
GREENWASHING AND EDUCATION - WHAT ROLE DOES CONSUMER EDUCATION HAVE IN REDUCING SUSCEPTIBILITY TO GREENWASHING

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Abstract.

The increasing use of greenwashing creates significant challenges towards sustainability. This narrative literature review critically examines greenwashing across three major themes found – food, fashion, and literacy. It explores the effects of consumer education, awareness, and behaviour, on the effectiveness of greenwashing, and highlights the gap between institutional practice and sustainability. Community education is emphasised as a tool for consumers to identify false green claims and empower them to make informed decisions. This review also identifies the structural, cultural, and demographic barriers that prevent long term behavioural change and further perpetuate a green gap in communities. To combat the gap between consumer knowledge and sustainable practices, the review supports the integration of greenwashing literacy into educational systems, the launching of public awareness campaigns and transparent collaborations between institutions, non-government organisations (NGO) and businesses. This will create strategies that foster transparency and accountability, garnering consumer trust that will transition towards informed decision making.

1. Introduction.

1.1 Purpose and rationale.

Increases in sustainability efforts by many across the globe seek to address the degradation of the environment. However, whether these efforts by many organisations are genuine has been called into question. Businesses have a responsibility to operate companies in a sustainable and socially responsible way that meets the needs of the current population but does not compromise the needs of the future generations (de Freitas Netto et al., 2020). When businesses fall short on sustainability claims either intentionally or unintentionally, it is known as greenwashing. Greenwashing is the act of making false and deceptive claims about environmental and social benefits (de Freitas Netto et al., 2020).

Greenwashing poses numerous challenges and dangers for both the environment and society. Recent statistics revealed one in four environmental, social and governance (ESG) risks were tied to greenwashing in 2023, an increase from 20% to 25% since 2022 (Forest Stewardship Council, 2024). Misrepresented sustainability claims erode consumer trust, promote green scepticism, and distort the policies designed to address environmental challenges (Jessen, 2024). Without adequate consumer education, individuals are not equipped to distinguish between authentic or greenwashed claims which can lead to consumers inadvertently supporting unsustainable practices and products. Empowering consumers with the knowledge on how to identify greenwashing tactics is critical in encouraging informed decision making.

Food systems are an easily greenwashed commodity because food is a basic human right and a necessity without which we cannot live. Food production requires a vast amount of land, water, energy, and fertiliser, all of these create environmental costs (Ritchie, 2020). Food waste accounts

for approximately 8-10% of total global greenhouse gas emissions, four times than what the aviation industry puts out (Mortillaro, 2023). The excessive amounts of food produced cause an overproduction leading to an overconsumption when food is cheap and easily available, causing unnecessary waste. This is compounded by vague sustainability claims from food giants, products that are 'organic,' 'made with real ingredients,' 'compostable' or 'recyclable' all claim to be green and eco friendly but often lack transparency and verifiable evidence.

On a global level, the fashion industry is the second largest contributor to environmental damages. It is a \$2.4 trillion industry that produces 20% of the world's wastewater and contributes 9% of the annual microplastics leaked into the world's ocean (Alizadeh et al., 2024). Australia is the second largest textile consumer annually with an average of 27kg per person per year used. The biggest contributor to this is the fast fashion industry with its fast and linear approach (Adamkiewicz et al. 2022). The fashion industry has only recently started to address issues of greenwashing and unsustainability, the reason for such a late response to such a huge environmental issue is because of the human rights violations that already exist within the industry (Adamkiewicz et al. 2022). Educating consumers on making informed decisions that align with a circular economy and move away from fast fashion is vital to sustainability and environmental prosperity (Papamichael et al. 2022).

The purpose of this narrative literature review is to explore what has been found to be effective when trying to educate the public regarding greenwashing, in an effort to improve consumer choices. Three main themes were identified in the literature regarding community education and greenwashing, those being food, fashion, and literacy. This study attempts to bridge the gap between consumer knowledge and actionable sustainability practices.

2. Methodology.

A narrative literature review was conducted to explore the research question 'What role does community education have in reducing susceptibility to greenwashing.' This approach was chosen as it synthesizes and critically explores a large variety of existing research to highlight emerging patterns and themes (Sukhera, 2022). This is notably important when pertaining to emerging information on topics that are rapidly evolving in short amounts of time, in this instance greenwashing and consumer education when in context with sustainability.

The SPIDER framework was adopted to generate the search strategy. This framework focused on defining the **sample** group, **phenomenon of interest**, the **design**, an **evaluation** of the study and the **research type**. A preliminary search of the literature was conducted to identify key search terms. Key terms included terms relating to greenwashing and community education. For greenwashing, the following key words were used; "greenwashing," "green nudging", "eco-friendly label," "green advert*" OR "greencrowding" OR "greenlighting" OR "green label" OR "green rinsing" OR "green advertis*" OR "green market*" OR "green claim." For community education, terms included "public education" OR

"public knowledge" OR "communit* education" OR "community knowledge" OR public OR communit* OR educat* OR knowledge OR "environmental educat*" OR "green educat*".

Boolean operators were used within the search string: OR connected keywords and synonyms that were found to expand the search string whilst AND was used to combine the two different concepts of *greenwashing* and *education*. NOT was used to create limits within the search string and where allowed, within databases that had the exclusion for geographical locations that did not fit within the search criteria.

The review utilised multiple academic databases that were chosen for their coverage on a wide range of topics related to, environmental and economic studies, psychology, and consumer behaviour. These included GreenFILE, APA PsychInfo, ProQuest, Informit, Scopus, Web of Science, Wiley Online and Science Direct. Additionally, due to time constraints, two grey literature database, BASE (Bielfeld Academic Search Engine) and Trove were incorporated into the search to supplement the results. The inclusion criteria focused on peer reviewed articles published between 2019 and 2024. The articles were to be in English, and to originate from countries with similar socio-economic contexts to Australia such as Canada, United States, Europe, and New Zealand. They were a mix of qualitative and quantitative articles although many of them were qualitative. Where possible the exclusion criteria were applied to omit countries outside of specific socioeconomic contexts. Data selection was performed in two steps initially a title and abstract screening was performed on the 333 journal articles yielded from the initial search. This was followed by a full text screening of fifty-seven articles. The final result was ten journal articles that met the search criteria related to greenwashing and community education.

3. Literature review.

3.1 Greenwashing in the food industry.

Greenwashing in the food industry is a complex issue that reflects the interactions between institutional practice and consumer scepticism. The following three articles examined consumer education and awareness of greenwashing tactics within the food industry. Within an institutional setting, food consumption is shaped by environmental behaviours that can act as both enabling and obstructing sustainability. Cavazos et al. (2023) conducted a three phase; mixed methods approach at an unnamed southwestern university with a student population of 13,176. The three phases began with a plate waste audit that was led over 15 non-consecutive days on both staff and students within a buffet style dining hall. A survey was administered to 272 patrons over four non consecutive days. Participants were a mix of new and accultured individuals to the university. The survey was implemented to understand participants food waste behaviours, as well as their willingness to compost and their education around environmental impacts caused by institutional greenwashing. The last phase was a field experiment on 4,082 patrons over ten non consecutive days which tested the impacts of compost bin placement on composting behaviour. Cavazos et al. (2023) observed that

although institutional settings may promote green behaviour by publicising composting initiatives, all you can eat settings encourages excessive food consumption and waste. Cavazos et al. (2023) provide insight into the effects of edible food waste through institutional socialisation, where consumers experience Treadmill-of-Production (ToP) and Treadmill of Consumption (ToC) cycles that is perpetuated by separating the individual from their natural environment. The separation from the natural environment is perpetuated by consumers within an institution being encouraged to partake in excessive behaviours such as overconsumption. This aligns with the definitions of ToP and ToC. ToP refers to the increased production of something that is fuelled by capitalism and extends separation from nature by framing nature as a product item to be consumed rather than something to be cared for and sustained. ToC is the social and cultural pressures that encourage individuals to consume excessively, this consumption is fuelled by marketing and cultural normality that promotes consumption to equal happiness or wealth. ToC disconnects individuals from nature by promoting excessive consumption with an illusion of eco consciousness by marketing them as sustainable. Cavazos et al. (2023) found that the lack of consumer education relating to environmental consequences of overproduction and consumption created a green gap and perpetuated the disconnect for environmental concerns. Cavazos et al. (2023) noted that because the individual autonomy is removed, that this type of greenwashing is unable to be influenced by the individual as it is a learnt behaviour within an institution. However, Cavazos et al. (2023) did find that environmental nudges, where institutional placement of composting bins and educational information can influence behaviour positively.

Similarly, Jakubczak and Gotowska (2020) emphasise the impact of greenwashing on the organic food sector, and how this continues consumer confusion and distrust. There were 375 participants in this study aged between 18-35, the participants were from Turkey and Poland. It was observed by Jakubczak and Gotowska (2020) from their empirical data that misleading green coloured labels on food packaging contribute to the greenwashing trend by confusing consumers in being able to discern between genuine sustainable food products and those that are falsely labelled. It was noted that the lack of clarity forces consumers to rely on institutional certifications which are susceptible to greenwashing tactics due to inconsistent standards and their inability to be regulated. The findings from Jakubczak and Gotowska (2020) reveal that institutions shape consumer behaviour and can influence the marketing environment. It was found that nearly 10% of the participants within the study were deceived by the colour green on packaging. Jakubczak and Gotowska (2020) noted that the people deceived were those that self-reported elevated levels of green knowledge. This study found that community education guides consumer choice relating to environmental protection. Jakubczak and Gotowska (2020) also linked 'green consumerism', where consumer behaviour is influenced by scepticism that arose from previous deceptive practices by food companies, such as the overuse of the colour green on packaging. This study links the effectiveness of educating consumers on how critical thinking can help distinguish between genuine and false and deceptive marketing campaigns.

Contrastingly, de Sio et al (2022) used a cross-sectional design with 410 Italian adult participants to point out how psychological theories of reasoned actions and planned behaviour impact intentional purchases of green products. The participants were within an age range of 18-35, with over 60% of them being female. Their study demonstrated how institutional transparency can build consumer trust and ease scepticism. De Sio et al. (2022) used a mediation model to demonstrate how trust in green claims can enhance purchasing intentions towards more sustainable products, even from those that were sceptical to begin with. It was noted that trust was linked to institutional credibility of environmental efforts and the consumers environmental knowledge. The results from de Sio et al. (2022) noted that when consumers have perceived environmental knowledge (PEK), that this significantly influences consumer purchasing behaviour. De Sio et al. (2022) observed that PEK is an awareness that is built from a form of community education that further encourages and supports a collective responsibility for environmental sustainability and protection. The study further highlighted how community education that assists in identifying and understanding green certification and deceptive practices can guide consumers towards more sustainable practices.

Significant gaps remain within the literature that require further exploration. Cavazos et al. (2023) claim that individual greenwashing is a new phenomenon that is created by institutions. They note that the primary responsibility for fostering sustainable behaviours lay within institutional bodies, while Jakubczak and Gotowska (2020) highlight the importance of empowering individuals through education and consumer awareness. The contrast of these two statements brings light to the divergence between institutional accountability and individual agency. De Sio et al (2022) acknowledges that rebuilding green trust is essential to continual sustainable behaviours. They also note that trust is fragile and can be easily damaged by even minor cases of greenwashing. Both articles noted that community education with a focus of equipping individuals with knowledge that simplifies complex sustainability concepts would be beneficial for individuals to make future green choices. Another gap was found in the exploration of cross cultural and demographic factors. The articles reviewed primarily focus on narrow and specific groups such as university students, young European people, and Italian respondents. The limited scope raises some concerns about the generalisation of the findings. The reliance on self-reported data also introduces some biases. It was noted that participants with existing interests in environmental concerns may be more likely to engage with studies. This could situate the findings towards a more informed demographic which limits the insights into broader community susceptibility to greenwashing. Snowball sampling is another compounded issue that favours similar subgroups, further inhibiting diverse results. The gaps within the articles underscore the methodological limitations that are critical in capturing the role of consumer education. Educational outreach beyond the narrow groups and subgroups can create a more inclusive and effective approach in community education that can combat greenwashing.

3.2 Greenwashing in the fashion industry.

Consumer scepticism influences the adoption of sustainable consumption within the fashion industry aiding in greenwashing behaviours. Labrin Mesia (2024) conducted a qualitative research study with twelve participants aged between 20-39 years. The participants were all studying in Sweden but were selected due to their diverse nationalities. The approach by Labrin Mesia (2024) allowed participants to detail their perspective on sustainable fashion through semi structured interviews that included open ended questions and discussions based on sustainability. Labrin Mesia (2024) found that consumers view sustainability as a trend that fashion brands have adopted which has fuelled their scepticism of sustainability methods portrayed by fashion brand companies. Labrin Mesia (2024) found that participants viewed fashion brands with distrust due to inconsistent messaging, quick adoption of sustainability and lack of transparency. The twelve participants of the qualitative study expressed frustrations over campaigns that offered vague advertising of sustainable practices without authentic certification for sourcing and manufacturing materials. Labrin Mesia (2024) also found that participants lacked trust with fashion brands who claimed to promote recycling practices through cash back schemes. The study found that erosion of trust can deter loyalty to brands even when efforts towards sustainable practices are genuine.

Forniges and Sieling (2023) found that green confusion drove consumer distrust. The green confusion was found to stem from misleading advertising campaigns, corporate social responsibility (CSR) initiatives that were poorly communicated and vague eco labels. Forniges and Sieling (2023) conducted a qualitative exploratory study that utilised a focus group discussion through semi structured questions that were designed to investigate consumer knowledge on CSR. The group comprised of a total of 14 German participants aged between 20-28 and were chosen due to their familiarity to sustainability topics. The findings from Forniges and Sieling (2023) highlight that when consumers encounter unsubstantiated or conflicting claims that there is a struggle to distinguish between fashion brands that have true sustainable practices and those that are engaged in greenwashing. This misperception ultimately leads to lower green purchase intentions by consumers. The reasons for this were emphasised by participants as additional time required to research sustainability practices (lack of transparency), no thought of sustainability when purchasing (lack of education/knowledge on greenwashing tactics), and lack of affordable choices. This highlights the need for educational initiatives that bridge the gap by addressing consumer confusion. Consumers lack of knowledge about greenwashing tactics used by fashion companies contributes to the reduction in sustainable purchases.

Madeira (2021) considers how social media increases the effects of greenwashing through deceptive messaging. The participants in this qualitative study, which was comprised of young female consumers only, noted that social media platforms prioritise aesthetically pleasing content over factual accuracy. While the participants from Madeira (2021) agree that they can recall sustainable fashion advertisements, they fail to recall the brands that hold that claim. A number of them also spoke of

purchasing fast fashion items but being selective and only purchasing from the sustainable section of the website. All participants agreed that sustainable fashion items seem to be better quality but are also expensive and sometimes out of reach of young shoppers. Overall, the paper from Madeira (2021) depicted that young women were growing reliant on media platforms for information on sustainable fashion, therefore being subjected to greenwashing tactics that exploited emotional appeal as opposed to verified claims of sustainability. This suggests that media literacy should be used as an educational tool to critically evaluate greenwashing tactics on social media platforms.

A survey conducted by Bosch et al. (2023) explored how education influenced consumer ability to identify greenwashing, purchasing behaviour and trust in sustainability claims. The study included twenty-two participants, ten females and twelve males, between the ages of 18-25. The participants were divided into three groups, with a mixed gender and age focus for comparable perspectives. The discussions explored the participants perceptions of greenwashing, sustainable fashion claims and if they could identify advertising using greenwashing tactics. It was a semi structured discussion with guided questions that allowed open ended responses, giving further insight into participant behaviours. Participants filled in surveys prior to and after the discussion to give quantitative data on their understanding of the previously mentioned discussion points. The quantitative data from Bosch et al. (2023) found that consumers feel manipulated by misleading claims, they mentioned that the colour green and well-known identities are used as common tactics to create a false sense of sustainability. Bosch et al. (2023) also found that consumer education was an emerging theme during the interactive focus groups. The study successfully demonstrated that education of greenwashing tactics through discussion, increased participants ability to identify misleading and false claims. While education enhanced awareness, it failed to shift purchasing behaviour in most participants. Many still chose affordability, brand appeal and convenience over sustainability, highlighting a green behaviour gap.

Labrin Mesia (2024) notes that educating consumers on greenwashing is the most essential form of empowerment for consumers to make informed decisions on sustainable fashion purchases. Contrastingly, Fornoges and Sieling (2023) hold the brands accountable. Their findings emphasise the need for transparency, traceability, credible certifications, and consistent CSR communications to either gain back green trust or build it. Doing this was highlighted to increase green purchase intentions. Madeira (2021) concluded that collaboration between social media platforms and independent certified bodies could be a positive and influential way to promote authentic green sustainable practices in digital spaces.

Despite the insights from these articles there are several gaps. Labrin Mesia (2024) and Fornoges and Sieling (2023) detail greenwashing implications and consequences in detail, but they also provide limited discernment into how consumers with cultural or economic differences may perceive or respond to those practices. Bosch et al. (2023) also failed to explore cultural influences fully but had a more balanced approach to information provided. Bosch et al. (2023) did identify price sensitivity to sustainable products and that the lack of consumer education is holding back behavioural change.

Both of these key points were under explored. Madeira (2021) highlights the implications of social media as an area of concern that could have been delved more fully into. Madeira (2021) could have benefited from exploring how algorithms influence consumer purchasing and if advertising policies from those platforms could include algorithms that spread awareness of greenwashing or increase greenwashing tactics.

3.3 Greenwashing literacy and advertising.

Greenwashing literacy and advertising interventions are essential for fostering informed consumer behaviour and decisions. The article by Eng et al. (2021) examines the cognitive mechanisms in greenwashing literacy interventions. Using a controlled experiment, 476 United States participants aged between 18-35 were recruited. Eng et al. (2021) used textual quotes, visual imagery, and a combination of the two. Overall, the combined format was more successful in being effective by using solid information that emotionally engaged with consumers. It increased perceived measurements in vividness which increased engagement and recall of information on greenwashing tactics in advertising. The researchers found that this aligned with exemplification theory, where issues are presented to the public using exemplars that promote emotional responses through psychological processes using reduced cognitive load. Eng et al. (2021) found that the connection between cognitive load and investigative outcomes posed a challenge to Mayer's Cognitive Theory of Multimedia Learning, which is the retention of information from words and images. This could be due to the use of Instagram reels which are designed deliver high cognitive loads in brief time frames. They are designed to engage consumers but can overwhelm cognitive capacity causing fragmented attention and reduced information retention.

A qualitative study by Dutta-Powell et al. (2023) collected numerical data from 2,352 Australian participants using structured surveys designed to measure variables and is the largest survey of its kind to date. They focused on trust in green advertising, scepticism towards greenwashing and media literacy. A stratified sampling was applied so that the participant subgroups were proportionately representative of the national adult population from the most recent Australian census. The participants were divided into three groups, one group was randomly selected to represent the control group with no intervention. While the other two groups received information to include pre-bunking and literacy interventions, the literacy group received further information about different forms of greenwashing. Dutta-Powell et al. (2023) found that the group with the pre-bunking strategies had a slightly stronger understanding of greenwashing tactics. Dutta-Powell et al. (2023) noted that the participants that self-reported high environmental concerns were those that were more likely to trust sustainability claims without critical analysis.

An exploratory study that combined qualitative and quantitative measures by Moore (2022) focused on Generation Z's responses to green advertising and their literacy on greenwashing claims. The study comprised of sixty-six participants born between 1997-2012, the rationale for this age group was the generational influence on consumer trends and self-reported environmental activist status. A

representation of gender was not specifically noted. Moore (2022) adopted an experimental design that divided participants into two groups, a control group and one with green literacy interventions. They were then exposed to deceptive or acceptable advertisements. Moore (2022) discovered that participants who were exposed to greenwashing literacy, had increased abilities to critically evaluate the information and make informed decisions. There were three themes from the results. 1) There was an association between executional greenwashing (aesthetically nature evoking advertisement) and believable credibility. 2) Participants viewed green advertising positively but held scepticism towards the corporations creating the ads and 3) Environmental apathy is created as the challenges grow larger creating a psychological burden.

The literature has highlighted some gaps regarding the longevity of behavioural change towards greenwashing. The studies conducted by Eng et al. (2023), Dutta-Powell et al. (2023) and Moore (2022) demonstrate how interventions that have explored greenwashing literacy and pre-bunking strategies show potential in increasing consumer scepticism, but longitudinal studies remain limited. Their application is also generationally restricted. This is highlighted in Moore's (2022) study that was focused on the Generation Z cohort and highlighted the prioritisation of peripheral cues over critical evaluation of greenwashing claims. To be able to critically evaluate the effectiveness of the studies, the interventions need to be applied to diverse consumer groups. The lack of platform specific studies and their role on shaping consumer perceptions is lacking across the field of greenwashing. The insights into executional greenwashing on Generation Z cohort was examined by Moore (2022) and requires further insight into cognitive load and consumption patterns.

4. Discussion.

The studies reviewed provide an understanding of greenwashing and the impacts it has on current consumer knowledge, trust, and sustainable consumption in the sectors of food, fashion, and advertising. In the food industry, Cavazos et al. (2023) investigates how institutional practice shapes consumer behaviour. Institutional settings can undermine consumer autonomy within buffet style settings by promoting green behaviours like composting but failing to educate consumers on where composting bins are available. Jakubczak and Gotowska (2020) look at the occurrence of green coloured labels and the inconsistencies within the organic food section. They found that this greenwashing tactic created consumer confusion. Which highlighted another institutional influence of certification. De Sio et al. (2022) looked at how institutional transparency aids in restoring consumer trust. Their findings propose that environmental efforts and credible green claims can enhance purchasing behaviours and intentions from consumers. Labrin Mesia (2024) found that consumers see claims of sustainability as a trend that brands have adopted. Participants were found to dismiss brand loyalty even if genuine sustainability efforts were made. Fornges and Sieling (2023) identified green confusion as a primary reason for distrust and lack of brand loyalty. Their study found that companies that adopted poor CSR initiatives created a cognitive burden on consumers who have challenges critically evaluating genuine efforts. Madiera (2021) expands on this by looking at the role

of social media and how platforms prefer to adopt an aesthetic appeal over accuracy of claims. Participants acknowledged that high quality fashion items that have authentic green claims are often overlooked due to affordability. Eng et al. (2021) demonstrated that educational interventions through textual and visual aids within advertising can assist in raising awareness towards greenwashing tactics. There was found to be high cognitive loads while using social media platforms which did incur fragmented attention and reduced the retention of information. Dutta-Powell et al. (2023) found that literacy and pre-bunking strategies improved customers' ability to identify greenwashing tactics. They did discover that long term behavioural change was not affected particularly among those participants that already had a grasp of environmental sustainability and chose not to critically analyse information. Moore (2022) concentrated on how aesthetic appeal impacted Generation Z's ability to scrutinise green claims and how peripheral cues were relied upon to discern between false and authentic green claims.

5. Emerging issues for consideration.

5.1 Empowerment.

The literature reviewed explores community education that is directed towards accessibility, public participation, cultural and demographic approaches that address greenwashing tactics. Knowledge sharing within the community is reflected in Bosch et al. (2023) and Labrin Mesia (2024). Bosch et al. (2023) shows that community education that is inclusive and focuses on interactive learning through semi structured discussions, can improve consumers awareness on how to identify greenwashing tactics. Labrin Mesia (2024) discusses how incorporating greenwashing education into marketing strategies could assist in bridging the gap of informed purchasing decisions and consumer scepticism. These concepts reflect how the model of community education can empower consumers through knowledge by giving them the skills required to circumnavigate complex issues within real world contexts. Although education increases awareness of greenwashing tactics and consequences this can have on the environment, many of the studies found that it failed to create actionable behaviour changes within the participants. This suggests that there is a gap between knowledge and practical strategies for consumers to be able to effectively make decisions about products that are environmentally sustainable.

5.2 Structural barriers.

Structural barriers often challenge individual efforts of sustainability. Affordability and easily accessible educational tools for community education can be used to address these systemic factors. Fornges and Sieling (2023) noted that financial limitations lead consumers to choose items that are cost effective and convenient over items that are environmentally sustainable, pushing ethical considerations to the side. This was also noted by Bosch et al. (2023) when they found that although consumers can identify greenwashing tactics, they lack access to affordable and sustainable products. Cavazos et al. (2023) emphasises how institutional practices like buffet style settings can encourage

unsustainable behaviours that promote food waste, even though they encourage green behaviours like composting. Economic constraints facilitate a 'green behaviour gap,' contributed by consumer intent and action. Issues such as affordability exacerbate inequalities, primarily towards communities that are already marginalised.

5.3 Resilience against misinformation.

The literature highlighted the importance of adapting educational information to fit differing cultural and generational cohorts. Jakubczak and Gotowska (2020) discussed how perceptions of greenwashing can be influenced by cultural differences, and that localised educational efforts could enhance consumer awareness of tactics used. Their study looked at cultural contexts that included societal norms and how environment shaped consumers trust in green claims. It revealed that countries with strict environmental governance over sustainability with established regulations, had consumers with higher confidence of being able to identify green certifications. Moore (2022) and Madeira (2021) looked at how Generation Z and young women were influenced by aesthetic and emotional appeals when evaluating green claims. The use of digital platforms such as Tik Tok and Instagram creates emotional susceptibility towards false green claims through exploitation of visual cues as opposed to factual evaluation. When comparing these articles against the findings of Eng et al. (2021) and Dutta-Powell et al. (2023), there could be an effective way to build resilience through community education that incorporates pre-bunking and literacy strategies that identify deceptive claims of green behaviour.

6. Future strategies and research.

Enhancing consumer education is paramount to addressing future greenwashing tactics across the industries that impact consumers regularly. The integration of greenwashing literacy into educational curricula within primary and secondary education could prove to be a useful pre-bunking strategy. This could be incorporated with modules that cover environmental education and media literacy within subjects like science and social studies. Topics could include interactive activities like group projects, role playing and debates. Case studies could be used to further define critical thinking and analysing skills. Training teachers through professional development would equip educators with the knowledge and resources to guide and support students with effective pedagogical strategies. Within higher education, students could be encouraged to research greenwashing, be offered specialised courses on environmental ethics, or collaborate through practical experiences within businesses to focus on sustainability practices.

Launching public awareness and education campaigns that incorporate government initiatives could prove to be another useful strategy. Nationwide campaigns that include multiple channels to educate the public on greenwashing could be utilised through media channels such as TV, radio, social media and public events. When looking at previous studies, it was found that clear, concise information was the most comprehensive format along with emotional appeal through storytelling to engage

consumers on a personal level (Moore, 2022; Madeira, 2021). Demographic specific content for a targeted outreach is vital. Creating content that is tailored to suit different age groups, communities and cultures including materials in multiple languages can assist in reaching consumers in a broader capacity (Meer et al., 2023). The adaptation of educational materials to reflect local environmental issues, trending issues and cultural values and traditions could enhance community education and involvement (Alvarez-Garcia & Sureda-Negre, 2023). Collaboration with NGO's and community organisations through local workshops can create a network for the public to engage with. Educational materials could be distributed through community centres and libraries. Digital literacy is a tool to develop free online courses, tutorials and interactive games and apps that are age appropriate. Online literacy could also include how to be aware of algorithms and how they can influence content exposure, being able to critically analyse those would enable consumers to identify credible sources through critical analysis (Eng et al., 2021; Fornges & Sieling, 2023). Monitoring and evaluating the educational progress through assessment tools would enable continual development of public education on greenwashing. Longitudinal studies could be conducted to see if and how green choices are upheld and what implications or incentives were derived from prolonged practice. This could be used to evaluate pre and post educational measures and changes in consumer awareness through behaviour, which would allow policy reform to be analysed and up to date with consumer practice (Dutta-Powell et al., 2023; Eng et al., 2021).

7. Conclusion.

This narrative literature review has critically examined what role consumer education has on reducing susceptibility to greenwashing and there were three main themes that emerged – food, fashion, and literacy. The findings highlight the ubiquitous nature of greenwashing, the erosion of trust, misinformation, and reduced sustainability. Institutional practices, vague certification and misleading marketing tactics have aided in consumer scepticism and confusion.

Community education emerged as the most critical tool that will enable consumers to empower themselves to navigate misleading green claims. While education is crucial, it also falls short of creating long term behavioural change. This is due to structural barriers, primarily affordability, and accessibility of sustainable choices. Cultural and demographic barriers also hinder community education, highlighting the need for localised and inclusive education strategies. To bridge the gap between consumer knowledge and sustainable practices, future efforts must be made to insert greenwashing literacy into educational systems, launch public awareness campaigns and collaborate between governments, NGO's, and businesses. This will enhance transparency and create accountability which will promote consumer trust and further bridge the green gap between consumer knowledge and sustainable choices.

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