

## What Going “Green” Costs for Cosmetics: The Effect of Sustainability Claims on Colored Makeup Products

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### Introduction

While environmentally friendly product options are being integrated into the fashion and beauty industry, mere environmental consciousness has often been observed to not suffice to encourage actual purchase. While previous studies show optimistic results such as increased willingness to pay in exchange for sustainable options (Chekima et al., 2016), other studies have also probed the negative effect of sustainability claims on product purchase intentions. As previous studies that report positive outcomes of beauty products with green attributes mainly focus on gentleness-related categories such as skincare, this study addressed the wide research gap prevalent in the field of green makeup products, by applying previous literature on attribute evaluation and prioritized function mismatch.

### Literature Review

**Green claims and attribute evaluation:** Eco-friendly claims influence the evaluation of products, enhancing perceived quality but also harming perceived product efficacy (Lin & Chang, 2012), which even causes a paradoxical situation where consumers increase the amount of product they use and ultimately use more resources. Luchs et al. (2010) explained that such lay theories of correlating ‘gentleness’ with the ethicality of eco-friendly product was especially prominent in strength-dependent, problem solving products. Skard et al. (2021) observed that core attributes, which are attributes perceived to have direct effect upon product performance (e.g., ingredients), were negatively evaluated in terms of efficacy when they were emphasized to be green. The discrepancy between pro-environmental attitudes and actual buying behavior, coined the ‘green gap’, can be worsened when there is uncertainty of product performance (Gleim & Lawson, 2014).

**Makeup products and green products:** Makeup products have long held the role of appearance enhancement (Korichi et al, 2008). This often entails the concealment or coloration of certain features to enhance physical attractiveness, which can have various psychological effects on the wearer and the observer (Bower & Landreth, 2001). While makeup’s classification of being a self-enhancement product vs. problem-solving product differs by study, if self-enhancement serves the purpose of solving appearance dissatisfaction, it can be considered a problem solving product (Smith et al., 2021). Therefore, we hypothesized that makeup products’ appearance enhancement attributes would be negatively affected by green ingredient claims, thus influencing purchase intention.

**The goal-attribute theory:** The goal-attribute theory explains that perceived attribute competence is essential when consumers make the final choice of a purchase (Chernev, 2004). While preferred properties may differ depending on the individual, the goal of enhancing physical attractiveness has been observed to be prominent in color cosmetics (Smith et al., 2022). Kim and Kang (2018) identified ‘color-correcting/pigmented’ and ‘coverage’ to be attributes that served as criteria that consumers expressed their satisfaction about in online reviews as well. Thus, based on the previous literature of makeup category-specific goal-attribute fit, we hypothesized that visible sustainability claims would have a

negative effect upon evaluation of appearance enhancement properties. However, as the prime goal of makeup usage differs by individual, we hypothesized that the personal preference of appearance enhancing attributes would moderate the causal relationship of perceived appearance enhancement attributes leading to purchase intentions.

### Method

A single factor, web-based experimental study was adopted to test the effect of eco-friendly ingredient claims (present vs. absent) for makeup products' appearance enhancement attributes (high coverage, colored/pigmented properties). Eco-friendly ingredient claims were conveyed visually through a certification logo and text disclosure. Based on Marketline (2021) report results of market share, and neutral evaluation of pump type products (Kim & Kang, 2018), an airless pump foundation product was selected as the final stimulus image. Data analysis was conducted using SPSS 27.0 software PROCESS macro model 14 (Hayes, 2013) for hypotheses testing of moderated mediation.

### Results

Manipulation checks were successfully administered with a significant difference perceived eco-friendliness between groups ( $p < .001$ ). As the presence of environmentally friendly options are known to elicit pro-environmental attitude, homogeneity of pro-environmental attitude was confirmed between groups ( $p > 0.5$ ), as well as product category involvement. The presence of eco-friendly ingredient claims alone had no significant direct effect on purchase intention. However, the presence of eco-friendly ingredient claims had significant negative effect on perceived appearance enhancement attributes. Perceived appearance enhancing attributes fully mediated the effect that eco-friendly ingredient claims had on purchase intention. Indirect effect analysis results showed that attribute personal preference moderated the mediating effect.

### Discussion and Implications

Findings show important theoretical and managerial implications for the sustainability claims of appearance enhancing products. Evidence shows that the positive effects of eco-friendly ingredients in cosmetics, previously discussed as a wide category of 'beauty' products as a whole or focused largely on skincare and personal care products, may not be applicable for makeup products. As the presence of eco-friendly ingredient claims alone had a negative effect on perceived appearance enhancement attributes, this supports the lay theory of ethicality mentioned in previous studies regarding product efficacy evaluation (Luchs et al., 2010). Findings suggest that attribute-focused lay theories on green products must be addressed to minimize the 'green gap' in beauty product.

Next, marketers of makeup products that emphasize color and concealment are advised to take additional measures to compensate for negative perception of product attributes. Results underscore the risks of compromising on product attributes when conveying an environmentally-friendly message. This study contributes to the vast body of research on sustainable consumption, demonstrating that a differentiated approach must be taken depending on prioritized core attributes of a promoted product. As attribute preference is not universal, marketers are advised to adjust strategies according to the target audience.

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