

Redefining Luxury: Consumer Responses to Marketing of Lab-Grown vs. Natural Diamonds

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Abstract

The diamond industry is undergoing rapid transformation, driven by emerging trends and shifting consumer preferences. Lab-grown diamonds are becoming increasingly popular as an alternative to natural diamonds, encouraged by growing interest in sustainability, affordability, and ethical concerns. In this evolving market, marketing strategies play a crucial role in shaping purchasing decisions. This research examines how marketing strategies impact consumer intentions for lab-grown versus natural diamonds and identifies the most effective approaches. Using a survey-based quantitative method, individual strategies, such as price, ethical considerations, emotional appeal, and exclusivity, were tested separately. The findings reveal that while marketing strategies significantly influence consumer behavior, they have a stronger impact on natural diamonds. Price and ethical concerns favor lab-grown diamonds, while emotional appeal, exclusivity, and luxury branding reinforce the desirability of natural diamonds. Demographic factors also influence purchasing preferences, with younger consumers more open to lab-grown diamonds. This study may support future research on marketing strategies in diamond purchasing decisions. **Keywords:** diamond industry, lab-grown diamonds, natural diamonds, marketing strategies, purchasing intentions, consumer behavior

1. Introduction

The diamond industry is undergoing a significant shift with the rise of lab-grown diamonds, which are chemically identical to natural ones but offer ethical sourcing, environmental sustainability, and affordability (Lodha, 2024; Mihailovich et al., 2021). These benefits particularly appeal to Millennials and Gen Z, who prioritize social responsibility (Savin et al., 2024). Lab-grown diamonds require significantly less water and emit fewer greenhouse gases (Zhdanov et al., 2021; Nature Communications, 2024) and offer production cost advantages (Rrustemi & Tuchschnid, 2020). Traditional preferences, shaped by decades of marketing focused on rarity and emotional value (Keech et al., 2020; Purinton, 2012), persist. Lab-grown diamond brands emphasize sustainability and affordability (Ioannou & Mickshik, 2025), while natural diamond marketers highlight geological rarity and historical significance (Francis-Tan & Mialon, 2014; Spar, 2006). Consumer acceptance of lab-grown diamonds is growing, with 46% of couples choosing them in 2023 compared to 12% in 2019 (Bates, 2024), though prices have declined significantly relative to natural diamonds (McKinsey & Company, 2023).

Given rising interest but falling prices for lab-grown diamonds, this study investigates how specific marketing strategies along the decision journey (Giorgino & Mazzù, 2024) influence purchasing decisions for lab-grown versus natural diamonds. The research question is: To what extent do different marketing strategies impact consumer purchasing intentions for lab-grown versus natural diamonds? This study investigates the impact of eight distinct marketing strategies (detailed in the Methodology) to identify which factors most significantly influence purchasing preferences for lab-grown and natural diamonds.

2. Aims and Contributions

As lab-grown diamonds rise, understanding marketing's impact is crucial. Traditional drivers of luxury, such as rarity and exclusivity (Wang et al., 2022), still shape preferences for natural diamonds, but lab-grown alternatives require different marketing approaches to create desire and perceived value. This study draws on the concept of psychological ownership, which describes the feeling that a product is “mine” even before purchase (Morewedge et al., 2021). In luxury contexts, psychological ownership enhances perceived value and attachment, increasing the likelihood of purchase (Pierce & Peck, 2018). Marketing strategies can strengthen this connection by making products feel more personally relevant, attainable, or symbolically significant. The marketing strategies tested aim to activate psychological ownership through different mechanisms. Strategies like price and promotions make diamonds feel more accessible (Thompson & Malaviya, 2013), while eco-friendliness and ethical sourcing invite consumers to identify with the product's social and environmental values (Bhattacharya & Sen, 2004). Emotional appeal and luxury messaging reinforce symbolic exclusivity (Keller, 2013), and customization increases perceived control and uniqueness (Pierce & Jussila, 2011). Celebrity influence can foster psychological ownership by encouraging identification with aspirational figures (Pham et al., 2022).

It is expected that these strategies will impact consumer sensitivity differently depending on the diamond type. Lab-grown diamonds, which lack traditional luxury attributes, may rely more on marketing approaches that actively build psychological ownership, such as accessibility, ethics, and customization. In contrast, natural diamonds may continue to benefit from strategies that emphasize emotional value, luxury heritage, and exclusivity. Hypothesis: Marketing strategies influence consumer purchasing intentions for lab-grown diamonds more than for natural diamonds. This study contributes to luxury marketing research by comparing the effectiveness of marketing strategies for lab-grown and natural diamonds. Demographic factors like age, income, and location influence responses. By considering these differences, this study offers practical insights for tailoring marketing strategies to specific consumer segments in an increasingly sustainability-driven market.

3. Methodology

This study employed a structured survey divided into five main sections. The first section evaluated participants' diamond purchasing history and their awareness of the differences. The second section tested purchase intentions before and after exposure to marketing messages. The third section asked respondents to rank key decision-making factors when purchasing diamonds, including price, appearance, emotional significance, ethical concerns, and brand reputation. The fourth section assessed the persuasiveness of eight distinct marketing strategies. Participants evaluated scenario-based descriptions simulating realistic marketing situations to measure how each strategy influenced their purchasing likelihood. The strategies were rated on 5-point Likert scales (1 = Strongly disagree to 5 = Strongly agree), using items adapted from prior studies: price (Butcher, 2024), eco-friendliness (Tenuta et al., 2024), emotional appeal (Shields & Shields, 2021), luxury, specifically focusing on exclusivity and high-end branding (Wang et al., 2024), customization (Sun et al., 2024), celebrity influence (Philippe et al., 2021), ethical sourcing (Schulte et al., 2021), and

promotions (Gunter, 2002). All items were slightly adjusted to fit the diamond purchasing context. The final section of the survey collected demographic information, including gender, age, income, and place of residence.

The survey was conducted online using the Qualtrics® platform and was available from 20 December 2024 to 24 January 2025. Responses were collected via social media and personal outreach, ensuring a diverse but convenience-based sample. A total of 248 individuals accessed the survey, and after removing incomplete or invalid entries, 213 valid responses were retained for analysis. The final sample was balanced in terms of gender, with 51.6% identifying as male and 46.9% as female. Most participants were between 18 and 44 years old, representing the primary target group for diamond purchasing decisions. Most respondents reported annual incomes below €40,000. Geographically, the sample was diverse. 76.1% of respondents were based in Europe, with the largest groups from Italy (35.7%), South Africa (20.7%), and the UK (15.0%).

4. Findings

4.1 Impact of Marketing Strategies on Purchasing Intentions

A linear regression analysis was conducted to assess the impact of the eight marketing strategies (as presented in the introduction) on consumer purchasing intentions, which served as the dependent variable. All eight strategies were included as independent variables. The analysis revealed that these strategies explained 27.7% of the variance in purchasing intentions for lab-grown diamonds ($R^2 = 0.277$, $F(8, 204) = 80.991$, $p < 0.001$, $\beta = 0.797$). For natural diamonds, the explanatory power was higher, with 46.7% of the variance explained ($R^2 = 0.467$, $F(8, 204) = 184.575$, $p < 0.001$, $\beta = 1.203$). These results indicate that the combined marketing strategies were more effective in influencing consumer choices for natural diamonds than for lab-grown diamonds. The Pearson correlation coefficients confirm this difference, with $r = 0.527$ for lab-grown diamonds and $r = 0.683$ for natural diamonds.

4.2 Individual Marketing Strategies

Detailed analysis of the eight marketing strategies showed that price and eco-friendliness were the strongest positive drivers for lab-grown diamonds. The price strategy was rated highly persuasive ($M = 4.23$, $SD = 0.95$), followed by eco-friendliness ($M = 4.11$, $SD = 1.02$) and ethical sourcing ($M = 3.96$, $SD = 1.09$). These strategies were more effective for lab-grown diamonds than for natural diamonds, confirming that affordability and sustainability remain key selling points. In contrast, emotional appeal ($M = 4.35$, $SD = 0.86$) and luxury and prestige ($M = 4.17$, $SD = 0.94$) were the most persuasive strategies for natural diamonds. These results suggest that traditional messages focused on heritage, exclusivity, and emotional symbolism remain particularly influential for this product category. Customization was moderately persuasive for lab-grown diamonds, while celebrity influence and promotional discounts had smaller but still statistically significant effects. Celebrity endorsements had less impact, suggesting a limited effect of aspirational branding.

4.3 Summary of Hypothesis Testing

The results consistently demonstrate that marketing strategies exert a stronger influence on natural diamond purchases ($R^2 = 0.467$, $p < 0.001$) than on lab-grown diamond purchases ($R^2 = 0.277$, $p < 0.001$). The hypothesis that marketing strategies influence lab-grown diamonds more is therefore rejected. Gender ($B = 0.216$, $p = 0.038$ for lab-grown; $B = -0.216$, $p = 0.038$ for natural diamonds) and income ($B = -0.133$, $p = 0.014$ for lab-grown; $B = 0.133$, $p = 0.014$ for natural diamonds) were confirmed as significant moderating factors.

Overall, the results clearly answer the research question by demonstrating that marketing strategies have a stronger impact on natural diamonds than on lab-grown diamonds.

4.4 Influence of Demographic and Socio-Demographic Variables

The regression analysis confirmed that gender and income significantly influenced purchasing preferences for both lab-grown and natural diamonds. For lab-grown diamonds, female participants were more likely to purchase ($B = 0.216, p = 0.038$), while higher-income individuals were less likely to prefer lab-grown diamonds ($B = -0.133, p = 0.014$). For natural diamonds, male participants showed a stronger purchasing likelihood ($B = -0.216, p = 0.038$), and higher-income consumers were more inclined to buy natural diamonds ($B = 0.133, p = 0.014$). Age and geographic location did not have statistically significant effects on purchasing intentions in either case. Income strongly shaped purchasing preferences. Lower-income consumers preferred lab-grown diamonds ($B = -0.133, p = 0.014$) due to affordability, while higher-income participants favored natural diamonds ($B = 0.133, p = 0.014$) as luxury goods. Gender also influenced choices: females were more likely to purchase lab-grown diamonds ($B = 0.216, p = 0.038$), and males preferred natural diamonds ($B = -0.216, p = 0.038$). Non-European respondents were more likely to purchase lab-grown diamonds, while Europeans favored natural diamonds.

Most participants were young adults, with 39.9% aged 25–34 and 21.1% aged 18–24. Younger consumers were open to lab-grown diamonds, but preferences between diamond types remained fairly stable across age groups. Participants consistently ranked appearance as the most important factor in diamond purchasing decisions ($M =$

2.08, $SD = 0.99$), followed by price ($M = 2.32, SD = 1.19$) and emotional value ($M = 2.78, SD = 1.26$). Eco-friendliness was ranked fourth ($M = 3.56, SD = 1.35$), while brand reputation was the least influential factor ($M = 4.27, SD = 0.96$). These rankings show that although sustainability and branding matter, visual appeal and affordability drive decisions most. In summary, gender, income, and location strongly shape consumer preferences and marketing effectiveness, highlighting the need to tailor strategies to specific consumer segments, ensuring that messages align with the motivations, financial considerations, and cultural preferences of the targeted audience.

The limited sample, mainly young adults and lower-income consumers, restricts generalizability. As findings rely on self-reported intentions, future research should use diverse samples and real purchase data.

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