Avoiding greenwashing: should fashion brands create a separate collection to present their eco-friendly products?

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Abstract

Many fashion brands are seeking to improve their environmental performance by introducing eco-friendly products in their assortment, alongside their conventional products (e.g., C&A, Chanel, H&M, Maje, Zara). A strategic choice for these brands is to decide whether to present these eco-friendly products in a separate collection or to integrate them into their already existing conventional collections. In this paper, we investigate whether grouping eco-friendly products in a separate collection (vs. in the conventional collection) has an impact on consumers' perception of greenwashing for the brand. With the help of an online experiment, our results suggest that presenting eco-friendly products in a separate collection highlights the difference between eco-friendly and conventional products in the assortment, leading to conventional products being perceived as less sustainable. In turn, this results in a greater perception of greenwashing for the brand.

Keywords: *greenwashing, fashion collections, products categorization, green product evaluations*
Mots-*clés*: *greenwashing, collection de mode, catégorisation, produits éco-responsables*

1. Introduction

The fashion industry has long been criticized for its negative environmental impact, with some experts classifying it as one of the most polluting industries in the world (Boström & Micheletti, 2016). In response, many fashion brands have begun to implement changes to their product and production practices to reduce their ecological impact (Cronin et al. 2011). In practice, it is common for fashion brands to add "eco-friendly products" to an already existing assortment of product composed of conventional products, rather than replacing their entire product line with eco-friendly options. This practice, known as green brand extension, involves the introduction of eco-friendly products by brands notably to appeal to consumers who are increasingly concerned about sustainability (Yenipazarli & Vakharia, 2017). As a result, many fashion brands now have a heterogeneous environmental performance across their product assortment.

Some fashion brands choose to present their eco-friendly and conventional products in the same collection, such as Chanel, which introduced its first eco-friendly tweed suit within its 2022 Cruise Collection (Isaac-Goizé, 2021). Other brands opt to create separate collections for their eco-friendly products, such as H&M, which launched its "H&M Conscious" line in 2013, where the brand regroups the products it considers to be eco-friendly (Shen, 2014).

While the introduction of an eco-friendly collection has the potential to benefit fashion brands by differentiating them from competitors (Hesse et al., 2022), strengthening their environmental commitment (Kim & Ma, 2014), and enhancing the parent brand equity (Balachander & Ghose, 2003; Joshi & Yadav, 2017), the potential risks that accompany this practice and in particular the risk of being perceived as greenwashing is not well considered and understood.

This study aims to explore the underlying mechanisms behind consumer perceptions of greenwashing in the context of "sustainable collections" in the fashion industry. To do so, we will focus on the coexistence of eco-friendly and conventional products in a same brand assortment, and specifically examine the effects of incorporating eco-friendly collections on the perception of conventional products already present in the assortment. By providing insights into the potential side effects that an eco-friendly collection can have on a fashion brand conventional collections, this study will be useful for fashion brands as they consider using this strategy to manage the perception of greenwashing and will contribute to the broader literature on sustainable fashion and consumer greenwashing perceptions.

2. Theoretical Background and Hypotheses

By regrouping eco-friendly products in a separate collection, a fashion brand may be giving the impression that these products are significantly different from the brand's conventional products, which could potentially be seen as greenwashing if the differences are not substantial or if the environmental claims are not supported by evidence (TerraChoice, 2010). Greenwashing refers to the practice of making false or exaggerated environmental claims in order to promote a product or brand (Parguel et al., 2011).

Although one might think that presenting a brand's eco-friendly and conventional products in different collections provides a more transparent and coherent message about the brand's commitment to sustainability, and reduce the risk of confusion and greenwashing, highlighting the difference in terms of sustainability by separating the products into different collections may also create confusion for consumers about the overall environmental positioning of the brand (Rajagopal & Burnkrant, 2009). This is a concern because research on the perception of greenwashing suggests that when consumers are confused about a brand's environmental positioning, they are more likely to perceive greenwashing (Parguel, Benoît-Moreau, & Larceneux, 2011).

Delmas and Burbano (2011) found that poor environmental performance combined with positive communication about a company's environmental performance can lead to the perception of greenwashing. This is relevant to be considered in the reasoning because while fashion brands are often perceived as having poor environmental performance (Little, 2018), eco-friendly collections are a communication tool they use to communicate positively about their environmental initiatives. Fashion collections are defined as communication tools that allow designers to showcase the unique features of their clothing and tell compelling stories (Renfrew & Lynn, 2021).

Therefore, there is a strong rationale to expect that presenting the eco-friendly products of a fashion brand in a separate collection would increase the perception of greenwashing for the brand, which is the focus of our first hypothesis.

H1 - Consumers will perceive greater level of greenwashing when eco-friendly products are presented in a separate collection, as compared to when they are presented into the same collection as the conventional products of the brand.

To understand the mechanisms behind the greenwashing perceptions arising from sustainable collections in the fashion industry, we start by examining the coexistence of the eco-friendly and conventional products in a same assortment. In particular, we look at how the perception of the conventional products will be impacted by the addition of eco-friendly collection in the assortment.

The existing literature on the effects of green brand extension on consumer perceptions and evaluations of brands conventional products is extensive but reports results pointing in opposite directions. Some studies have found that green brand extensions can create a halo effect (Thorndike, 1920) on the overall product mix of the parent brand, leading to more positive evaluations of both the green and conventional products (Brown & Dacin, 1997; Blair & Chernev, 2014). However, other research has suggested that green brand extensions lead to less favourable evaluations of the conventional products. For example, Binnekamp and Ingenbleek (2008) hypothesized that the attribution of unsustainable practices in the production of conventional products becomes more salient in the presence of eco-friendly products, potentially leading to negative spillover effects on the parent brand. However, their study in the food sector did not find any significant effects of this phenomenon. On the other hand, Anagnostou et al. (2015) conducted a study using coffee products as stimuli and found that the introduction of sustainable products can challenge the norm of sustainability and negatively impact consumers' perceptions of the social and environmental performance, as well as the product quality, of conventional products of the brand. These findings suggest that the effects of green brand extensions on the parent brand and its conventional products may be complex, context-dependent and require further investigation. Therefore, this study aims to add knowledge about the effect of green brand extensions on conventional products of a brand with fashion products that are classified with collections.

In order to gain a deeper understanding of the impact of classification into same or separate collections, we engage with the literature on categorization in consumer psychology. This literature explores how individuals group objects based on product, brand, goals, and attributes. The categories are used in the inference-making process for evaluating the characteristics of products (see Loken et al. 2008 for a review). Considering this, we believe it is worthwhile to study the influence of product categorization by different collections in fashion on the evaluation of the perceived sustainability of conventional products. As previously discussed, this is a topic

on which the literature has not yet reached a consensus, and for which there is a need for further understanding.

The clustering of eco-friendly products in a separate collection leads to a categorization that emphasizes the existence of the two product categories in the brand assortment (i.e., the conventional and the eco-friendly products). This categorization could lead to a contrast effect of the sustainable collection on the conventional products (Tajfel and Wilkes, 1963). According to Tajfel and Wilkes's experiment (1963), people tend to overestimate the differences between the components of two groups (contrast bias) compared to the differences between the components of a same group (assimilation bias). In the context of a brand assortment composed of conventional and more eco-friendly products, we hypothesize that following the categorization of eco-friendly and conventional products in different collections, consumers will tend to overestimate the difference in sustainability between these two groups of products (as it is the characteristics used to classify products in one collection or another). As a result, conventional products will likely be perceived as less sustainable when the eco-friendly products are grouped in a separate sustainable collection compared to when the eco- friendly and conventional products are presented in the same collection, it is the focus of our second hypothesis.

H2 - Grouping eco-friendly products in a separate collection creates a contrast effect with the brand's conventional products, such that the latter are perceived as less sustainable than when the two types of products are presented in the same collection.

Implicit in the reasoning behind our first two hypotheses is the idea that the extent to which the conventional products of the brands are perceived as (un)sustainable influences greenwashing perceptions. Indeed, the more the conventional products are perceived as unsustainable, the greater the likelihood that consumers will view the creation of a separate sustainable collection as an attempt of the brand to appear as more environmentally responsible than it actually is. Moreover, the sustainable perception of conventional products is involved in the evaluation of the environmental performance of the brand which determines the perception of greenwashing (Delmas and Burbano, 2011). Thus, we expect the perceived sustainability of conventional products to mediate the effect of grouping eco-friendly products in a sustainable collection on consumers' perceptions of greenwashing of the brand.

H3 - The perceived sustainability of conventional products mediates the effect of grouping eco-friendly products in a separate collection on consumers' perceptions of greenwashing.

3. Methodology
We tested our hypotheses using a between-subject experimental design. We developed two scenarios about a fictitious clothing brand, Manajo, that offers both conventional and eco-friendly products. We used the scenarios to manipulate the presentation of conventional and eco-friendly products in a same or separated collection. The scenario design can be found in Appendix 1. The presentation of the scenario was followed by an online questionnaire composed of the items of our study constructs, manipulation checks and profiling questions. The constructs and manipulation checks are measured on 7-point Likert scales ranging from "strongly disagree" to "strongly agree". Measurement scales can be found in Appendix 2. 101 respondents were recruited from the general population through online posts on several websites and they were randomly assigned to one of the two experimental conditions.

Participants' average age was 30 with ages ranging from 17 to 63. The majority stated that their highest level of education was an advanced university degree (57%) or an advanced non- university degree (15%). 75% of the respondents to the survey are women.

4. Results

To test our two first hypotheses, we conducted independent samples t-tests. As expected in H1, the independent samples t-test indicates that the grouping eco-friendly products in a separate sustainable collection increases the perception of greenwashing (M = 4.18) in comparison with the introduction of eco-friendly clothing items in the same collection as the conventional clothes of the brand (M = 3.78, t = -2.21, p < .05). As expected in H2, results indicate that grouping of eco-friendly products in a separate sustainable collection decreases the perceived sustainability of conventional products (M = 2.7) compared to when conventional and eco-friendly products are presented in the same collection (M = 3.65, t = 3.69, p < .001). Our first two hypotheses are thus **supported**.

We tested the prediction that the perceived sustainability of conventional products mediates the effect of grouping eco-friendly products in a separate sustainable collection on perceived brand greenwashing using the PROCESS bootstrapping method (Hayes 2013; "model 4"; 10000 bootstrap samples). Results **confirm the mediation process** hypothesized in **H3**. Presenting eco-friendly products in a separate (vs. same) collection had an indirect, positive effect on the perceived greenwashing through lower perceived sustainability of conventional products (indirect effect: β =.1286, SE =.0473, 95% CI [.0481, .2320]). The direct effect of grouping eco-friendly products in a separate collection on perceived greenwashing was no longer significant after accounting for the perceived sustainability of conventional products as a mediator (direct effect: β = .0689, SE = .0882, 95% CI [−.1062, .2439]). These results support the existence of a full mediation model. The model with the estimations can be found in Appendix 3.

5. Conclusion and Recommendations

The environmental transition of fashion brands is certainly a challenge given the weight of this industry in environmental issues. This environmental transition phase of fashion brands can go through the introduction of eco-friendly products and collections in the brand assortment. A possible threat when a brand embarks on an environmental initiative is that it would be perceived as greenwashing. In this context, this study aimed to investigate how the initiative of creating a sustainable collection is perceived by the consumer.

The results of our study indicate that when a fashion brand integrate eco-friendly products into its assortment, if it decides to group the eco-friendly products in a separate collection, then this sustainable collection will create a contrast effect with the brand conventional products. Through this contrast effect, conventional products will be perceived as less sustainable because people will tend to increase their perception of different sustainability levels between the two types of products. As a result, consumers will perceive more greenwashing for the brand.

Our research contributes to the academic literature in two ways. Firstly, our study contributes to the literature on product categorization by investigating the contrast effect that arises from categorizing clothes in different collections. Specifically, our study investigates the creation of a separate sustainable collection and its effects on the sustainable perception of the brand assortment that has not yet embarked in the sustainable journey. Secondly, our study shows that grouping eco-friendly products in a sustainable collection tends to increase the perception of greenwashing for the brand. In this respect, our study contributes to the literature on the perception of greenwashing for fashion brands that introduce eco-friendly products and collections in their assortment.

From a managerial point of view, our study highlights that when brand managers attempt to improve their environmental communication by creating a separate sustainable collection, it puts the spotlight on the fact that part of their assortment is still not produced with the eco-friendly mindset. This could, according to our study, have a negative impact on the sustainable perception of these conventional products and increase the consumers' perception of greenwashing for the brand.

Knowing that perception of greenwashing negatively affects consumers' attitude towards the brand and purchase intentions (Szabo1 & Webster, 2021; Zhang, Li, Cao, and Huang, 2018). It also decreases the trust that consumers have towards the brand, and the green brand image (More, 2019). More broadly, the perception of greenwashing has a negative impact on the stock market value of the company (Du, 2015).

This study is subject to various limitations. Firstly, we use an experimental scenario to maximize the internal validity. Additional empirical tests should extend our results to field data to ensure external validity. Secondly, our study of the sustainable collection does not consider whether the sustainable collection is a capsule collection (which is a one-shot project) or whether the sustainable collection is a long-term project, for which the brand has made a line extension to hosts the sustainable collections over time. We invite a future study to look at these two concepts.

To conclude, our research has shown that grouping eco-friendly products in a collection separated from the conventional products increases the perception of greenwashing for the brand. This is because it highlights the fact that the brand has two types of products in its assortment, including a part that has not yet embarked on the environmental transition. We hope that our findings will stimulate research on mixed brand assortments composed of both eco-friendly and conventional products, and more importantly as this is an increasingly growing phenomenon.

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7. Appendix
Appendix 1 – Scenario design

Scenario 1 – Same collection condition

Scenario 2 – Separate collection condition

Appendix 2 – Survey measures

Outcome Variable	Journal	Author(s)	Original items	Items en français adaptés à notre étude
Perceived sustainability of this product: (Not presented, in any scenarios, with a sustainable dimension)	International Journal of Quality & Reliability Management	Kianpour, K., Jusoh, A., & Asghari, M. (2014)	1) The product is friendly to environment and harmless for nature. 2)The product has environmental certification for saving energy. 3)The product is green and harmless for human.	1)Ce T-shirt est respectueux de l'environnement et inoffensif pour la nature. 2)Ce T-shirt a une certification environnementale. 3)Ce T-shirt est écologique et non-toxique pour l'homme.
Perceived Greenwashing	Journal of cleaner production	adapted from Martínez et al. 2020	1)I believe that this brand fools consumers. 2)I believe that this brand is only green in its product/brand label. 3)I find it difficult to check that this brand is green. 4)This brand exaggerates the green features of its products. 5)This brand disguises the true features of its product to appear greener than it actually is. 6)This brand hides important information to appear greener that it really is. 7)This brand is truly ethical. 8)I believe this brand is only green in its communication.	1) Je crois que cette marque trompe les consommateurs. 2)Je crois que cette marque n'est écologique que sur sa description de produit. 3) Je trouve difficile de vérifier que cette marque est écologique. 4)Cette marque exagère les caractéristiques écologiques de ses produits. 5) Cette marque déguise les véritables caractéristiques de son produit pour paraître plus écologique qu'elle ne l'est en réalité. 6) Cette marque cache des informations importantes pour paraître plus écologique qu'elle ne l'est réellement.

				7) Cette marque est vraiment responsable. 8) Je crois que cette marque n'est verte que dans sa communication.
Manipulation checks				
Presence of sustainable products			1)Manajo introduces products with a sustainable dimension in the collection.	1)Manajo introduit dans sa collection des produits ayant une dimension durable.
Collection			1)The Manajo brand presents a sustainable capsule collection in its products	1)La marque Manajo présente une collection spéciale, à part de sa collection ordinaire, qui regroupe ses pièces éco-responsbles
Familiarity with the fictitious brand			1)This is the first time I am in contact with the brand Manajo	1)C'est la première fois que je suis en contact avec la marque Manajo
Attention question			According to current science, the earth is flat.	1)Selon les scientifiques, la Terre est plate
Profiling questions				
Environmental consciousness	Journal of business ethics	Parguel, B., Benoît-Moreau, F., & Larceneux, F. (2011).	1)I try not to buy from environmental companies that strongly pollute 2)When possible, I systematically choose the product that has the lowest negative impact on the environment 3)When I have the choice between two equivalent products, I always wonder which one pollutes less before buying	1)J'essaie de ne pas acheter aux entreprises qui polluent fortement l'environnement 2)Lorsque c'est possible, je choisis systématiquement le produit qui a l'impact le moins négatif sur l'environnement 3)Lorsque j'ai le choix entre deux produits équivalents, je me demande toujours lequel pollue le moins avant d'acheter.

| Past sustainable purchasing behavior	Journal of Marketing Management	Bohlen, G., Schlegelmilch, B., & Diamantopoulos, A. (1993).	Frequency of purchase of environmentally-friendly products	À quelle fréquence achetez vous des produits respectueux de l'environnement Jamais - Toujours
Age			How old are you ?	Quel âge avez-vous ?
Gender			Are you: - A woman - A man	Êtes-vous : - une femme - un homme
Education			What is your highest qualification? - Primary diploma (1) - Lower secondary diploma (2) - Upper secondary diploma (3) - Higher non-university degree (4) - Higher university degree (5) Post-graduate diploma (6)	Quel est votre plus haut diplôme ? - Diplôme primaire (1) - Diplôme secondaire inférieur (2) - Diplôme secondaire supérieur (3) - Diplôme supérieur non-universitaire (4) - Diplôme supérieur universitaire (5) Diplôme post-universitaire (6)
Profession			What is your profession? - Student, - Employee - Executive - Self-employed - Liberal profession - Retired person - Homemaker - Unemployed - Manual worker	Quelle est votre profession - Étudiant(e) - Employé(e) - Cadre - Indépendant(e) - Profession libérale - Personne retraitée - Homme/Femme au foyer - Sans emploi - Ouvrier
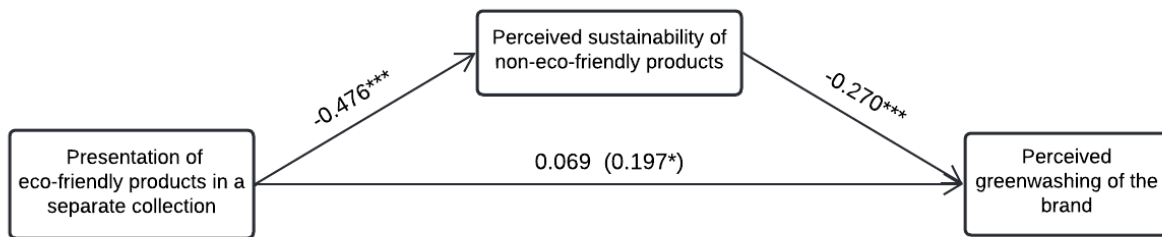
FIGURE 1 – Simple mediation analysis of presentation of eco-friendly product (predictor) on perceived greenwashing (criterion) through perceived sustainability of conventional products (mediating variable). *p < .05; **p <0.01; ***p < .001.