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Ecolabels in the Textile and Fashion Industry: Strengths, Weaknesses, and Recommendations for Improvement

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Opportunities and Challenges for Ecolabels in the Textile and Fashion Industry

The textile and fashion industry (TFI) significantly contributes to environmental degradation, prompting a growing interest in sustainable practices. Voluntary self-regulations, such as ecolabels, have proliferated as part of the industry's response to these concerns. Ecolabels enable firms to signal environmental commitment to key stakeholders, including governments, suppliers, and consumers, reducing information asymmetries in the TFI.

However, the industry's complex global value chains and diverse range of products pose challenges to ecolabel effectiveness. Despite their potential to guide business and consumers toward more sustainable choices, ecolabels in the TFI often suffer from a lack of standardisation, inconsistencies in environmental criteria, and insufficient transparency, limiting their role in fostering trust and sustainable decision-making. This study systematically assesses ecolabels in the TFI, with a focus on UK-specific challenges such as regulatory fragmentation, evolving consumer attitudes towards sustainability, and the growing importance of circular economy policies (e.g., UK Extended Producer Responsibility (EPR) framework). It helps businesses and consumers make informed choices that support sustainability and extend the longevity of garments by promoting responsible purchasing, care practices, and sustainable end-of-life decisions. Our research enhances transparency and comparability, helping allowing stakeholders to better understand the environmental impact of TFI products and their potential to contribute to long-lasting, sustainable wardrobes.

An Iterative, Qualitative Assessment Approach

This exploratory qualitative study focuses on ecolabels relevant to the UK market, drawing from academic and gray literature and ecolabel databases such as the Ecolabel Index (2024), Fashion United (2024), and 'Ecolabel guide' (Global Ecolabelling Network, 2019). We developed a conceptual framework (Figure 1) that builds on and extends theories of information asymmetry and consumer and producer uncertainty in ecolabelling (Cashore, 2002; Darnall et al., 2018; Darnall & Carmin, 2005). Our framework establishes a robust foundation for evaluating ecolabels, defined as: *voluntary self-regulation tools that indicate products (or processes) as environmentally preferable based on life-cycle considerations. Ecolabels signify that a product meet stated environmental and social criteria, claiming to have less negative environmental (and/or social) impacts compared to similar products. Ecolabels, with independently verified, credible, non-misleading information about the environmental impacts of products, differentiate products in the marketplace, aiming to promote more sustainable production and consumption practices* – in a way that enhances transparency and facilitates meaningful comparisons.

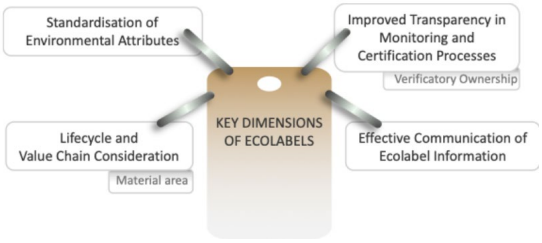

Figure 1. Conceptual framework of key dimensions and sub-dimensions to reduce information asymmetry and uncertainty and enhance ecolabel effectiveness. Source: Authors

Our framework addresses a gap identified by Ranasinghe & Jayasooriya (2021), contributing to more systematic methods for comparing and identifying the optimal ecolabel for specific garment products.

Findings: Strengths and Weaknesses of Ecolabels

We assessed 155 ecolabels, identifying 44 relevant to the UK TFI. Our findings reveal inconsistencies in environmental attributes: nearly half of the ecolabels do not address climate change, while nine focus exclusively on it (Figure 2). Most ecolabels are non-profit, with 43 verified by third parties, but only three meet ISO Type 1 standards (ISO, 2019).

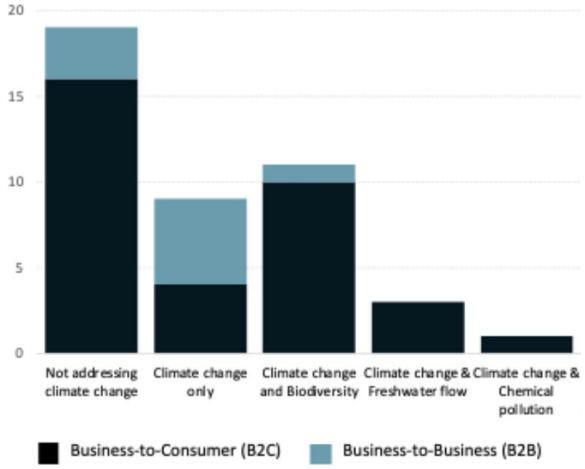

Figure 2. Distribution of ecolabels addressing climate change, either exclusively or in combination with other environmental attributes, showing the number of ecolabels in each category. Source: Authors

Ecolabels span different stages of the value chain, showing variation in sustainability certification approaches. Cradle-to-grave frameworks are increasingly popular in business-to-consumer (B2C) ecolabels, encouraging extended product lifespans through circular design, repairability, and responsible disposal. However, applying life-cycle methodologies presents several challenges, including the choice of system boundaries, ensuring sufficient data granularity, and maintaining consistency across product categories. Policy initiatives (European Commission, 2022; UKRI, 2023; UNSSC, 2020). further drive interest in circularity, but these complexities complicate the implementation of effective ecolabels in the UK textile market. While ecolabels align environmental priorities and promote transparency, fragmented standards, narrow lifecycle perspectives, and complex communication strategies hinder their effectiveness. By analysing the strengths and weaknesses of ecolabels in the TFI, our findings provide key insights into how ecolabels can encourage consumers to make informed choices that extend garment longevity, reduce premature disposal, and minimise the environmental footprint of fashion consumption.

Conclusion and Recommendations

Ecolabels play a critical role in shaping sustainability practices in the TFI by setting benchmarks, promoting transparency, and encouraging lifecycle thinking that supports longer garment use. For the UK textile sector, particularly amid shifting policies around extended producer responsibility and growing regulatory scrutiny, ecolabels can offer a competitive advantage by helping businesses demonstrate environmental commitment, improve consumer trust, and reduce premature disposal, thus supporting garment longevity and circularity. However, several challenges persist for them to remain relevant.

While ecolabels help align environmental priorities and influence consumer decisions, unclear criteria, inconsistent environmental attributes, and limited focus on durability and repairability hinder their impact on garment longevity. Transparency gaps in certifier ownership also contribute to consumer distrust.

To address these issues, we propose a unified definition of ecolabels to reduce confusion and build academic consensus. Current academic and industry approaches focus on fragmented aspects of ecolabelling, despite the clear scientific consensus on the interconnectedness of sustainability issues (Rockström et al., 2009).

For ecolabels to effectively promote sustainable practices, we recommend*:*

- Standardising environmental attributes and aligning them with global frameworks like the UN SDGs.
- Adopting a systems-based lifecycle approach that considers sustainability, across the entire value chain, from material sourcing to garment care and disposal.

- Strengthen standards beyond third-party verification to ensure absolute sustainability, transparency, and accountability.

- Enhancing communication strategies to balance clarity and technical detail, making ecolabels accessible and informative for diverse audiences.

Limitations and Future Research

Our study does not examine the direct relationship between ecolabels and the environmental performance of TFI firms, nor does it explore their social impacts. Future research should investigate the role of ecolabels in encouraging longer product lifespans, including their impact on consumer behaviors such as garment maintenance, repair, and responsible end-of-life decisions.

Additionally, further research should explore the frequency of ecolabel use within the UK TFI and their alignment with broader business sustainability strategies. Understanding how ecolabels influence both production and post-consumer behavior will provide deeper insights into their potential to drive long-term sustainability in fashion.

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