



The Preference for the Aesthetic Middle: A Perceived Risks Based Explanation

Alina Maria Braun, McLaren Automotive Ltd., United Kingdom
Veena Chattaraman, Auburn University, USA

Keywords: design aesthetics, perceived risks, aesthetic middle

Background. In recent years, design rather than functionality has been the key differentiator for products and brands; and designers have often used extreme design characteristics, such as extreme design minimalism and design novelty to gain consumer attention (Rawsthorn, 2007). This strategy creates products that are often overstyled (Rawsthorn, 2009), giving rise to the question “is more styling always better, or can too much styling actually hurt?” (Hagtvedt & Patrick, 2014, p. 518). Indeed, previous studies have highlighted the value of moderate aesthetic qualities over extreme ones (Berlyne, 1974; Cox & Cox, 2002; Giese, Malkewitz, Orth, & Henderson, 2014; Hung & Chen, 2012; Kumar & Garg, 2010; 2000; Leder, Belke, Oeberst, & Augustin, 2004; Mehrabian & Russell, 1974; Wang, Minor, & Wei, 2011; Wirtz, Mattila, & Tan). The Theory of Thresholds (Berlyne, 1974) describes the preference for the aesthetic middle in design and provides an arousal-based explanation for this preference. However, there has been a gap in aesthetics research in proposing a psychological construct to explain the preference for the aesthetic middle. Perceived risks are fundamental to the understanding of consumers’ choice behavior. This study explores if perceived risks are a psychological explanation for the preference of designs closer to the aesthetic middle. In the current consumer era of aesthetic sensitivity, the relation between design aesthetics and perceived risks is important because it may significantly impact consumers’ product evaluations and choices.

Purpose and Hypotheses. The purpose of this study was to investigate the effect of design aesthetics on perceived risks and purchase intentions and examine whether perceived risks play a mediating role in the relationship between design aesthetics on purchase intentions. The following hypotheses were tested: Design aesthetics will have a direct effect on purchase intentions (H1). For moderate design aesthetics, purchase intentions will be higher as compared to low (H1a) or high design aesthetics (H1b). Design aesthetics will have a direct effect on consumers’ risk perceptions (H2). For products with moderate designs aesthetics, there will be lower psycho-social risk perceptions (H2a), functional risk perceptions (H2b), and financial risk perceptions (H2c) as compared to products with high design aesthetics. Further, products with moderate design aesthetics will also lead to lower psycho-social risk perceptions (H3a), functional risk perceptions (H3b), and financial risk perceptions (H3c) as compared to products having low design aesthetics. Perceived risks [psycho-social (H4a), functional (H4b), and financial risk perceptions (H4c)] will have a negative influence on consumers’ purchase intentions. Further, perceived risks [psycho-social (H5a), functional (H5b), and financial risk perceptions (H5c)] will mediate the relationship between design aesthetics and purchase intentions.

Methods. Two pretests were conducted to select stimuli for manipulating design aesthetics (high, moderate, low). Based on the pretest, the stimuli employed in the main study consisted of two chair designs for each level of design aesthetics. An Internet-based experimental research design with design aesthetics as a within-subjects factor was employed to test the hypotheses proposed in this study. A total of 120 female U.S. residents participated in the experiment and evaluated the 12 chair designs in random order accompanied by measures for purchase intention, perceived risks (psycho-social, functional, and financial), and a manipulation check (for design aesthetics). Data was analyzed using ANOVA and regression with Hayes model.

Results. After confirming the success of the manipulation, the results revealed that design aesthetics had a significant main effect on purchase intentions ($F_{1,696,196.06} = 5.77, p = 0.006$) supporting H1. Moderate design aesthetics ($M_{\text{mod}} = 4.40$) led to significantly higher purchase intentions than products with low design aesthetics ($M_{\text{low}} = 3.54, p < 0.001$) and high design aesthetics ($M_{\text{high}} = 3.48, p < 0.001$), thus supporting H1a and H1b. Design aesthetics also had a significant main effect on all dimensions of perceived risks (psycho-social: $F_{1,725,198.36} = 4.76, p = 0.013$; functional: $F_{1,856,213.48} = 3.95, p = 0.023$; financial: $F_{1,873,215.38} = 4.84, p = 0.010$), supporting H2 and H3. Perceived psycho-social risks for moderate design aesthetic products were significantly lower than for low design aesthetic products ($M_{\text{low}} = 3.61, M_{\text{mod}} = 2.92, p < 0.001$) and high design aesthetic products ($M_{\text{mod}} = 2.92, M_{\text{high}} = 3.44, p < 0.001$) supporting H2a and H3a. Perceived functional risks for moderate design aesthetic products were also significantly lower than for low design aesthetic products ($M_{\text{low}} = 3.58, M_{\text{mod}} = 2.83, p < 0.001$) and high design aesthetic products ($M_{\text{mod}} = 2.83, M_{\text{high}} = 3.11, p = 0.042$) supporting H2b and H3b. Similarly, perceived financial risks for moderate design aesthetic products were significantly lower than for low design aesthetic products ($M_{\text{low}} = 3.84, M_{\text{mod}} = 3.34, p = 0.002$) and high design aesthetic products ($M_{\text{mod}} = 3.34, M_{\text{high}} = 4.17, p < 0.001$) supporting H2c and H3c. Results showed that all three dimensions of risks had a significant negative influence on purchase intentions (psycho-social risk: $F_{1,118} = 39.369, p < .001, \text{adjusted } R^2 = 24.4\%$; functional risk: $F_{1,118} = 22.645, p < .001, \text{adjusted } R^2 = 15.4\%$, financial risks: $F_{1,118} = 99.693, p < .001, \text{adjusted } R^2 = 45.8\%$) supporting H4a, b, c. Of the three perceived risks dimensions, financial risk had the highest influence on purchase intentions. Furthermore, based on Hayes analysis all dimensions of perceived risks (psycho-social: $Z = 0.0546, p = 0.0024, R^2 = 15.87\%$; functional: $Z = 1.75, p = 0.079, R^2 = 6.34\%$; financial: $Z = 4.277, p < 0.001, R^2 = 24.15\%$) partially mediated the effect of design aesthetics on purchase intention, thus partially supporting H5a, b, c.

Conclusions and Implications. We revealed perceived risks as a psychological explanation for the aesthetic middle preference in design. Aesthetic middle designs led to highest purchase intentions and lowest perceived risks. Understanding the level of design aesthetics to the success of new as well as existing brands and products is important because high design aesthetic products may prosper when positioned for consumers with advanced aesthetic expertise, but can fail with consumers who have limited expertise with aesthetic appreciation. These findings allow product, retail, and brand managers to appropriately tailor the level of design aesthetics (low, moderate, and high) in product offerings.

- Berlyne, D. E. (1974). *Studies in the new experimental aesthetics: steps toward an objective psychology of aesthetic appreciation*. Washington, DC: Hemisphere Publishing Corporation.
- Bloch, P. H. (1995). Seeking the ideal form: Product design and consumer response. *Journal of Marketing*, 59(3), 16-29.
- Cox, D., & Cox, A. D. (2002). Beyond first impressions: The effects of repeated exposure on consumer liking of visually complex and simple product designs. *Journal of the Academy of Marketing Science*, 30(2), 119-130.
- Giese, J. L., Malkewitz, K., Orth, U. R., & Henderson, P. W. (2014). Advancing the aesthetic middle principle: Trade-offs in design attractiveness and strength. *Journal of Business Research*, 67(6), 1154–1161.
- Hung, W.-K., & Chen, L.-L. (2012). Effects of novelty and its dimensions on aesthetic preference in product design. *International Journal of Design*, 6(2), 81-90.
- Kumar, M., & Garg, N. (2010). Aesthetic principles and cognitive emotion appraisals: How much of the beauty lies in the eye of the beholder? *Journal of Consumer Psychology*, 20(4), 485–494.
- Leder, H., Belke, B., Oeberst, A., & Augustin, D. (2004). A model of aesthetic appreciation and aesthetic judgments. *British Journal of Psychology*, 95(4), 489–508.
- Mehrabian, A., & Russell, J. A. (1974). *An Approach to Environmental Psychology*. Cambridge, MA: MIT Press.
- Rawsthorn, A. (2007, April 6). Why the overwhelming numbers of design flops? The New York Times. Retrieved from <http://www.nytimes.com/2007/04/06/style/06iht-design9.html>
- Rawsthorn, A. (2009, August 23). British Design: Not What It Used to Be. The New York Times. Retrieved from <http://www.nytimes.com/2009/08/24/fashion/24iht-design24.html>
- Wang, Y. J., Minor, M., & Wei, J. (2011). Aesthetics and the online shopping environment : Understanding consumer responses. *Journal of Retailing*, 87(1), 46 – 58.
- Wirtz, J., Mattila, A. S., & Tan, R. L. P. (2000). The moderating role of target-arousal on the impact of affect on satisfaction - an examination in the context of service experiences. *Journal of Retailing*, 76(3), 347–365.