

Association for Information Systems

## AIS Electronic Library (AISeL)

---

WHICEB 2021 Proceedings

Wuhan International Conference on e-Business

---

Summer 5-28-2021

### Augmented Reality and Marketing: A Systematic Review

Jun Liu

*School of Sports Business, Beijing Sport University (Beijing), China, junliu\_0929@163.com*

Zhao Du

*School of Sports Business, Beijing Sport University (Beijing), China; The Key Laboratory of Rich-Media Knowledge Organization and Service of Digital Publishing Content, Institute of Scientific and Technical Information of China, Beijing, China, duzhao@gmail.com*

Follow this and additional works at: <https://aisel.aisnet.org/whiceb2021>

---

#### Recommended Citation

Liu, Jun and Du, Zhao, "Augmented Reality and Marketing: A Systematic Review" (2021). *WHICEB 2021 Proceedings*. 25.

<https://aisel.aisnet.org/whiceb2021/25>

This material is brought to you by the Wuhan International Conference on e-Business at AIS Electronic Library (AISeL). It has been accepted for inclusion in WHICEB 2021 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

Full Research Paper

## Augmented Reality and Marketing: A Systematic Review

Jun Liu<sup>1</sup>, Zhao Du<sup>1,2\*</sup>

<sup>1</sup> School of Sports Business, Beijing Sport University (Beijing), China

<sup>2</sup> The Key Laboratory of Rich-Media Knowledge Organization and Service of Digital Publishing Content, Institute of Scientific and Technical Information of China, Beijing, China

**Abstract:** Augmented reality (AR) has been seen as the next big thing to change the way people perceive and interact with the world. Many researchers have attempted to explore how AR can be combined with different scenarios to create an immersive experience for the customers. However, previous studies on AR were fragmented, which may lead to lacking a holistic understanding of it. Our study intends to figure out the main themes and future trends of AR in marketing by conducting a systematic review of 118 papers. We divide the application of AR in marketing into four categories such as advertising, gaming, retailing, and experiences of place (tourism, museum, and sport events). In each category, we summarize current research progress and propose future research agendas for researchers. They can address the current research gap and open up new research perspectives based on our work. This study also provides practical implications for system developers and managers to design and apply this technology in their field.

Keywords: augmented reality, marketing, advertising, game, retailing, tourism, museum, sport events

### 1. INTRODUCTION

Augmented reality (AR) projects virtual information into consumers' physical surroundings providing embodied experience for them to interact with superimposed content. Managers in different fields such as games and retailing have leveraged this technology to increase sales and implement effective communication. Meanwhile, scholars have also provided evidence for the advantage of AR in different aspects including AR's characteristics, customers' experience, and purchase decision. Accordingly, this study realizes the necessity of conducting a systematic review to reveal the latest development and seek breakthrough of AR in marketing.

Taking "augmented reality brand" OR "augmented reality customer" OR "augmented reality marketing" OR "augmented reality experience" as search terms in Web of Science, Scopus, Ebscohost, and Elsevier ScienceDirect, we identified 118 papers that published before 2021 in the final analysis. We first conduct a descriptive analysis of these literature. Then, we explore the relationship between AR and marketing in different fields. Finally, theoretical and managerial implications are discussed.

### 2. RESULTS

#### 2.1 Descriptive analysis

Based on published year of the papers, we can conclude that AR's application in marketing is still a frontier research direction since there is no closely relevant paper until 2014 and 89% (n=105) of the studies were published between the year of 2017 and 2020. Among the 59 source journals, Journal of Retailing and Consumer Service is the largest source of publications, accounting for 12.71% (n=15). In accordance with journal type, 53.39% (n=63) of the studies focus on retailing, and the number of the studies in other fields in order are tourism, games, advertising, museum, and sport events. With regard to research method, quantitative research occupied 76.6% (n=88) of the selected papers. Besides, 7% (n=8) of the studies employed a multimethod approach, of which the mix of interview and questionnaire was most used.

---

\* Corresponding author. Email: duzhao@gmail.com (Zhao Du), junliu\_0929@163.com (Jun Liu)

## 2.2 Studies on AR's marketing in different fields

In the field of advertising industry, audience's perception of AR advertising (ARA) is affected by the familiarity of ARA. The perceived informativeness and the attitude towards the ARA will be weakened by the increase of familiarity [1]. Blending business strategies with digital economy era, Snapchat's brand filter is an innovative advertising pattern allowing users to express themselves with AR technology. Studies on AR games showed that users' usage intention is driven by hedonic, emotional, and social needs, while their continuous usage is less affected by social factors [2]. It emphasizes more on user experience and the calculus of rational benefits and risks. When it comes to tourism industry, tourists who are high-sensation seekers are more likely to be satisfied with AR [3], and culture background also has impact on the preference of AR. Besides, for both tourism and sports industry, visual appeal is a predictor of behavior intention [4]. Tourists' adoption of AR is also affected by the quality of AR, tourists' personal factors such as personal innovativeness, and tourists' perception of AR. Studies on museum presented that wearable AR is a driving factor to influence visitors' willingness to a museum. Applying AR in online retailing help customers better make purchase decision and enhance their shopping experience [5]. But studies on the benefits of AR on brand didn't form a consensus. Many psychological characteristics such as body consciousness and cognitive style have also been confirmed that they will lead to different perception of AR. By contrast, studies on offline stores were fewer. Current studies mainly focused on smart experience, which is driven by hedonic, functional, social, and epistemic value.

## 3. CONTRIBUTIONS

By reviewing AR's application in different fields, it shows that each field has the similar research content, 1) the advantages of AR compared with prior approach; 2) the influence of AR on consumers' perception and how does it vary in different consumers; 3) how does AR solve the traditional problems in each field. It is also worth noting that though the characteristic of AR is definite, it can be interpreted differently based on the application context. Additionally, the combination of virtual and reality enables users to gain not only fun but also knowledge and health from AR-related products or experiences.

This study reveals the current research status of AR's application in marketing, it also points out the main function of AR in different fields and presents future research agendas. From a practical standpoint, it provides managerial recommendations about how to leverage AR to engage consumers with their service.

## ACKNOWLEDGEMENT

This paper is supported by the National Natural Science Foundation of China (71901030) and the fund of the key laboratory of rich-media knowledge organization and service of digital publishing content (ZD2020/09-07).

## REFERENCES

- [1] Yang S, Carson J R, Chen S. (2020). How augmented reality affects advertising effectiveness: The mediating effects of curiosity and attention toward the ad, *Journal of Retailing and Consumer Services*, 54(C)
- [2] Hamari J, Malik A, Koski J, & Johri A. (2018). Uses and Gratifications of Pok émon Go: Why do People Play Mobile Location-Based Augmented Reality Games?, *International Journal of Human-Computer Interaction*, 35(9): 804-819
- [3] Park S, Stangl B. (2019). Augmented reality experiences and sensation seeking, *Tourism Management*, 77:104023
- [4] Rogers R, Strudler K, Decker A, Grazulis A. (2019). Does augmented reality augment the experience? A qualitative analysis of enjoyment for sports spectators, *Media Watch*, 10(3): 664-674
- [5] Heller J, & Chylinski M, de Ruyter K, Mahr D, & Keeling D I. (2019). Let Me Imagine That for You: Transforming the Retail Frontline Through Augmenting Customer Mental Imagery Ability, *Journal of Retailing*, Elsevier, 95(2): 94-114