

Decoding Greenwashing: A Study of Content on E-Commerce Platforms

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In the current Information Age, e-commerce is rapidly evolving due to its convenience and accessibility. However, the content presented on online store websites is not always intended to assist customers in making informed decisions but can instead deceive them into purchasing certain products. As a result, user reviews have become a preferred source of information due to their independent nature. Nevertheless, the impact of user reviews on sustainable decision-making in relation to other content on the e-commerce product page has not yet been explored. This research examines the role of user-generated and other content on e-commerce platforms in detecting and mitigating greenwashing, a deceptive technique used by companies to falsely claim environmental friendliness. It is important to study this area as greenwashing is still widely employed by firms to this day. Qualitative methods namely interviews and user testing with a prototype are used in this study to explore consumer interaction perceptions while making a sustainable decision. Key findings indicate that a clear statement of credible sustainability certifications and visual proofs (e.g. footage of production) significantly enhance consumer trust. Nevertheless, certain user interface elements can be used to utilise greenwashing practices effectively, highlighting the need for better design and regulation. The study proposes a framework for examining user reviews and other information to identify greenwashing, as well as design guidelines for sustainable e-commerce websites.

Additional Key Words and Phrases: Greenwashing, E-commerce, Informed Decision-Making, User Experience

1 INTRODUCTION

Greenwashing has become a topic of discussion in recent years. It refers to deceptive marketing techniques used by companies to mislead their stakeholders by falsely presenting themselves as environmentally friendly [22]. Based on findings by the European Commission and national consumer authorities, in 42% of companies' green online claims, exaggeration, false or deceptive statements were made regarding eco-friendliness [12]. While greenwashing presents an ethical issue of customer deception, it also affects the environment in a long-term perspective. When a company makes a greenwashing claim, it tries to bypass efforts to fight climate change and still attract environmentally cautious people, by exploiting their efforts to shop responsibly [17]. When performed successfully, greenwashing allows businesses to expand unsustainable practices, while enjoying an inclusive customer base. This in turn leads to the accumulation of global warming, a phenomenon detrimental to our health and existence [14]. The focus of this study is on how people with different opinions of sustainability interact with e-commerce websites while deciding on a sustainable product to buy. Potential findings can shed light on how to utilise user reviews and user interfaces to help customers spot greenwashing and recognise reviews affected by deception. Future studies may use the developed framework to extend the findings made in this paper. In

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addition, formulated guidelines for e-commerce web design can be used by sustainable stores to facilitate ethical decision-making.

2 PROBLEM STATEMENT

There have been numerous studies covering greenwashing, which emphasised negative consequences and classified concepts within (e.g. greenwashing techniques and its psychology) [13, 22, 18]. However, none of them studied it in relation with e-commerce, which has been a booming industry for the past decade (53% of EU online shoppers in 2010 went up to 75% in 2022) [20]. To extend existing knowledge about greenwashing, its effects and techniques for e-commerce, this research relies on qualitative data-gathering methods and a literature review.

3 RESEARCH QUESTION

With problem statement in mind, a research question is formulated:

“How can content on e-commerce platforms help consumers detect and avoid greenwashing practices?”

4 RELATED WORK

A study by De Freitas Netto et al. [10], described different deception practices such as “7 sins of greenwashing” that imply particular techniques used by companies to deceive customers [13]. A study by Fernandes et al. investigated how characteristics of online reviews such as source credibility, volume, language and comprehension, and relevance [16] help people make informed decisions. A similar, more recent study by Kutabish et al. extended the research of trends and aspects of user-generated reviews (like trust in credibility and quality) that affect customer decision-making regarding user-generated reviews [21]. Chen et al. investigated a similar topic, with the addition of eye-tracking technology to see to which aspects of the online reviews people pay the most attention (both hedonistic and utilitarian products) [15].

While these studies provided comprehensive research on how user reviews help customers make informed decisions and how firms use greenwashing to deceive stakeholders, there is still a niche for combining these findings and extending the research. Specifically, this research used existing knowledge to design an experiment that shows how user-generated reviews and other product page content can help customers identify greenwashing when shopping for sustainable products. Given the rapid growth of e-commerce and greenwashing practices, it is crucial to increase the risk of exposure of greenwashing, and therefore prevent it, by making it unappealing financially.

5 METHODOLOGY

When it comes to defining the methodology for this study, two main techniques were defined: Interviews and user testing. This approach

was chosen for multiple reasons that are described in the following subsections.

5.1 User-testing

User testing is relevant for this research as it could provide participants with visual cues and interactive experiences in the form of a web-store prototype.

To design a testing environment Figma¹ was used to compile and simulate an online T-shirt store that enables users to make a free decision regarding the purchase. Figma is a user-interface design environment that allows rapid design and simplicity of prototyping. This, combined with interviewing and “thinking aloud” [2] generated a rich sample of data to analyse and reflect on existing web-store practices. A template design created by Hamza Naeem [24] was used, and made interactive within this project as well as adjusted to the needs of the experiment (Figure 1).

This methodology allowed for the generation of rich data samples, that could be analysed qualitatively. It covered a wide range of factors influencing customer decision-making and possibilities to identify how greenwashing practices affect the decision-making of different customer types.

5.2 Interview

Qualitative research like interviews helps get rich information that includes various data such as visual cues, opinions, and verbal and non-verbal communication [9]. It also provides freedom of communication to experiment participants, so a wide variety of data is available to investigate the complex phenomenon of greenwashing in reviews (e.g. surveys do not allow for such freedom) [9]. Moreover, this research aims to extend existing research about people’s perception of user reviews using interviewing, as suggested by Fernandes et al. [16].

The interview was designed to be semi-structured to allow participants to express their observations freely and generate knowledge beyond one targeted with strictly defined questions (like it is done in structured interviews) [6]. The questions of the interviews (Appendix B) were focused on multiple aspects and had an exploratory nature. Participants’ social responsibility and opinions on climate change and ecology were considered important, as some people simply do not mind greenwashing, or are not concerned by it [19]. It was decided to include participants regardless of their ecological stance to have a realistic sample. Participants’ opinions of mock-up product pages and their explanations for the decisions made during user testing were considered. Finally, moderating variables were taken into account such as age, gender and education level.

The interviews took place after the user testing sessions, as it was important to avoid participants’ exposure to the topic of this research before letting them make an independent purchasing decision.

¹<https://www.figma.com/>

5.3 Prototype Design

5.3.1 Controlled variables. To keep customer decisions focused on the scope of this research, several elements of the web page design were intentionally made less prominent for the user. Designs of the T-shirts were made muted and similar to each other, to reduce customers’ subjective justification regarding fashion preferences. To generate T-shirt designs AI was used, in particular Copilot¹. It was decided to ask 12 participants to choose a more sustainable option as a task.

Participants were provided with the following instructions: “Imagine you visit a website to buy a shirt for your friend who cares a lot about sustainability. The task is to navigate through all six T-shirt options presented by the prototype website and make an informed decision on which one to purchase while thinking aloud.”

This way the data sample generated enough relevant data, and still didn’t reveal the greenwashing aspect before decision-making. To research the environmental responsibility of participants, they were asked questions about their opinion on the importance of sustainability in products and environmental issues during the interview.

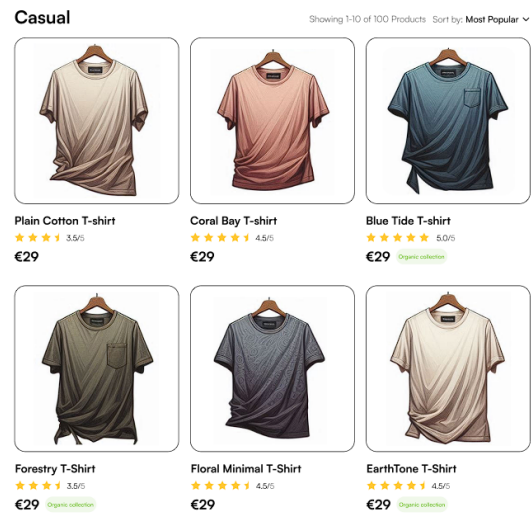


Fig. 1. Web-site prototype sample

Another variable that was controlled is the price of the product. It was achieved by making prices uniform. Price and design variables were decided to be controlled to make customers focus on the quality and production aspects of a product without revealing the purpose of the research avoiding bias.

5.3.2 Intervening variables. To gain insights into how user-generated reviews influence participants’ decision-making, the four-factor model of e-commerce purchasing decision-making developed by Fernandes et al. [16] was used. These factors are *credibility*, *volume*, *language comprehension* and *relevance*. They were used as variables

¹<https://copilot.microsoft.com/>

for designing user reviews within the prototype.

Credibility is an important factor of user-reviews [16], as it relates to trustworthiness and expertise of the review author [16, 21]. A review is more credible when the reviewer is a product user [8]. In the prototype, this factor was expressed in the form of simple certification of the review like it is done by Amazon with their verified buyer label [23]. Therefore the variable was boolean, indicating the presence of a verification mark. This was used in synergy with reviews reflecting greenwashing to see whether participants react differently to them based on that check mark.

According to Fernandes et al. [16], *volume* relates to the rating and amount of reviews. For the sake of this study, it was deemed sufficient to leave only a sample of 6 reviews for each product available for reading, each having a rating attached. This was done so that the users could go through reviews without getting lost as informed decision-making could suffer. This is because choosing from many products/reviews that have many different variables increases choice overload [4]. To get a bigger picture, participants referred to the number of total reviews left and overall rating to access volume criteria.

Language comprehension means content quality of the reviews [16]. In this experiment, it mediated the length of the review and the quality of language (Appendix C). It is generally considered by users, that the review is more useful if the language of reviews is simple and appealing as well as unambiguous [11, 5].

Relevance refers to the type of the review (negative or positive) as well as its date [16, 21]. In the prototype, it was reflected by the different dates of the reviews as well as ratings (Appendix C).

5.3.3 Use of greenwashing practices. While above mentioned attributes described the format of reviews that were presented, the study of De Freitas Netto et al. [10] was used to define the contents of the reviews and products' descriptions. Such contents included the deceptive practices employed by fictional firms. The practices were based on the "7 sins of greenwashing" described previously in section 4.

An example of such used in the design of this prototype is the "Hidden trade-off sin". It is a deceptive practice employed by firms to claim that their product is sustainable, backing it up by a narrow set of attributes without attention to other important environmental issues [10]. An example of a company using such a technique in the prototype was claims of recycled swing tags used in clothing. While this is an example of environmentally-friendly contribution it is only a fraction of the needed effort to be sustainable.

"Lack of proof sin" is when firms make claims or state the presence of certain certifications [10], while not providing any fine text or URLs for the sources [3]. In the prototype, some products had claims of certifications that were either made up or lacked the opportunity to learn more about.

"Vagueness sin" is used by firms to make broad statements that imply eco-friendliness without describing the effort [10]. For example, "Not-toxic", "Eco-friendly", "Green", "Conscious", etc. are all examples of vague greenwashing claims [3]. Such buzzwords were also used in product descriptions of the prototype.

"False labels sin" implies the use of labels that do not have any weight to them, but sound legitimate. For example, some of the prototype products had an "Organic collection" label that indicated that the product came from a clothing collection that was developed in collaboration of an internal sustainability manager. In reality, no further information was provided.

The aspect of "Irrelevance sin" means that products have descriptions of being free from something irrelevant to the product. For example, some T-shirts had "CFC free" in their description, while CFC (chlorofluorocarbons) are banned by the Montreal Protocol [10][1].

The four previously mentioned factors for purchase decision-making were counterbalanced by greenwashing sins between reviews and products. To avoid bias, the reviews had similar patterns for each product, having contents that exposed greenwashing practices, deceived by greenwashing as well as unrelated to greenwashing (Appendix C).

5.4 Qualitative data analysis

The data gathered through thinking aloud and interviews (transcripts of audio recordings) was analysed using qualitative data analysis software. It was decided to use the transcript coding method combined with general qualitative analysis. Coding was used for thematic analysis to highlight themes important to users. Inductive coding methodology was used, as described by Yanto Chandra et al. [7]. This is due to the fact that inductive coding is a better choice for exploratory studies, as it uses a priori method of code definition, allowing for organic development of a dataset [7]. Nevertheless, inductive coding was combined with deductive coding of variables defined previously to set the basis of the analysis. To analyse gathered transcripts Atlas.ti² software was used. Atlas.ti is a qualitative data analysis software that helps organise codes among multiple transcripts and export them for further qualitative and quantitative analysis.

6 RESULTS

As the result of user testing combined with semi-structured interviews total of 12 participants, a quantitative representation of code frequencies was developed. In addition to the quantitative model, general qualitative insights were derived. Participants were recruited using word of mouth as well as promotion during other research events made by the author. An ethical approval was received from the Ethics Committee of the University of Twente EEMCS Faculty³. For anonymity purposes, participants are referred to using assigned IDs (P1 to P12). 10 out of 12 participants were studying

²<https://atlasti.com/>

³<https://www.utwente.nl/en/eemcs/research/ethics/>

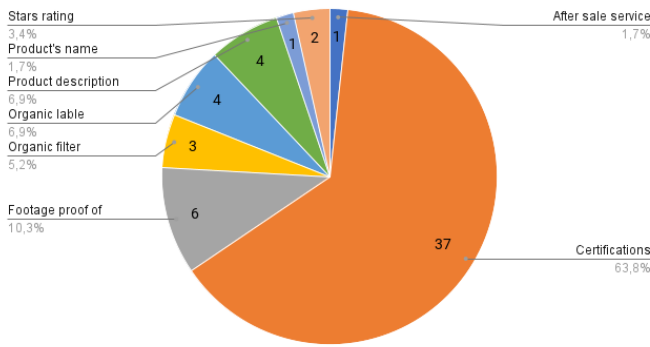


Fig. 2. User interface relevance to sustainable decision making

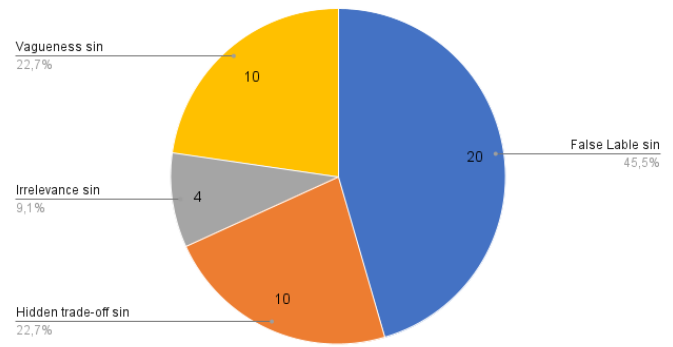


Fig. 3. Greenwashing sins relevance

at the University of Twente at the moment of the interview, and 2 participants were studying at the Saxion University of Applied Sciences. The mean age of participants was 21.17, and the gender ratio was estimated as 84% male and 16% female.

6.1 User Interface

Figure 2 illustrates the proportion of independent mentionings of particular UI elements that participants made. By independent mentioning a quotation is implied. A single participant can make multiple independent mentionings as long as they are made in different contexts or separated logically.

Certification is dominating the UI element requirements for sustainable decision-making. People stressed certification, under multiple justifications, such as: “...floral minimal T-shirt had most reviews and also it had links. Meaning that they are transparent.” [P1], “If they have some certification then it would make it more credible.” [P9]. One interesting insight included a suggestion made by a participant for certification companies to have “...a list of companies that are certified by them. So I could go there and say that it was checked...” [P3].

Another frequent suggestion was to add footage of sustainable production to a website, as it improves trust in green efforts due to transparency. Nevertheless, one participant stated the opposite “You don’t know the scale of the video, how efficient it is. So it doesn’t give you a lot of information...” [P3].

Other valuable insights reflected participants’ attention to short descriptions and names of the products, as well as filter options for sustainable products. Finally, there were 4 mentionings made by participants referring to a green bubble, stating “Organic collection” made them: “[...] compelled to trust them and to buy their products. Because it stood out from the normal shirts.” [P6]. However, this organic label was used intentionally to deceive people and is a prime example of a false label. In the description of the organic collection, it said: “This T-shirt is eco-safe and developed by an organic manager within our company.” The topic of false labels will be discussed in detail in the following subsection.

6.2 Greenwashing sins

Figure 3 describes the proportion of greenwashing sins (defined in section 5.3.3) that were mentioned in any form by the participants. This proportion includes cases of both avoiding the practice, recognising the deceiving motive or being deceived by it. In the case of the false label sin, 85% of its mentionings were of those who got deceived by it. Examples are the above-mentioned organic collection: “I feel like organic collection green tag is a super useful small detail if you are specifically looking for organic collection or similar stuff...” [P3]. However, 15% expressed scepticism about the authenticity of these claims, stressing the need for more concrete evidence or information on sustainability practices before deciding to buy.

The other 3 greenwashing sins were exposed in the majority of quotations related to them. When it comes to “Hidden trade-off sin”, 90% of participants’ quotations regarding this deception pointed out such practices instead of being deceived by them. They highlighted that such practices can distract from the real environmental impact of the company’s operations. A similar scenario was observed in the recognition of “Vagueness sin” practices, as 70% of all vagueness-related quotations pointed out deception in that matter. Finally, irrelevance was exposed in 75% of all of its mentionings.

6.3 Review properties

When it comes to discussing review properties (intervening variables), volume and credibility were the two most mentioned (see Figure 4). Based on the participants’ opinions, sustainable decision-making relies on the number of reviews and transparency. Higher ratings were preferred, considering the number of reviews. The credibility aspect of reviews had more depth to it as it consisted of opinions that go for and against credible comments. Thus 42.9% of all credibility mentionings had negative or indifferent characters, doubting the trustworthiness of the reviews.

Verified buyer label did not give a feeling of trustworthiness to 4 users: “He is a verified buyer, but he doesn’t really explain why it’s not sustainable here.” [P6].

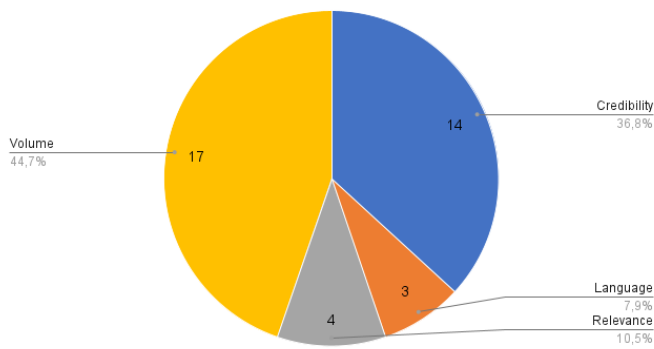


Fig. 4. Review properties relevance

In contrast, 35.7% of credibility quotations were positive showing a preference for verified buyer reviews over unverified: “...I’m gonna go with Alex’s review here because he’s a verified buyer.” [P6]. Finally, 21.4% of credibility opinions were neutral describing general observations.

6.4 Additional findings

There was a critique of some companies for claiming environmental friendliness while increasing profits through tactics like using recycled materials that result in a more frequent need for purchases due to poor quality. Participants mentioned examples like easily breakable cables and the removal of charging blocks as gestures towards sustainability that seem more for profit than actually protecting the environment. Generally, there was scepticism towards consumerism and preference towards long-lasting products to minimize waste expressed by 4 out of 12 participants.

Several participants stated that if a product has a high price, it might suggest that it is more sustainable because producing it likely requires more investment in eco-friendly practices. Buying from reputable brands can also mean better conditions for workers and more environmentally-friendly production processes. Higher-priced brands often have better reputations, which can indicate stronger commitments to sustainability.

7 DISCUSSION

The primary goal of this research was to investigate how user-generated content such as reviews helps customers make informed purchase decisions regarding sustainable products. This chapter explores findings relevant to the initial goals as well as a much broader and diverse set of insights relevant to the topic, thereby answering the research question.

7.1 Interpretation of the findings

The qualitative data analysis combined with quantitative interpretation revealed several key insights. Firstly, there is a predominance of the certification as a user interface requirement. It indicates its perceived credibility and transparency. Participants’ mentionings of certifications suggest a strong desire for verifiable sustainability

claims. The suggestion for certification bodies to provide a list of certified companies is noteworthy, as it reflects a demand for greater accountability and transparency in sustainability. In addition, it may imply that a reputable third party’s opinion helps consumers make sustainable, informed decisions.

The fact that several participants expressed the need for sustainable production footage on websites highlights a nuanced understanding of transparency among them. It might suggest that in addition to third-party opinions, participants also prefer to see the sustainable practices directly to benefit their informed decision-making.

The attention given to product descriptions, names, and sustainable filters among participants indicates a demand for information sources to help quick decision-making. The mentionings of the “Organic collection” green tag shows the efficiency of visual cues in influencing consumer’s trust and purchasing behaviours regarding sustainability. While the “Organic collection” label was used to test a deceptive technique on users, it has shown that it improves trust and is an eye-catching user interface element overall.

The high percentage of successful deception by false label claims, such as the “Organic collection” label is alarming. It underscores the effectiveness of greenwashing tactics in changing customer’s perceptions and the need for better verification processes. The presence of this label makes participants more likely to consider purchasing those shirts, with 3 participants stating that they wouldn’t have even looked at T-shirts without the “Organic collection” tag, if not for the instructions of the experiment. This finding is concerning as it suggests that many consumers are unable to discern genuinely sustainable products from those falsely labelled. In contrast, the exposure to other greenwashing practices dealt no deception in the majority of cases, indicating a growing awareness and scepticism towards such practices as hidden trade-offs, vagueness and irrelevance described in section 5.3.3.

The insights into review properties indicate that review volume and credibility are critical during sustainable decision-making. The preference for higher-rated products and large amounts of reviews indicates that social proof significantly impacts consumer behaviour. The mixed opinion on the credibility of reviews, particularly the verified buyer label, suggests that while such labels can enhance trust, they are not “foolproof”.

The frequently expressed preference towards more durable products may indicate that sustainable companies can benefit from focusing on product longevity as a key component of their sustainability strategies.

The perception that higher-priced products and luxury brands may be more sustainable suggests that price can show a subconscious signal of quality and sustainability. However, this requires careful examination, as in practice there have been multiple cases of high-priced products being unsustainable [12].

7.2 Design guidelines

This section is used to discuss the implication of the findings regarding sustainable e-commerce design that can help reduce greenwashing. The implications described can also be utilised by companies using e-commerce to sell their products sustainably and appeal to a larger audience.

A great demand for certifications attached to green claims implies that e-commerce websites can benefit from listing all the product's certifications in an accessible manner. In particular, the use of tag bubbles next to the product name worked the best way during the experiment to catch the customer's attention and build trust. Therefore, tags can be utilised to list relevant certificates. This way, sustainability filters can be utilised via tags, as such a feature was also demanded among participants.

While many see a display of sustainability footage on websites as a trust-building technique, one of the participants [P3] mentioned that such practices do not have informative value, pointing to a need for more evidence to be provided. This implies that the user interface of e-commerce websites should ensure that footage is used in combination with other evidence-based methodologies, such as certificates and proven statistics.

Verified buyer, although being seen as preferred over unverified, is still not recognised as a reliable source of information regarding sustainability on its own. The visible scepticism towards vague verified buyer reviews shows the need for additional mechanisms to ensure review authenticity and reliability, such as minimum word count.

Emphasizing the durability and long-term value of products can attract both environmentally cautious people as well as those who value the quality of the product. Therefore, it can be ethically used in product descriptions to help customers' decision-making. Additionally, e-commerce websites can suggest reviewers point out durability on a scale, during the review. The perception of more expensive products being sustainable can be used to the advantage of companies to justify premium prices with sustainable production via transparent communication. This way companies can benefit from their effort and improve trust.

7.3 Limitations and future directions

While this study has a mostly exploratory nature, it did provide a graphical representation of the mentionings ratio. Such representation should be taken with a grain of salt as there might be inaccuracy in the statistical interpretation of qualitative data in quantitative form.

Greenwashing is an ongoing inquiry that might utilise techniques unforeseen by this research (beyond ones described in section 5.3.3), therefore future studies might benefit from both exploratory and quantitative methods. While exploratory studies can explore other facets of greenwashing concerning e-commerce, quantitative studies can fill the gap in statistical significance.

While this study had a decent amount of participants, they were all between the ages of 20 and 23. However, according to Eurostat [20], the most active e-commerce users fall in the age group of 25-34 years old. While the difference between these two groups is only around 5%, future studies can address it to study a more diverse demographic. The same logic applies to educational backgrounds and gender ratio.

8 CONCLUSION

This paper has explored a wide variety of different factors such as website contents and reviews that affect consumer's ability to detect and avoid greenwashing practices.

According to the findings made in this study, it is critically important to include valid certifications in an accessible manner to help customers avoid being deceived by greenwashing. For the best effect, such proofs of sustainability can be combined with visual evidence such as production footage on the product page. This implies the complex nature of customer trust, as there is a demand for reputable opinions as well as direct observation. User interface elements such as tag bubbles help trust and decision-making. Nevertheless, it presented itself as an effective tool for greenwashing as the majority of participants have been deceived by false labels presented using it, which implies the need for better regulation of such interface elements.

However, this study is limited to a narrow age sample as well as a small number of participants from outside of the University of Twente, and therefore the finding's generalisability is limited. Despite these limitations, this paper makes a valuable contribution in the form of practical e-commerce design guidelines that aim to help customers' independent decision-making. In addition, the findings aim to contribute to academia by setting the ground for future quantitative research on the complex phenomenon of greenwashing in e-commerce with the potential.

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A USE OF AI

During the preparation of this work, the author used the following tools for the following reasons.

- Grammarly Free Plan
 - Used for the overall spelling and grammar check of the paper.
- Copilot
 - Used to generate product images for the prototype. Prompt used: "Generate pictures of t-shirts, all muted/pastel colours, no decals or prints."
- ChatGPT
 - Used to proofread the paper and get feedback in the form of comments to identify sections of the paper that can be improved grammatically or in terms of academic language. Prompt used: "Proofread this paper, and give comments on grammar and language" The response generated by ChatGPT was not used in the text directly and served only for advisory purposes to improve writing and academic language. No sensitive information was used in the prompts. No AI was used for generating the context, findings or any other sections of this paper (excluding grammar and language corrections supervised by the author).
- Google meets / Google recorder transcription tool
 - Used to create draft transcripts of the interviews and user testing that were later proofread by the author and adjusted according to the audio.
- Atlas.ti
 - While Atlas.ti allows for the generation of memos based on the data coding, the author did not use it. Both coding and analysis were made without the assistance of any AI.

After using those AI tools, the author reviewed the results and edited his paper as needed and takes full responsibility for the content of the work.

B INTERVIEW QUESTIONS

Demographic questions

- What is your age?
- What is your gender?
- Can you tell me a little bit about your educational background and occupation?

E-commerce experiences

- How often do you shop online?
- What factors influence your decision to shop online (e.g., convenience, price, variety)?
- Can you tell me a little bit about your educational background and occupation?

Purchasing decision justification

- Why did you choose the product in the end?
- What particular website UI elements do you pay attention to when making informed decision?

Environmental responsibility

- How important is environmental responsibility to you when making purchasing decisions?
- Are there specific environmental issues (e.g., climate change, pollution, resource depletion) that you are particularly concerned about?
- Have you ever chosen a product or brand based on its environmental practices? If so, can you provide an example? Did you do it this time?
- Have you encountered any e-commerce platforms or brands that promote their environmental initiatives? How did that influence your perception of those brands?

Greenwashing

- Are you familiar with the term "greenwashing"? If so, how would you define it?
- Have you ever come across products or companies that you suspect of greenwashing? What made you skeptical?
- What cues or claims do you look for to identify genuine environmental efforts versus greenwashing?

Consumer perception

- How do you evaluate the credibility of environmental claims made by brands or products?
- What role does transparency play in your perception of a brand's environmental practices?
- Do you believe that companies should be held accountable for their environmental claims? Why or why not?

Closing question

- Is there anything else that I didn't ask you about and you want to add?

C FIGMA DESIGNS

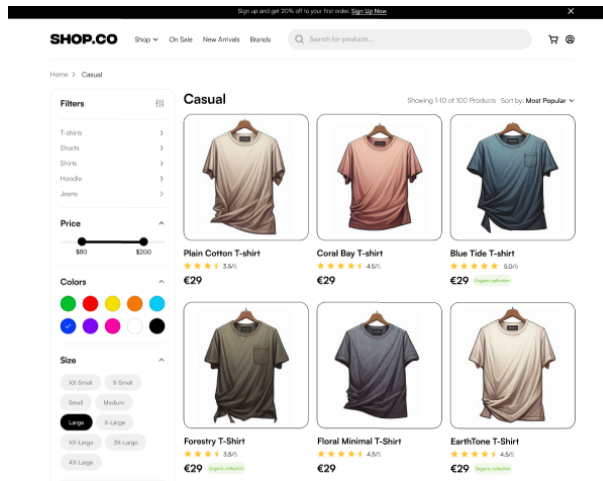


Fig. 5. E-commerce catalogue page

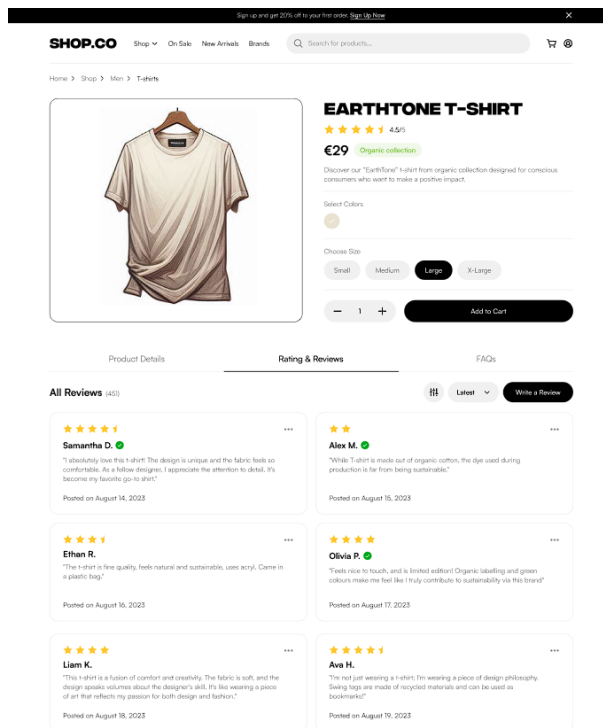


Fig. 6. Product page of the website prototype

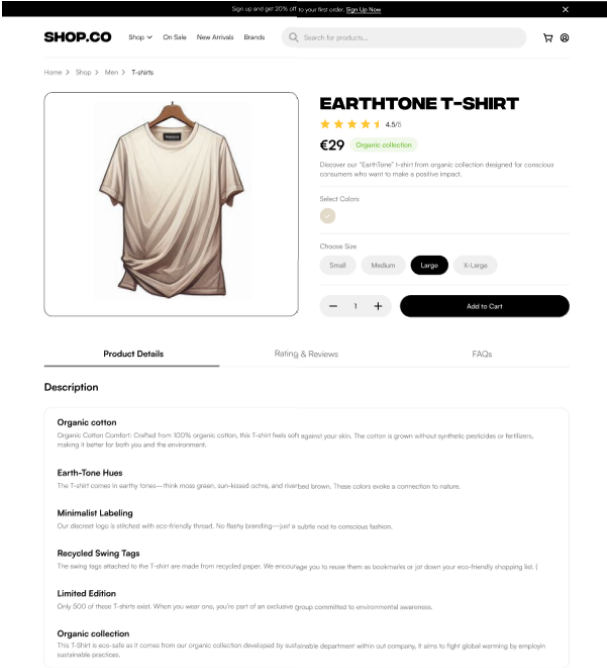


Fig. 7. Product description page of the website prototype