

The Effects of Lighting Environments on the Perception and Psychology of Consumers of Different Genders in a 3C Retail Store

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Abstract : The main purpose of this study is to explore the impact of different lighting arrangements that create different visual environments in a 3C retail store on the perception, psychology, and shopping tendencies of consumers of different genders. In recent years, the 'emotional shopping' model has been widely accepted in the consumer market; in addition to the emotional meaning and value of a product, the in-store 'shopping atmosphere' has also been increasingly regarded as significant. The lighting serves as an important environmental stimulus that influences the atmosphere of a store. Altering the lighting can change the color, the shape, and the atmosphere of a space. A successful retail lighting design can not only attract consumers' attention and generate their interest in various goods, but it can also affect consumers' shopping approach, behavior, and desires. 3C electronic products have become mainstream in the current consumer market. Consumers of different genders may demonstrate different behaviors and preferences within a 3C store environment. This study tests the impact of a combination of lighting contrasts and color temperatures in a 3C retail store on the visual perception and psychological reactions of consumers of different genders. The research design employs an experimental method to collect data from subjects and then uses statistical analysis adhering to a 2 x 2 x 2 factorial design to identify the influences of different lighting environments. This study utilizes virtual reality technology as the primary method by which to create four virtual store lighting environments. The four lighting conditions are as follows: high contrast/cool tone, high contrast/warm tone, low contrast/cool tone, and low contrast/warm tone. Differences in the virtual lighting and the environment are used to test subjects' visual perceptions, emotional reactions, store satisfaction, approach-avoidance intentions, and spatial atmosphere preferences. The findings of our preliminary test indicate that female subjects have a higher pleasure response than male subjects in a 3C retail store. Based on the findings of our preliminary test, the researchers modified the contents of the questionnaires and the virtual 3C retail environment with different lighting conditions in order to conduct the final experiment. The results will provide information about the effects of retail lighting on the environmental psychology and the psychological reactions of consumers of different genders in a 3C retail store lighting environment. These results will enable useful practical guidelines about creating 3C retail store lighting and atmosphere for retailers and interior designers to be established.

Keywords : 3C retail store, environmental stimuli, lighting, virtual reality

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