A CONCEPTUAL MODEL FOR BUILDING THE RELATIONSHIP BETWEEN AUGMENTED REALITY, EXPERIENTIAL MARKETING & BRAND EQUITY

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ABSTRACT

Purpose: This study aims to build a conceptual model based on the S-O-R (Stimulus-Organism-Response) framework to understand how Augmented Reality influences brand equity. The proposed model is intended to look into the influence of AR attributes like interactivity, vividness, modality, novelty, and media richness on consumers’ experiential values and brand equity in e-commerce.

Theoretical framework: This study developed the conceptual model by following the Stimulus-Organism-Response (S-O-R) Model (Mehrabian & Russell, 1974).

Design/methodology/approach: To advance the conceptual and managerial understanding of AR as an experiential marketing tool, this study followed the systematic literature review approach to build the integrated conceptual model.

Findings: Results of the study has developed a conceptual model for studying the application of AR technology as an experiential marketing tool on customer purchasing experience and brand equity in the e-commerce setting.

Research, Practical & Social implications: This study contributes towards the available literature by studying the AR and its various dimensions for building brand equity. This study will not only assist the e-commerce firms in their decision-making process about adopting this technology but also the marketers to develop the effective marketing strategies for consumer experience of AR uses on e-commerce platforms.

Originality/value: This study introduces modality of AR as a media characteristic in its interface in creating seamless user experience in the proposed model.

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RESUMEN

Objetivo: El objetivo de este estudio era identificar el perfil de la investigación académica sobre aprendizaje combinado en todo el mundo y proponer una agenda de investigación sobre el tema.

Marco teórico: La literatura reciente ha informado de buenos resultados tanto en el rendimiento como en la satisfacción de los estudiantes en el aprendizaje combinado (Dziuban et al., 2004). Sin embargo, aún queda mucho por investigar y aprender sobre el BL, ya que se trata de un desarrollo reciente.

Diseño/metodología/enfoque: Analizamos el perfil de las publicaciones internacionales sobre aprendizaje combinado en gestión y empresa desde 2001 hasta 2021. Identificamos cuándo, quién, dónde y qué se publicó sobre el tema, destacando los autores y revistas con mayor impacto según el índice h y CiteScore (Scopus), además de explorar la cooperación entre países.

Resultados: El volumen de investigación ha ido en aumento en los últimos veinte años, aunque son pocos los autores, instituciones y revistas de referencia que contribuyen a la consolidación de la materia y los países que realizan más investigación conjunta en redes de coautoría acaparan el mayor volumen de publicaciones, autores y revistas de impacto.

Consecuencias para la investigación, la práctica y la sociedad: Sugerimos una futura agenda de investigación y destacamos las contribuciones realizadas a la formación de directivos y gestores.

Originalidad/valor: Los resultados indican que el número de publicaciones está creciendo, siendo el área de gestión y negocios la que más contribuye, y que los países que producen en coautoría también aportan más publicaciones.

INTRODUCTION

Recently, E-commerce platforms introduced AR based product interfaces for its online customers in various product categories. It includes fashion products, clothing, electronic home appliances, laptops, and mobile phones. These platforms deployed augmented reality technology in their mobile apps for a better consumer experience during shopping. Augmented reality technology places a virtual object in a real environment (Azuma, 1997). Whenever a consumer buys a product online, they face difficulty visualizing it, which means how the product will look in reality (Hilken, et al., 2018). To bridge this gap and create a holistic experience during online purchases, many brands (L’Oréal, Nike, and Ikea, etc.) started using Augmented reality in their apps, (Archer, 2016), (Hilken, et al., 2018) to create a seamless Omni channel experience. Augmented reality as an experiential marketing tool has been studied by many researchers (Haumer, Kolo, & Reiners, 2020), (Bulearca & Tamarjan, 2010), (Hsu, Tsou, & Chen, 2021), (Javornik, 2016), (Wang, Ko, & Wang, 2022). These studies studied the various aspect of augmented reality and its impact on usage intention, purchase intention, attitude towards the technology, technological acceptance, etc. But only a few studies have talked about the effect of augmented reality on brand equity and its dimensions during an online purchase from E-commerce platforms. Previous studies have not covered the many attributes of augmented reality, such as modality, which is considered one of the most crucial factors affecting the hedonic values of the consumer. To fill this gap and to understand the effect of augmented reality as an experiential marketing tool on the brand equity dimension in a more holistic manner. This study has examined how augmented reality can be used as an experiential marketing tool for building brand equity. The study used the S-O-R (stimulus-organism-response model), one of environmental psychology's major concepts. The S-O-R model says that a stimulus affects the person’s affective and cognitive stages, which in turn affects the behavioural stage. Thus the present study has focused on developing a research model to understand the effect of augmented reality attributes on the experiential values of the customer, which are subsequently responsible for brand-related behaviours. To develop the research model, we have taken Interactivity, vividness, modality novelty, and media richness as attributes. These attributes are only covered explicitly in the previous studies, whereas very few studies have covered these attributes holistically. Later we established the relationship between the AR attributes and the consumer’s experiential values, which are responsible for building brand equity.
LITERATURE REVIEW

Augmented Reality as an experiential marketing tool

Experiential marketing is a marketing strategy (Schmitt, 1999) that invites customers to "sense, feel, think, act, and relate with the brand." The primary goal of experiential marketing is to enhance the consumer's buying experience by generating experiential values (Wibisono & Yahya, 2019). With the shift in consumers’ purchasing habits from offline to online due to Covid-19, Consumers nowadays are looking for solutions that can improve their online shopping experience (Hsu, Tsou, & Chen, 2021). Traditional web-based interfaces have various limits regarding informativeness, media richness, media innovation, interaction, vividness, and so on, making it challenging to create a memorable and satisfying experience during the purchasing process (Riar, Korbel, Xi, Zarnekow, & Hamari, 2021). Augmented reality emerged as one of the most promising technologies to bridge this gap.

Augmented Reality is defined as technology that places the computer-generated digital object in a (Azuma, 1997) real-time environment that is both spatial and interactive with the physical world (Milgram, Takemura, Utsumi, & Kishino, 1995). From the experiential marketing perspective, AR can be used as a marketing tool to create a more profound experience and by more simulated product presentation and media richness (McCormick, et al., 2014) as compared to the traditional web-page interfaces, influence the experiential values which in turn stimulate the purchase intention and consumer loyalty both in offline and online purchasing (Kim & Forsythe, 2008). Augmented reality experiential marketing has been adopted by many brands that provide their customers with a more interactive and immersive experience while purchasing the products/services (Bulearca & Tamarjan, 2010). With the rapidly changing E-Commerce market, the business needs to understand that relying only on traditional marketing practices wouldn’t let them gain the competitive space; consumers nowadays are looking for a holistic shopping experience rather than products/services only. In such scenarios where the consumer is hard to reach through traditional marketing practices, marketers need to adopt new technologies to create such an experience, i.e., more interactive and Personal, to deliver a memorable experience (Eyüboğlu, 2011).

Many brands such as L’Oréal, Ikea, Adidas, and Nike have already invested this technology in their marketing strategy in an attempt to provide a more interactive and vivid product experience (Archer, 2016). Following Previous literatures, AR shopping apps stimulate the hedonic and utilitarian benefits through their attributes like interactivity, vividness, and media richness (Arghash & Yuksel, 2022), sense of touch (Gatter, Hüttl-Maack, & Rauschnabel, 2021), that limit the cognitive struggles of the customer in imagining how the
product could look after purchase thus it reduces the risk of wrong purchase (Hilken, Ruyter, Chylinski, Mahr, & Keeling, 2017) Hence from the above studies, we can say that AR emerges as a promising technology as an experiential marketing tool to bridge the gap to a certain extent between the offline and online purchase channels by reducing the risk of wrong purchases through a holistic shopping experience.

**Stimulus-Organism-Response (S-O-R) Model**

The S-O-R model has its roots in environmental psychology, where environmental cues, i.e., “Stimuli”, affect the person's cognitive and affective state, i.e., “organism”, which subsequently influence the approach or avoidance behaviour (Mehrabian & Russell, 1974). The term "stimulus" refers to an object or situation capable of inducing human behaviour (Chan, Cheung, & Lee, 2017). While organism refers to the customer’s emotional, perceptual, feeling, and thinking states, which subsequently influence the response resulting from their cognitive and environmental evaluation (Sherman, Mathur, & Smith, 1997). Recently many researchers (Watson, Alexander, & Salavati, 2020), (Wang, Ko, & Wang, 2022), (Qin, Peak, & Prybutok, 2021), (Nikhashemi, Knight, Nusair, & Liat, 2021) have investigated the effect of AR attributes (interactivity, vividness, informativeness, media richness) as an external stimulus on the consumer’s organism state (perceived ease of use, enjoyment, perceived usefulness, perceived intrusiveness, leading to consumer’s action (brand attitude, usage intention, purchase intention, etc.). However, many researchers have investigated the potential benefits of AR in various aspects of consumer behaviour with the S-O-R model. But brand-related behaviour has been discovered by few studies concerning AR. Thus this study aims to fill the gap in previous literature and find the significant impact of augmented reality attributes on customers’ experiential values, leading to brand-related behaviour.

**Augmented Reality Experiential attributes as stimulus (S)**

AR is an interactive technology that places a computer-generated object into the real world. AR enhances the sensory experience of the real-world object through vision, hearing, and somatosensory (Wang, Ko, & Wang, 2022). Previous research has studied the media features of AR, such as interactivity, vividness, modality, aesthetics, and so on, to comprehend AR's possible effects on consumer action. AR has been around for a long time, but its market awareness has been limited due to a lack of supporting devices until the development of smartphones (Kim & Hyun, 2016). For this study, we are considering two AR attributes, i.e., AR media characteristics and AR Media Quality (Azuma, 1997).
AR Media Characteristics

AR primarily has three media characteristics, Interactivity, vividness, modality, and novelty which have been extensively studied. Firstly, Interactivity can be defined from two perspectives, i.e., Consumer perception or technological feature (Yim, Chu, & Sauer, 2017). (Steuer, 1992) Interactivity is described as a user’s real-time capacity to modify the shape and content of a Mediated environment. From the E-commerce perspective, where there is no direct interaction between the customer and salesperson, Interactivity has been extensively researched from the standpoint of customer-product/service interaction. Interactivity offers customers to customize the design elements, angle of view or distance, etc. (Fiore, Kim, & Lee, 2005). Hence interactivity offers a holistic interactive experience compared to the non-AR traditional webpage interfaces.

Secondly, the capability of technology to provide a sensory-rich mediated environment is referred to as vividness (Steuer, 1992). Vividness creates a distinct mental image of the product by combining the sensory experience of the actual object with the non-sensory experience of an imaginary object (Flavián, Gurrea, & Orús, 2017). Technically, it has two significant aspects, i.e., media quality and dimensions, including text, video, and images) (Kumar, 2022). Vividness is the representational richness of the medium (Steuer, 1992); in the online shopping environment, it is associated with the product’s aesthetics, and display quality (Flavián, Gurrea, & Orús, 2017) Previous studies (Pantano, 2014), (Yim, Chu, & Sauer, 2017) have investigated that the more vivid product visualisation potentially impacts the customer experience in online shopping experiences.

Thirdly, the modality of AR has not been extensively studied. (Javornik, 2016) defined, the Modality of AR refers to the content type provided by the medium. From the AR perspective, modality (number of senses stimulated) is affected by the depth and breadth of the augmentation technique (Watson, Alexander, & Salavati, 2020). (Li, Daugherty, & Biocca, 2002) found that modality is the ability of the medium to present information to the senses. Many studies have found that modality offers product rotation and visually & acoustically richer media. Modality influence the various cognitive, affective, and behavioural responses, such as perceived information (Park, Kim, Funches, & Foxx, 2012), brand attitude, purchase intention ( Kim & Lennon, 2008), perceived credibility (Lin, Lu, & Wu, 2012), consumer response, and e-WOM (Hsieh, Hsieh, & Tang, 2012) (Huang, 2012).

Lastly, Novelty is the situation when a customer perceives something as “new, unique, and different (Massetti, 1996) (Javornik, 2016) AR novelty provides a unique presentation of the Product and allows the consumer to place the 3D product in their environmental spaces.
(Yim, Chu, & Sauer, 2017) extensively studied the potential impact of AR novelty on an individual’s cognitive flow, which subsequently leads to a higher level of arousal. In E-commerce, novelty provides utility to the customer that is driven by the unique content and leads to enhancing the customer shopping experience by helping them to visualise the product (McLean & Wilson, 2019).

**Media Quality (Media Richness)**

The capacity of a communication channel to send a message containing rich information is defined as media richness (Daft & Lengel, 1986). From the E-commerce perspective, it has been found that 3-D technologies like AR and VR provide a more immersive media experience than traditional media platforms in terms of information richness (Vazquez, Dennis, & Zhang, 2017). Media richness lowers the ambiguity of the message and enhances the interpretation and comprehension of the message (Maity, Dass, & Kumar, 2018). The Quality of AR media significantly impacts the brand/App congruence, user satisfaction, hedonic value, and positive brand attitude. It is also an influential factor in (Wang, Ko, & Wang, 2022) (Hilken, et al., 2018) generating more experiential values, which subsequently help the customer in their purchasing actions.

**Experiential values as an organism (O)**

Recent literature investigated several motivations that drive behavioural outcomes toward AR technology. The most prominent factors for the customer’s perceived value that have been looked into are utilitarian values (ease of use, usefulness, informativeness), hedonic (perceived enjoyment, fun, fantasy, playfulness) (Nikhashemi, Knight, Nusair, & Liat, 2021), (Hsu, Tsou, & Chen, 2021), (Rauschnabel, Felix, & Hinsch, 2019). Utilitarian values are the customer's overall judgement of the medium's efficiency and convenience. In contrast, hedonic values are more prone to assessing emotional advantages such as enjoyment, fun, and playfulness. To the best of our knowledge, limited studies have investigated the AR experiential values in the context of E-commerce or their significant influence on brand-related behavioural outcomes (Hilken, Ruyter, Chylinski, Mahr, & Keeling, 2017).

**AR brand-related behaviour as a response (R)**

Previous studies mainly investigated the potential impact of AR on behavioural outcomes in terms of technology acceptance, usage intention, and impulse buying (Hsu, Tsou, & Chen, 2021) (Do, Shih, & Ha, 2020). In contrast, AR has a potential impact on brand-related
behavioural outcomes, such as consumer brand engagement (McLean & Wilson, 2019), Brand equity (Haumer, Kolo, & Reiners, 2020), and attitude toward the brand (Rauschnabel, Felix, & Hinsch, 2019) etc., which subsequently impacts the Purchase intention (Wang, Ko, & Wang, 2022) etc. For this study, we have considered two brand-related behaviour, firstly, consumer brand engagement, (Hollebeek, Glynn, & Brodie, 2014) defined consumer-brand engagement as a construct that incorporates consumer’s cognitive, emotional, and behavioural brand-related activities during the consumer-brand interaction. (McLean & Wilson, 2019), found that AR utilitarian values (perceived usefulness, ease of use) positively impact consumer-brand engagement, which is subsequently responsible for the brand usage intention, WOM factor, and Brand loyalty. Secondly, brand equity, originally Aaker (Aaker, 1992) and Keller (Keller, 1993) model of brand equity, has been followed by previous studies (Bae, Jung, Moorhouse, Suh, & Kwon, 2020), (Haumer, Kolo, & Reiners, 2020). Brand equity is considered a multidimensional construct (Nah, Eschenbrenner, & DeWester, 2011). According to Aaker, the company's marketing practices significantly impact brand equity, and it comprises four major components, i.e., Brand awareness, Brand association, perceived quality, brand loyalty, and other proprietary assets. To develop a conceptual model for this study, we’ll consider only three components brand awareness, brand loyalty, and brand association. Brand awareness and brand association significantly influence the positive consumer response during the purchasing process and customer-brand communication (Keller, 1993). Brand awareness refers to the ability to recall, recognise and connect with the brand by the consumer via name, logo symbol etc. (Aaker, 1992), (Bae, Jung, Moorhouse, Suh, & Kwon, 2020). Generally, brand awareness is increased by understanding the customer needs and wants and then delivering it (Chong, Hong, & Teck, 2022). Whereas, the positive brand association is significant to achieving brand equity because its leads to a positive consumer response (Nah, Eschenbrenner, & DeWester, 2011). Whereas brand loyalty is considered the core of brand equity (Aaker, 1992) defined brand loyalty as consumer preference for a particular brand or a measure of the attachment consumer possesses for the brand. Brand loyalty occurs when consumers perceive that the brand offers a satisfactory product/service and a level of quality (Ishak & Abd. Ghani, 2013) and often takes the desired brand repurchase intention (Suyoto & Tannady, 2022). Simply we can say that when a brand offers a holistic consumer shopping experience while buying the product/service, it is likely to capture high brand loyalty. (Bae, Jung, Moorhouse, Suh, & Kwon, 2020) found that perceived immersion and perceived enjoyment have a significant impact on brand awareness, brand association, and brand loyalty. (Haumer, Kolo, & Reiners, 2020). (Urdea & Constantin, 2021) presented a theoretical framework that depicts how various new-age technologies, including
AR, can benefit brand equity. (Wu & Dong, 2022) found the positive impact of environmental embedding and simulated physical control (two critical features of AR) on Brand association, which subsequently impacted retail brand equity. (Haumer, Kolo, & Reiners, 2020) also studied the positive effect of augmented reality on brand equity from the experiential marketing perspective.

**MATERIAL AND METHODOLOGY**

The objectives of the study are to develop a more comprehensive theoretical foundation on AR experiential marketing applications in e-commerce settings. And build a conceptual model that explains the relationship between augmented reality as an experiential marketing tool, customer’s experiential value, and brand equity in an e-commerce setting.

In order to find relevant studies that could then be comprehensively integrated into a conceptual model, a Systematic literature review produced concerning AR applications as an experiential marketing tool in various industries (tourism, travelling, gaming, retailing and online purchasing etc.) was carried out. This paper investigated the extant literature for conceptual research, wherein the study is conducted by analyzing already present information on augmented reality experiential marketing.

**Data sources**

Initially, a search was conducted on various online research databases i.e., Web of Science and SCOPUS. The research was performed by employing keyword combinations involving “AR” as the title and using words like “experiential marketing,” “e-commerce,” brand equity, “brand dimensions,” “customer experiential values” etc. The search criterion ensured that the scope of the review was broad and did not deviate from the context of AR as an experiential marketing tool in e-commerce. The snowball sampling technique was used repeatedly on the keyword references of the research papers to further look for journal articles covering AR experiential marketing in e-commerce. After several queries for the literature search authors used the final keyword set as follows:

(“Augmented reality experiential marketing” AND AREM OR “AR in e-commerce" AND AR as marketing tool for brands”)

Initial research resulted in a total of 445 literatures retrieved (198 from WOS and 247 from SCOPUS). After eliminating all duplicates and removing papers from regional or international conference proceedings, book chapter reviews, etc. only journal articles and two international conference papers was considered for the review. We further limited our search
by considering paper only in the area of business, management, retailing, consumer experience, technology, and psychology. Finally, after limiting, the search resulted in 292 papers.

**Selection criteria**

- The research paper should recent (from 2010 to 2022);
- The paper investigated the variables of AR as an experiential marketing tool, and
- Research papers should be published in high-quality peer-reviewed journals to ensure the source’s credibility.

**Inclusion at title/abstract/keywords level**

The above selection/inclusion criteria have been applied to the record for the first screening on paper’s title abstract and keywords through manual analysis by the authors. After the first screening, search resulted with the 91 papers which further trimmed down to 77 because of the unavailability of the 14 full-text papers.

**Inclusion at full text analysis**

The retrieved 77 full-text paper has been carefully examined by each author and while reviewing the selected literature author has analyzed and highlighted the theories, frameworks, findings construct, methodologies, and research context. Finally, 24 studies have been included in the table that are highly relevant for the current study to logically integrate the variables to build the proposed conceptual model.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Studies</th>
<th>Title</th>
<th>Journal</th>
<th>Findings</th>
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<tbody>
<tr>
<td>1</td>
<td>(Bulearca &amp; Tamarjan, 2010)</td>
<td>Augmented Reality: A Sustainable Marketing Tool?</td>
<td>Global Business and Management Research</td>
<td>The results shed light on factors influencing the adoption of AR in marketing and retailing.</td>
</tr>
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<td>2</td>
<td>(Eyüboğlu, 2011)</td>
<td>Augmented Reality As An Exciting Online Experience: Is It Really Beneficial For Brands?</td>
<td>International Journal Of Social Sciences And Humanity Studies</td>
<td>People enjoy and find the use of augmented reality applications exciting. They like to participate in that interactive application for enjoyment as well as to try the product.</td>
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<td>3</td>
<td>(Nah, Eschenbrenner, &amp; DeWester, 2011)</td>
<td>Enhancing Brand Equity Through Flow and Telepresence: A Comparison of 2D and 3D Virtual Worlds.</td>
<td>MIS Quarterly</td>
<td>findings suggest that 3D virtual environment have both positive and negative effect on brand equity as compared to 2D environment</td>
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<td>4</td>
<td>(Javornik, 2016)</td>
<td>Augmented reality: Research agenda for studying the impact of its media characteristics on consumer behaviour.</td>
<td>Journal of Retailing and Consumer Services</td>
<td>Proposed a model by studying the various AR features as the marketing tool</td>
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<td>5</td>
<td>(Yim, Chu, &amp; Sauer, 2017)</td>
<td>Is Augmented Reality Technology an Effective Tool for E-commerce? An Interactivity and Vividness Perspective.</td>
<td>Journal of Interactive Marketing</td>
<td>AR offers effective communication advantages by creating more novelty, immersion, joy, and usefulness compared to web-based product presentations, resulting in increased media and purchase intent. bring a positive attitude towards</td>
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<td>6</td>
<td>(Hilken, Ruyter, Chylinski, Mahr, &amp; Keeling, 2017)</td>
<td>Augmenting the eye of the beholder: exploring the strategic potential of augmented reality to enhance online service experiences.</td>
<td>Journal of the Academy of Marketing Science</td>
<td>Findings demonstrate how simulated physical control and environmental embedding improve consumer value perceptions in AR-based service augmentation.</td>
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<td>7</td>
<td>(Rese, Baier, Geyer-Schulz, &amp; Schreiber, 2017)</td>
<td>How augmented reality apps are accepted by consumers: A comparative analysis using scales and opinions</td>
<td>Technological Forecasting and Social Change</td>
<td>Findings show the adoption of AR in marketing and retailing.</td>
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<tr>
<td>9</td>
<td>(McLean &amp; Wilson, 2019)</td>
<td>Shopping in the digital world: Examining customer engagement through augmented reality mobile applications.</td>
<td>Computers in Human Behaviour</td>
<td>experiential values (utilitarian and hedonic values) positively impact the user satisfaction which in turn influence the purchasing intention positively</td>
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<td>10</td>
<td>(Rauschnabel, Felix, &amp; Hinsch, 2019)</td>
<td>Augmented reality marketing: How mobile AR-apps can improve brands through inspiration.</td>
<td>Journal of Retailing and Consumer Services</td>
<td>findings show that effect of consumer inspiration as mediator between the benefits drives from AR and change in brand attitude</td>
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<td>11</td>
<td>(Do, Shih, &amp; Ha, 2020)</td>
<td>Effects of mobile augmented reality apps on impulse buying behavior: An investigation in the tourism field.</td>
<td>Heliyon</td>
<td>The perceived happiness and satisfaction of the user also rises as the utility, convenience, and interactivity of the apps increase, which</td>
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<td>Authors</td>
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<td>12</td>
<td>Bae, Jung, Moorhouse, Suh, &amp; Kwon (2020)</td>
<td>The Influence of Mixed Reality on Satisfaction and Brand Loyalty in Cultural Heritage Attractions: A Brand Equity Perspective.</td>
<td>Sustainability</td>
<td>The findings imply that the features of mixed reality (interactivity, vividness) influence brand awareness, brand association, and brand loyalty in addition to the affective components of visitors' experiences (perceived immersion, perceived enjoyment).</td>
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<tr>
<td>13</td>
<td>Haumer, Kolo, &amp; Reiners (2020)</td>
<td>The Impact of Augmented Reality Experiential Marketing on Brand Equity and Buying Intention</td>
<td>Journal of Brand Strategy</td>
<td>Findings show that AREM positively affect brand equity through brand awareness, brand loyalty, brand association. AREM also have a positive impact on buying intention.</td>
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<tr>
<td>14</td>
<td>Smink, van Reijmersdal, van Noort, &amp; Neijens (2020)</td>
<td>Shopping in Augmented Reality: The Effects of Spatial Presence, Personalization and Intrusiveness on App and Brand Responses.</td>
<td>Journal of Business Research</td>
<td>According to a study, perceived customization of AR apps that add virtual products to the users’ face increase purchase intentions, however, perceived intrusiveness had a negative impact on persuasion.</td>
</tr>
<tr>
<td>15</td>
<td>Watson, Alexander, &amp; Salavati (2020)</td>
<td>The Impact of Experiential Augmented Reality Applications on Fashion Purchase Intention.</td>
<td>International Journal of Retail &amp; Distribution Management</td>
<td>The study highlights the advantages of adopting an experiential augmented reality (AR) retail application (app) to influence purchasing intentions favourably.</td>
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<tr>
<td>16</td>
<td>Hsu, Tsou, &amp; Chen (2021)</td>
<td>“Yes, we do. Why not use augmented reality?” Customer Responses to Experiential Presentations of AR-Based Applications</td>
<td>Journal of Retailing and Consumer Services</td>
<td>Findings show that the hedonic value is positively influenced by of an experiential AR app more than utilitarian value and that only hedonic value positively affects users’ continued usage intention.</td>
</tr>
<tr>
<td>17</td>
<td>Gatter, Hüttl-Maack, &amp; Rauschnabel (2021)</td>
<td>Can Augmented Reality Satisfy Consumers' Need for Touch?</td>
<td>Psychology &amp; Marketing</td>
<td>The results show that AR features can imitate touchable product characteristics, which adds to the literature on AR marketing and online retailing.</td>
</tr>
<tr>
<td>18</td>
<td>Nikhashemi, Knight, Nusair, &amp; Liat (2021)</td>
<td>Augmented Reality in Smart Retailing: A Symmetric Approach to Continuous Intention to Use Retail Brands’ Mobile AR Apps.</td>
<td>Journal of Retailing and Consumer Services</td>
<td>Customer benefit perception is influenced by AR features, which in turn improves consumer engagement and psychological inspiration and, ultimately, leads to continued intention to use AR apps and...</td>
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<td>Page</td>
<td>Authors</td>
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<tr>
<td>19</td>
<td>(Riar, Korbel, Xi, Zarnekow, &amp; Hamari, 2021)</td>
<td>The Use of Augmented Reality in Retail: A Review of Literature</td>
<td>Proceedings of the 54th Hawaii International Conference on System Sciences</td>
<td>In terms of evoking both utilitarian and hedonistic experiences, augmented reality (AR) is a technology with considerable promise for in-store and remote (online) commerce.</td>
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<td>20</td>
<td>(Qin, Peak, &amp; Prybutok, 2021)</td>
<td>A virtual market in your pocket: How does mobile augmented reality (MAR) influence consumer decision making?</td>
<td>Journal of Retailing and Consumer Services</td>
<td>Results show a substantial relationship between the use of MAR apps and perceptions of gratification and informativeness.</td>
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<td>21</td>
<td>(Arghashi &amp; Yuksel, 2022)</td>
<td>Interactivity, Inspiration, and Perceived Usefulness! How retailers’ AR-apps improve consumer engagement through flow.</td>
<td>Journal of Retailing and Consumer Services</td>
<td>This study shows that interactivity and inspiration are significant factors for the consumer's flow experience. Flow experience can directly generate the favourable attitude and trust for AR app which in turn triggers the consumer engagement and then enhance the brand uses intention and brand attitude.</td>
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<td>22</td>
<td>(Kumar, 2022)</td>
<td>Augmented reality in online retailing: a systematic review and research agenda.</td>
<td>International Journal of Retail &amp; Distribution Management</td>
<td>Several AR features have a considerable impact on utilitarian, hedonic, perceived risk, and experiential value, which leads to a favourable attitude, support for decision-making, and behavioural intentions.</td>
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<td>23</td>
<td>(Wang, Ko, &amp; Wang, 2022)</td>
<td>Augmented reality (AR) app use in the beauty product industry and consumer purchase intention.</td>
<td>Asia Pacific Journal of Marketing and Logistics</td>
<td>AR provides playfulness through vividness, reality and aesthetics in addition to that AR impacts the exploratory behaviour which in turn directly affect the purchasing intention.</td>
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<tr>
<td>24</td>
<td>(Wu &amp; Dong, 2022)</td>
<td>Impact of Augmented Reality Characteristics on Retail Brand Equity.</td>
<td>Proceedings of the 4th International Seminar on Education Research and Social Science (ISERSS 2021)</td>
<td>Two AR attributes, environment embedding (EE) and simulated physical control (SPC) can influence retail brand equity through brand connections.</td>
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Source: Prepared by authors (2022)
PROPOSING CONCEPTUAL MODEL

**AR features and perceived experiential values**

Augmented reality has numerous features like interactivity, hyper textually, modality, media novelty, media richness, vividness etc., which significantly impact the experiential value. From the discussed literature review (Fiore, Kim, & Lee, 2005), (Steuer, 1992), interactivity bridges the gap between offline salesperson-customer and online purchasing. Interaction by allowing the customer a more interactive product experience in terms of angle of view, distance, customisation etc., thus enhances the utilitarian value (perceived usefulness) (Nikhashemi, Knight, Nusair, & Liat, 2021). Interactivity not only offers utilitarian values but also delights into the hedonic values of customers (Hsu, Tsou, & Chen, 2021). Whereas vividness offers (Yim, Chu, & Sauer, 2017), (Pantano, 2014) a better customer experience through better display quality, product aesthetics (Flavián, Gurrea, & Orús, 2017) and media representational richness (Steuer, 1992). Following the discussed literature, vividness offers an immersive experience (Yim, Chu, & Sauer, 2017) and perceived enjoyment (Bae, Jung, Moorhouse, Suh, & Kwon, 2020), which in turn affects the cognitive, utilitarian and hedonic emotions (Rauschnabel, Felix, & Hinsch, 2019).

![Figure 1: A proposed research model for studying augmented reality as an experiential marketing tool](source: Prepared by authors (2022))

Enjoyment (Bae, Jung, Moorhouse, Suh, & Kwon, 2020), which in turn affects the cognitive, utilitarian and hedonic emotions (Rauschnabel, Felix, & Hinsch, 2019). Media novelty (McLean & Wilson, 2019) studied that AR media novelty positively affects the consumer shopping experience during online purchases. (Yim, Chu, & Sauer, 2017) found the potential impact of AR media novelty on the individual’s cognitive flow, which is responsible for the mental arousal towards the product/brand. Hence the studies pioneered by many researchers on the relationship between augmented reality attributes and perceived value in
many contexts (technological, Retail, Online purchase, Brand’s perspective, product’s perspective etc.). We concluded that during the online purchase from e-commerce platforms, augmented reality technology plays a crucial role in the experiential marketing strategy of a brand/company; hence AR attributes significantly impact the customer’s perceived experiential values.

*Perceived values and consumer-brand engagement, brand awareness, brand association & brand loyalty*

From the discussed literature review, many studies have supported the relationship between perceived value and brand-related behaviour. (McLean & Wilson, 2019) studied the relationship between AR utilitarian and hedonic values and consumer brand engagement. (Bae, Jung, Moorhouse, Suh, & Kwon, 2020) studied the positive effect of hedonic values of AR (perceived immersion, perceived enjoyment) on brand association, brand loyalty and brand awareness, which subsequently impacted the consumer's purchase intention. From the (Haumer, Kolo, & Reiners, 2020) study, we'll conclude that augmented reality is an emerging technology which is leveraged by the marketing practices of many brands/organisations and enables them to capture brand equity.

**RESULTS AND DISCUSSION**

Referring to the Literature review, we find that AR is an emerging technology that influences the customer's experiential values and then their emotional and behavioural responses. This study has some significant contributions. *Firstly*, available studies on the relative impact of AR on customer experience in the marketing domain are still limited. In addition, to our knowledge, studies related to AR experience in online purchasing are even more limited. Thus, the proposed framework reviews augmented reality as an experiential marketing tool in the e-commerce context. *Secondly*, most of the previous studies have discussed the influence of AR features on customer buying intention (Haumer, Kolo, & Reiners, 2020) and motivation to use AR apps (Yim, Chu, & Sauer, 2017). Still, few studies specifically examined its impact on the various dimensions of Brand equity. *Thirdly*, this study highlighted the importance of customer experience in AR technology engagement from the psychological perspective (S-O-R framework). *Fourthly*, the modality has not been extensively studied, which is very significant for emotional and behavioural responses. This calls the scholars to study modality and its impact on the customer experience. It is also to be notes that some related studies have discussed the application of AR in education and gaming context (Prasad KDV et
al, 2022) (Flavián, Gurrea, & Orús, 2017), (Hilken, et al., 2018). Thus, by testing the proposed research model, scholars can understand why consumer experience plays a vital role in technology-enabled marketing. The current work contributes to the existing literature with a comprehensive proposed research framework to understand customer emotions, values and behaviours during online purchases in the AR technology environment, impacting the brand equity dimensions from the E-commerce context.

Augmented reality is considered to be a very innovative and rapidly emerging technology. Incorporating this technology into the e-commerce business activity provides a competitive capability to the firm because customers face uncertainty about the product listed on the website/app during online purchases. Firms can provide a more immersive experience by incorporating AR into their business to satisfy their customers, which is responsible for building brand equity. Hence, there is a call for scholars to study the impact of augmented reality on customers’ experiential value and how it can influence brand-related responses. By testing the proposed research model, scholars can understand the potential impact of the AR feature (interactivity, vividness, modality, novelty, and media quality) on the customer experiential value (utilitarian and functional values) and various dimensions of brand equity in the short and long term. Findings from testing the model will also assist the e-commerce firms in their decision-making process about adopting this technology. E-commerce firms currently using AR apps in their business will also leverage the findings of this study to improve the pain points for a better customer experience. The results will assist marketers in understanding the impact of AR experiential marketing on customer experience and its relative impact on firms’ brand equity. Thus we can say that the proposed model will contribute to the available literature and assist e-commerce firms in their decision-making process on experiential marketing activities.

CONCLUSION

The theoretical foundation in this study has established the relationship between the various dimension of augmented reality, such as interactivity, vividness, modality, media novelty, and media richness. The model also developed the relationship between the AR attributes and consumer affective and behavioural states during online purchases. Reviewed literature discussed how various AR attributes as a stimulus could affect the consumer’s organism state, i.e., experiential values (hedonic, utilitarian), which again affect the brand equity of the products or services during online purchases. In this study, the S-O-R model was used to develop a research model that can be tested in future studies in the e-commerce setting.
This model will help understand the direct or indirect effect of augmented reality (stimulus) as an experiential marketing tool on the experiential values (organism), which is a critical factor for the customer's overall experience in driving the desired brand-related behaviour. The research model (figure 1) depicts the relationship between the AR media characteristics of interactivity, vividness, modality, novelty, and media quality (media richness) as the environmental stimulus. The customer's experiential value, i.e., hedonic or utilitarian values as the organism. Brand association, Brand Awareness, Consumer-brand engagement and brand loyalty as the behaviour stage. Later the interplay of these variables was established to understand the relationship among them.

This study aims to build a model for studying the application of AR technology as an experiential marketing tool on customer purchasing experience and brand equity in the e-commerce setting. This study will provide a holistic understanding of this technology as a marketing tool so businesses can decide on the suitability of AR for their business. The results after testing the model will provide insights into AR's direct and indirect impact on customer experiential value long-term and short-term brand equity. The results will also guide the businesses currently using AR technology for preparing and modifying marketing strategies for implementing AR. Hence, this study has many practical applications that will assist the industry in understanding this technology as an experiential marketing tool and how they can leverage it for their businesses.

While this research provides a significant contribution, it also has some limitations. The first limitation of this paper is its theoretical nature. Second, future researchers can include the 360-degree view in the proposed model to understand and empirically test it in the context of technology marketing. Third, due to limited literature, this paper has excluded some AR features like spatial presence (Smink, van Reijmersdal, van Noort, & Neijens, 2020) and the need for touch (Gatter, Hüttl-Maack, & Rauschnabel, 2021), has not been extensively studied by the researcher under the purview of experiential marketing. These features can guide the researcher to test the effectiveness of AR in marketing practices empirically. The proposed framework is the first stage of building the relationship between augmented reality experiential marketing and brand equity. The proposed model would guide future studies by testing it empirically in the e-commerce context. Last but not least, the demographic variable can also be included in the proposed model for future studies for more holistic effects of the model.
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A Conceptual Model for Building the Relationship Between Augmented Reality, Experiential Marketing & Brand Equity


