

Doctor of Business Economics

Enriching the digital consumer experience: Studying the Role of Virtual Reality, Augmented Reality
and Touch Technologies

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Abstract

In this dissertation, we investigate the role of Virtual Reality, Augmented Reality and touch technologies in enhancing the consumer experience.

The marketing landscape has changed drastically over the last few decades, including for instance the rise of the internet and e-commerce. As a result, digital marketing has had an immense impact on interactions with customers. Moreover, customer experiences are growing evermore important and consumers become increasingly demanding as technology develops. Given the importance of customer experiences and the potential for further research in that field, the core of this dissertation entails the examination of the potential of technologies that enable feelings of 'presence', namely Virtual Reality, Augmented Reality and touch technologies, and their role in providing a more realistic and direct experience, thereby (positively) affecting key consumer behavioural outcomes.

The first study examines the impact of using a Virtual Reality-based brand experience as compared to a brand experience that is communicated via a two-dimensional video. The findings reveal that, via vividness and the partial mediator presence, communication via VR results in more positive responses regarding attitudes toward the advertisement, the brand, and consequently purchase intentions.

The second study further examines the impact of a Virtual Reality brand experience versus a two-dimensional presentation on brand personality perceptions, and reveals that a more sensorially rich and immersive medium evokes more pronounced brand impressions as based on Aaker's brand personality scale.

The third study examines the impact of a Virtual Reality experience in a shopping mall environment on crowding perceptions. The findings reveal that the use of the VR experience positively affects consumers' attitudes toward the mall, satisfaction and loyalty intentions as compared to non-users, particularly when consumer perceive the store environment as crowded.

The fourth study examines the use of Virtual Reality for travel retail, as compared to 360 degrees tours and pictures. The findings reveal that interactivity is relatively more important in generating telepresence as compared to vividness. Furthermore, the study demonstrates that reported levels of flow, enjoyment and purchase intentions are highest for VR, followed by 360 degrees video and lowest for pictures.

The fifth study investigates the impact of Augmented Reality as compared to touch and non-touch interfaces on perceptions of perceived ownership. Analysis reveals that perceived ownership is highest in the case of AR, in particular for products with material properties (products that require sensory information) as compared to products with geometric properties (products that can be examined visually or via written information).

The sixth study examines the potential impact of touch technologies for retailing with regards to possible applications of the technologies and the product types for which this could be relevant, as well as barriers to acceptance and their value in the various stages along the path-to-purchase. The study reveals that touch technologies can provide both utilitarian and hedonic value to consumers, mainly in the pre-purchase stages, by providing information about material and geometric product properties.

Overall, this bundling of studies contributes to the literature by providing insights into the benefits of using VR, AR and touch technology to improve the customer experience, particularly regarding applications in marketing communications, remote retailing and in-store.