How Spatial Thinking Ability Affects the Usage of Mobile Augmented Reality Apps in Retailing

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Abstract:

This study examines how spatial thinking ability affects user acceptance of mobile augmented reality (AR) apps for product evaluation. In two experimental studies, we explore how AR characteristics (interactivity, reality congruence) affect cognitive (media usefulness), affective (immersion, enjoyment), and behavioral (reuse intention) responses among consumers with varying levels of spatial thinking ability (low vs. high). In both studies, participants tested the IKEA Place app for products with different levels of contextual embedding: desks (Study 1) and desk chairs (Study 2). Results from Study 1 show that users with low spatial ability would reuse the app only for cognitive reasons (media usefulness), while for their counterparts, also affective reasons (immersion, enjoyment) are important. In Study 2, for products with low contextual embedding, low spatial ability users reuse AR for both cognitive and affective reasons, whereas their counterparts rely solely on cognitive factors.

Keywords: Augmented Reality, Spatial Thinking Ability, Reuse Intention

Track: Innovation Management & New Product Development