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ATTACHED TO AR EXPERIENCES: THE ROLE OF SELF-CONSTRUAL AND EMOTIONAL INTELLIGENCE

Mariana Berga Rodrigues, Instituto Universitário de Lisboa (ISCTE-IUL) and Business Research Unit (BRU-IUL), Portugal[1]
Sandra Maria Correia Loureiro, Instituto Universitário de Lisboa (ISCTE-IUL) and Business Research Unit (BRU-IUL), Portugal[2]
Maria João Santos Coelho, Instituto Universitário de Lisboa (ISCTE-IUL)[3]

ABSTRACT

This study, grounded in Self-Construal Theory, examines the influence of self-construal and emotional intelligence on Augmented Reality (AR) experiences, with a focus on their effects on brand attachment, flow, and perceived usefulness. Using IKEA as the focal brand, data was gathered through a survey of consumers who interacted with IKEA's AR tool in the IKEA app. The study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the proposed hypotheses. The results demonstrate that both independent self-construal and emotional intelligence positively affect immersion and flow within AR environments, as well as perceptions of brand usefulness, ultimately fostering stronger brand attachments. This research contributes to the literature by highlighting self-construal and emotional intelligence as significant drivers of flow experiences in AR. It also expands understanding of how individual psychological traits shape consumer behavior in AR settings, offering valuable insights for brands looking to leverage technology-driven strategies to enhance brand attachment through unique and engaging experiences.

Introduction

The rising popularity of AR has made a lot of brands adopt it such as Nike, IKEA, Amazon, L'Oréal, Tiffany & Co, and Sephora, among many other big and small brands (Brannon Barhorst et al., 2021). While brands have been increasingly investing in AR technologies, AR has also gained significant attention within academic environments. Various authors have investigated the impact of AR in brand engagement (Amorim et al., 2022; Cuomo et al., 2020; Rauschnabel et al., 2019), purchase intention (Kowalczuk et al., 2021; Uhm et al., 2022; Yim et al., 2017), satisfaction (Brannon Barhorst et al., 2021), reuse intention (Kowalczuk et al., 2021), and other behavioural and cognitive affects (Brannon Barhorst et al., 2021; Hilken et al., 2017; Kowalczuk et al., 2021; Uhm et al., 2022; Yim et al., 2017).

Additionally, several studies suggest that brand experiences can foster brand attachment (Hongsuchon et al., 2023; Huaman-Ramirez & Merunka, 2019). Leveraging augmented reality to create unique brand experiences offers a promising opportunity to enhance brand attachment (Arya et al., 2024). Brand attachment can strengthen brand commitment, resilience to negative information, brand loyalty, repurchase intention, brand advocacy,

[1] mobrs@iscte-iul.pt
[2] sandramloureiro@netcabo.pt
[3] mjsco2@iscte-iul.pt

positive WOM and willingness to pay a price premium (Huaman-Ramirez & Merunka, 2019; Shimul, 2022). Yet, few studies on brand attachment have explored how individuals' characteristics (emotional intelligence and self-construal) can influence consumers perceptions of AR.

Within this context, this study aims to answer the following research question: How do self-construal and emotional intelligence influence augmented reality experiences and their impact on brand attachment? Drawing on self-construal theory our objectives are to understand the influence of augmented reality on brand attachment for a specific type of individual, namely interdependent individuals, considering the impact of (i) flow experience and (ii) usefulness.

Theoretical Background

Brand attachment refers to the strong emotional bond between a brand and an individual, where the brand is seen as an extension of the self (Park et al., 2006). The strength of this connection, both cognitive and emotional, determines how closely the brand is tied to one's identity (Belk, 1988; Park et al., 2006; Shimul, 2022; Thomson et al., 2005). Research on brand attachment explores various aspects, including the brand's role in self-extension (Belk, 1988), emotional ties linked to memories (Park et al., 2006), and the sense of unity with the brand (Park et al., 2010). In essence, brand attachment is an emotional connection shaped by cognitive and affective links with the brand (Shimul, 2022). Alabed et al. (2022) analysed self-construal's impact on self AI integration depending on congruence between the tool and the self, concluding that there is a connection between self-congruence and self-construal in which the way we perceive ourselves will impact the way we see and use the tools brands provide. Malär et al. (2011) studied the relationship between self-congruence and brand attachment from which derived the conclusion that brand attachment is strengthen if the brand in question reflects consumer's actual and ideal self.

Self-construal refers to how individuals differentiate themselves based on their thoughts, feelings, and actions (Singelis, 1994). According to Markus and Kitayama (1991), self-construal can be categorized into two dimensions: Independent and Interdependent. Those with an independent self-construal view themselves as distinct from societal norms, defining their identity through internal traits such as abilities and goals (Singelis, 1994). They are more likely to express attitudes that emphasize individuality (Aaker & Schmitt, 2001). In contrast, individuals with an interdependent self-construal define themselves through social connections, adopting attitudes that align with group norms (Aaker & Schmitt, 2001; Singelis, 1994).

Furthermore, self-congruency theory suggests that brand attachment arises from self-congruity, which refers to the alignment between an individual's self-concept and a product or brand (Joseph & Su, 2000; Sirgy, 2018). As noted by Joseph & Su (2000), the stronger this alignment, the more likely it is that a consumer will engage with the product or brand. Considering the affective concepts of brand attachment, there seems to be a relationship between individuals possessing emotional intelligence and brand's attachment (Vredeveld, 2018). Emotional Intelligence is defined by (Mayer & Salovey, 1997) as the capacity to recognize and understand emotions, use emotional knowledge, and control feelings to

foster emotional and intellectual development. Existing literature reveals that emotional intelligence can improve emotional skills, academic performance, well-being, and mental health, while fostering critical thinking and reducing substance abuse (Bulmer Smith et al., 2009; Humphrey et al., 2007; Zeidner et al., 2002). In brand relationships, emotional intelligence strengthens emotional connections with brands, fostering brand attachment, and enhancing purchase intentions and attitudes (Vredeveld, 2018).

Flow, as defined by Hoffman & Novak (2009), is complete immersion in an activity, often leading to positive outcomes like increased learning, control, and user engagement (Brannon Barhorst et al., 2021; Hoffman & Novak, 2009; Novak et al., 2000). Key flow antecedents like interactivity and vividness are often seen in AR environments (Brannon Barhorst et al., 2021; Yim et al., 2017). Studies show that flow in AR can boost purchase intention, satisfaction, and psychological ownership (Chen & Lin, 2022; Brannon Barhorst et al., 2021), encouraging repeat use and positive consumer behavior.

According to Csikszentmihalyi (2014) there is a relationship between flow experience and the fit of the self with the experience. If the experience is not challenging enough, or too challenging, if the experience accentuates feeling of boredom or anxiety, it can make the consumer lose focus and interest in the challenge and not take the proper value out of it (Csikszentmihalyi, 2014). Within this context, we propose that flow experience will impact the relationship between independent self-construal and brand attachment, as well as emotional intelligence and brand attachment. If IKEA AR Experience is engaging, novel and not too widely used, it may positively affect Independent self-construal and consequently foster brand attachment. When it comes to emotional intelligence, if aware of their emotions and in control of them, the easier it will be to be immersed and enjoy the experience.

In addition, perceptions of usefulness are often a key factor in the acceptance of technology (Davis, 1989; Nam et al., 2019), as well as in driving positive outcomes like usage intentions, purchase intentions, and satisfaction (Brannon Barhorst et al., 2021; Kowalczuk et al., 2021; Yim et al., 2017). Perceived usefulness refers to the extent to which an individual believes a technology will provide benefits (Davis, 1989). A technology is deemed useful when users believe it will enhance performance outcomes (Davis, 1989). In AR environments, this perception is amplified as the technology enhances message delivery and media usefulness, improving information comprehension and elevating the perceived quality and value of a brand (Yim et al., 2017). IKEA App allows users to bring their creativity into designing their unique spaces and evaluating the products and their placement in their surroundings, delivering a personalized experience, unique (pioneers in the field), while also allowing people to share their experiences. This sense of individuality of the experience may appeal to independent self-construal individuals (Alabed et al., 2022) and the creativity and memorable feeling for high emotional intelligent individuals (Vredeveld, 2018). According to Sheinin et al. (2011) useful characteristics of brand can evoke certain brand attitudes, and so, we conjecture that through the mediating effect of usefulness, individuals with independent self-construal and emotional intelligence will be more prone to create brand attachments with a brand that uses augmented reality experiences to enhance their user experience in online strategies.

Methodology

For this study, IKEA was selected as the focal brand. As the leading global furniture retailer, with a 71.4% market share in Europe and a customer-centric approach, IKEA's AR function allows customers to virtually place 3D furniture models in their homes, enhancing its e-commerce strategy and distinguishing it from competitors (Chylinski et al., 2020; Heller et al., 2019).

To assess the outcomes of the AR experience, a survey was conducted in IKEA stores between June and July 2024. Participants who had used the AR tool in-store completed a questionnaire measuring key constructs from the conceptual model. Emotional Intelligence was adapted from Law et al. (2004), independent self-construal from Singelis (1994), usefulness from Warren et al. (2019), flow from Yim et al. (2017), and brand attachment from Malär et al. (2011).

The sample consisted of 221 participants, with the majority being female (55.7%), aged 18-30 (59.3%), and holding a bachelor's degree (56.1%). Most participants (68.3%) were employed, with 65% earning under €2000 per month.

Findings and Discussion

Using partial least squares structural equation modeling (PLS-SEM), the analysis demonstrates a strong model fit, with an SRMR of 0.067, a Chi-square value above 0 indicating high predictive capability, and an NFI of 0.814, meeting recommended thresholds (Hair et al., 2019). In assessing the reliability and validity of the constructs, all internal consistency reliability values exceed 0.7, and the Average Variance Extracted (AVE) scores for convergent validity are all above 0.5 (Hair et al., 2019). Bootstrapping in SmartPLS4, using a 95% confidence interval, confirmed all hypotheses. The findings reveal that emotional intelligence positively influences flow experience ($\beta = 0.239$, $t = 3.026$, $p < 0.002$) and perceived usefulness ($\beta = 0.214$, $t = 2.721$, $p < 0.007$). Similarly, independent self-construal has a significant positive effect on flow experience ($\beta = 0.471$, $t = 6.263$, $p < 0.000$) and usefulness ($\beta = 0.557$, $t = 7.423$, $p < 0.000$). This finding aligns with Loureiro et al. (2024), who suggest that individuals with independent self-construal derive greater experiential value from a tool, particularly when they can recognize its potential. It also supports Felbermayr and Nanopoulos (2016), who emphasize that emotions play a significant role in shaping perceptions of usefulness.

As mediators, flow experience ($\beta = 0.490$, $t = 7.423$, $p < 0.000$) and usefulness ($\beta = 0.381$, $t = 8.774$, $p < 0.000$) significantly enhance brand attachment. Noort et al. (2012) stated that high levels of flow experience can lead to behavioural and cognitive actions by consumers, Thus, we align with the conclusions of Noort et al. (2012), affirming that the flow experience has the potential to mediate the relationship between independent self-construal, emotional intelligence, and brand attachment, thereby enhancing the latter. Additionally, indirect effects show that both flow experience and usefulness mediate the relationship between antecedents and brand attachment.

Overall, these results highlight the crucial role of psychological traits and flow states in fostering deeper emotional connections with brands through AR experiences. Based on the results, we recommend practitioners design AR experiences that enhance flow and tailor the content based on whether the target audience has an independent or interdependent self-

construal. Understanding the self-construal of the target audience can help create more personalized and emotionally resonant experiences, fostering deeper brand attachment.

Keywords: Augmented Reality Experiences, IKEA, Self-Construal, Emotional Intelligence, Brand Attachments

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