

Adoption of innovative AI-based recycling technology: The role of visual design dimensions

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Abstract

The goal of this research is to investigate the effects of aesthetic, functional, and symbolic visual design dimensions on consumers' willingness to adopt a sustainability enabling technology innovation. Four different visual design versions of a smart recycling bin was presented to participants in an online study. Results show positive associations between perceived relative advantage of the innovation and perceptions of aesthetic, functional, and symbolic dimensions of visual design. In addition, perceptions of aesthetics and functionality were associated with lower perceived complexity of the innovation. In turn, participants reported stronger usage intentions when perceived relative advantage was high and perceived complexity low. This research contributes with new insight into the role of visual product design for new product adoption in the context of sustainability enabling technologies. Managerial implications and directions for future research are discussed.

Subject Areas: *Consumer Behaviour, Diffusion of Innovations, New Product Development and Launch*

Track: Innovation Management & New Product Development