if the primary aim was to provide environmental benefits (Newman et al., 2014). In other words, consumers infer that due to constraints in product development, there must be a trade-off such that products that are superior on one attribute (e.g., sustainability) must be relatively inferior on other attributes (e.g., efficacy) (Chernev & Carpenter, 2001). What might also come into play is that, according to Luchs et al. (2010), consumers fundamentally value sustainability and functionality differently, because they associate "green" products with gentleness-related attributes, but prefer non-ethical products when they value strength-related attributes such as a t-shirt's durability.

Building on Marozzo et al.'s (2020) work in the food segment, we tested whether "au naturel" colors can also signal eco-friendliness in a fashion online store. Our work complements existing knowledge on this color family by demonstrating that web shops are more strongly associated with CSR when using a more natural color in their header. Importantly, we show that the color green is not the only option that brands have to strengthen their ethical positioning.

Finally, we acknowledge that our results do not enable us to offer any managerial insights regarding brand logo shapes, because we did not find any significant differences based on whether a fashion online store had a rounded vs. an angular logo.

6. Limitations and Future Research

As with any laboratory study, threats to external validity of this study must be taken into account and might limit generalizability. Participants were only shown screenshots of individual online shop pages, but could not scroll and browse through the websites, which would allow for a more holistic evaluation (Brunner-Sperdin et al., 2014). Further, this study focuses on fashion retail, which can be categorized as experience products. Due to their complexity, *experience* products are generally evaluated based on affective criteria whereas *search* products, such as groceries, are evaluated along cognitive criteria (Jourdan, 2001).

List of References

- Baldassarre, F., & Campo, R. (2016). Sustainability as a Marketing Tool: To Be or to Appear To Be? *Business Horizons*, 59(4), 421-429.
- Baumgartner, H., & Weijters, B. (2019). Measurement in Marketing. *Foundations and Trends in Marketing*, 12(4), 278-400.
- Boardman, R., & McCormick, H. (2022). Attention and Behaviour on Fashion Retail Websites: An Eye-Tracking Study. *Information Technology & People*, 35(7), 2219-2240.
- Brunner-Sperdin, A., Scholl-Grisseemann, U. S., & Stokburger-Sauer, N. E. (2014). The Relevance of Holistic Website Perception: How Sense-Making and Exploration Cues Guide Consumers' Emotions and Behaviors. *Journal of Business Research*, 67(12), 2515-2522.
- Byrd, K., & Su, J. (2021). Investigating Consumer Behaviour for Environmental, Sustainable and Social Apparel. *International Journal of Clothing Science and Technology*, 33(3), 336-352.
- Cachon, G. P., & Swinney, R. (2011). The Value of Fast Fashion: Quick Response, Enhanced Design, and Strategic Consumer Behavior. *Management Science*, 57(4), 778-795.
- Carter, B. T., & Luke, S. G. (2020). Best Practices in Eye Tracking Research. *International Journal of Psychophysiology*, 155, 49-62.
- Chernev, A., & Carpenter, G. S. (2001). The Role of Market Efficiency Intuitions in Consumer Choice: A Case of Compensatory Inferences. *Journal of Marketing Research*, 38(3), 349-361.
- De Jong, M. D., Harkink, K. M., & Barth, S. (2018). Making Green Stuff? Effects of Corporate Greenwashing on Consumers. *Journal of Business and Technical Communication*, 32(1), 77-112.
- Dekhili, S., Crouch, R., & El Moussawel, O. (2021). The Relevance of Geographic Origin in Sustainability Challenge: The Facets of Country Ecological Image. *Journal of Consumer Marketing*, 38(6), 664-678.
- Delmas, M. A., & Gergaud, O. (2021). Sustainable Practices and Product Quality: Is There Value in Eco-Label Certification? The Case of Wine. *Ecological Economics*, 183, 106953.
- Donato, C., & D'Aniello, A. (2022). Tell Me More and Make Me Feel Proud: The Role of Eco-Labels and Informational Cues on Consumers' Food Perceptions. *British Food Journal*, 124(4), 1365-1382.
- Eurostat (2023). *E-Commerce Statistics for Individuals*. Retrieved April 20, 2023, from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics_for_individuals.
- Gazzola, P., Pavione, E., Pezzetti, R., & Grechi, D. (2020). Trends in the Fashion Industry. The Perception of Sustainability and Circular Economy: A Gender/Generation Quantitative Approach. *Sustainability*, 12(7), 2809.
- Gutierrez, A. M. J., Chiu, A. S. F., & Seva, R. (2020). A Proposed Framework on the Affective Design of Eco-Product Labels. *Sustainability*, 12(8), 3234.
- Halkias, G., Florack, A., Diamantopoulos, A., & Palcu, J. (2022). Eyes Wide Shut? Understanding and Managing Consumers' Visual Processing of Country-of-Origin Cues. *British Journal of Management*, 33(3), 1432-1446.
- Hanss, D., Böhm, G., & Pfister, H.-R. (2012). Active Red Sports Car and Relaxed Purple-Blue Van: Affective Qualities Predict Color Appropriateness for Car Types. *Journal of Consumer Behaviour*, 11(5), 368-380.
- Henderson, P. W., Giese, J. L., & Cote, J. A. (2004). Impression Management Using Typeface Design. *Journal of Marketing*, 68(4), 60-72.

- Huddleston, P. T., Behe, B. K., Driesener, C., & Minahan, S. (2018). Inside-Outside: Using Eye-Tracking to Investigate Search-Choice Processes in the Retail Environment. *Journal of Retailing and Consumer Services*, 43, 85-93.
- Human Rights Watch (2023). *Labor Rights in the Garment Industry*. Retrieved April 20, 2023, from <https://www.hrw.org/topic/womens-rights/labor-rights-garment-industry>.
- Jourdan, P. (2001). Search or Experience Products: An Empirical Investigation of Services, Durable and Non-Durable Goods. In P. M. Tidwell & T. E. Muller (Eds.), *AP – Advances in Consumer Research Vol. 4* (167-174). Provo, UT: Association for Consumer Research.
- Lang, J. Q., & Crown, E. M. (1993). Country-of-Origin Effect in Apparel Choices: A Conjoint Analysis. *Journal of Consumer Studies & Home Economics*, 17(1), 87-98.
- Leonidou, C. N., & Skarmeas, D. (2017). Gray Shades of Green: Causes and Consequences of Green Scepticism. *Journal of Business Ethics*, 144(2), 401-415.
- Lim, D., Baek, T. H., Yoon, S., & Kim, Y. (2020). Colour Effects in Green Advertising. *International Journal of Consumer Studies*, 44(6), 552-562.
- Luchs, M. G., Naylor, R. W., Irwin, J. R., & Raghunathan, R. (2010). The Sustainability Liability: Potential Negative Effects of Ethicality on Product Preference. *Journal of Marketing*, 74(5), 18-31.
- Machado, J. C., De Carvalho, L. V., Torres, A., & Costa, P. (2015). Brand Logo Design: Examining Consumer Response to Naturalness. *Journal of Product & Brand Management*, 24(1), 78-87.
- Marozzo, V., Raimondo, M. A., Miceli, G. N., & Scopelliti, I. (2020). Effects of Au Naturel Packaging Colors on Willingness to Pay for Healthy Food. *Psychology & Marketing*, 37(7), 913-927.
- McKinsey (2016). *Style That's Sustainable: A New Fast-Fashion Formula*. Retrieved April 20, 2023, from <https://www.mckinsey.com/capabilities/sustainability/our-insights/style-thats-sustainable-a-new-fast-fashion-formula>.
- Meiting, L., & Hua, W. (2021). Angular or Rounded? The Effect of the Shape of Green Brand Logos on Consumer Perception. *Journal of Cleaner Production*, 279, 123801.
- Newman, G. E., Gorlin, M., & Dhar, R. (2014). When Going Green Backfires: How Firm Intentions Shape the Evaluation of Socially Beneficial Product Enhancements. *Journal of Consumer Research*, 41(3), 823-839.
- Osburg, V.-S., Strack, M., Conroy, D. M., & Toporowski, W. (2017). Unveiling Ethical Product Features: The Importance of an Elaborated Information Presentation. *Journal of Cleaner Production*, 162, 1582-1591.
- Pancer, E., McShane, L., & Noseworthy, T. J. (2017). Isolated Environmental Cues and Product Efficacy Penalties: The Color Green and Eco-Labels. *Journal of Business Ethics*, 143, 159-177.
- Rahman, O., & Kharb, D. (2022). Product Choice: Does Eco-Labeling Play an Important Role in Apparel Consumption in India? *Fashion Practice*, 14(2), 266-291.
- Rex, E., & Baumann, H. (2007). Beyond Ecolabels: What Green Marketing Can Learn From Conventional Marketing. *Journal of Cleaner Production*, 15(6), 567-576.
- Ridgway, J., & Myers, B. (2014). A Study on Brand Personality: Consumers' Perceptions of Colours Used in Fashion Brand Logos. *International Journal of Fashion Design, Technology and Education*, 7(1), 50-57.
- Shao, J., Li, W., Aneye, C., & Fang, W. (2022). Facilitating Mechanism of Green Products Purchasing with a Premium Price – Moderating by Sustainability-Related Information. *Corporate Social Responsibility and Environmental Management*, 29(3), 686-700.
- Takahashi, R. (2021). Who is Attracted to Purchase Green Products through Information Provision: A Nationwide Social Experiment to Promote Eco-Friendly Coffee. *Environmental Science & Policy*, 124, 593-603.
- Tobii (2023). *Tobii Pro Nano: Small, Lightweight, and Easy-to-Use*. Retrieved April 24, 2023, from <https://www.tobii.com/products/eye-trackers/screen-based/tobii-pro-nano>.
- Todeschini, B. V., Cortimiglia, M. N., Callegaro-de-Menezes, D., & Ghezzi, A. (2017). Innovative and Sustainable Business Models in the Fashion Industry: Entrepreneurial Drivers, Opportunities, and Challenges. *Business Horizons*, 60(6), 759-770.
- UNECE (2018). *Fashion and the SDGs: What Role for the UN?* Retrieved April 20, 2023, from https://unece.org/fileadmin/DAM/RCM/Website/RFSD_2018_Side_event_sustainable_fashion.pdf.
- Wąsowicz, G., Styśko-Kunkowska, M., & Grunert, K. G. (2015). The Meaning of Colours in Nutrition Labelling in the Context of Expert and Consumer Criteria of Evaluating Food Product Healthfulness. *Journal of Health Psychology*, 20(6), 907-920.
- White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT Consumer Behaviors to be More Sustainable: A Literature Review and Guiding Framework. *Journal of Marketing*, 83(3), 22-49.
- Xiao, M., & Myers, P. (2022). Pride and Prejudice and Country-of-Origin Ecological Images: The Influence of COO Ecological Image on Consumer Evaluation of Product Greenness and Green Claim Credibility. *Environmental Communication*, 16(4), 473-489.
- Xu, L., Yu, F., & Ding, X. (2020). Circular-Looking Makes Green-Buying: How Brand Logo Shapes Influence Green Consumption. *Sustainability*, 12(5), 1791.