

# **Influence of Virtual Reality on Consumer Experiences**

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## **Abstract**

This study explores consumer perceptions of virtual reality (VR) in marketing, aiming to understand how immersive technology impacts engagement and brand perception. As VR continues to evolve and integrate into various marketing strategies, it becomes crucial to examine its effectiveness and the factors influencing consumer attitudes. Through a detailed thematic analysis, this research identifies key themes such as familiarity with VR technology, immersion and engagement, technical quality, accessibility, personalization, storytelling, social interaction, purchase intentions, and brand perception. The findings reveal that familiarity with VR enhances enthusiasm and comfort, leading to more positive attitudes towards VR marketing. The immersive and multi-sensory nature of VR provides a significant advantage over traditional advertising methods, fostering stronger emotional connections and increasing memorability. However, the quality of the VR experience is critical; high-quality graphics and seamless interactions are essential for maintaining positive consumer perceptions. Technical issues, such as lag and motion sickness, can negatively impact the experience, especially for those less acquainted with VR technology. Accessibility remains a challenge, with limited access to VR headsets restricting the reach of VR marketing campaigns. Personalization of VR content is highly valued, though it must be balanced with ethical considerations related to data privacy. The power of storytelling in VR enhances engagement by allowing consumers to actively participate in narratives. Social interaction within VR experiences adds an extra layer of enjoyment. The study also highlights the practical applications of VR marketing in high-involvement sectors and underscores the need for continuous innovation and consumer feedback to maximize the technology's impact. Overall, VR holds significant potential to transform marketing practices by offering immersive, engaging, and memorable experiences that deepen consumer connections and drive positive outcomes.

**Keywords:** Virtual Reality; Marketing; Consumer Perceptions; Immersive Technology; Engagement; Personalization; Brand

## **Introduction**

Working in the IT industry for many years has made me consider how technologies are helping to improve the processes of businesses. Some say that technology implementation isn't worth it, but I believe that we can incorporate the potential of technology into any existing project. That's why it's so important to see more use cases of the implementation of trending technologies like artificial intelligence (AI), machine learning (ML), augmented reality (AR) and virtual reality (VR).

During the pandemic, most of us couldn't afford to travel or visit tourist sites, exhibitions or other recreational activities. But the ones who were not afraid to implement new technologies gained the

advantage and created new business models for their existing services and products. The most popular use of VR in tourism was dedicated to improving experiences at tourist sites and attractions. Many museums created opportunities to visit their exhibitions via their website and 3-D technologies. This experience helped us to blur the boundaries between the digital and physical worlds. And at that period in time, it was a necessity for many people. As time is passing, we see more and more use cases of AR and VR in many different industries.

The purpose of the study is to investigate the effects of interactivity and vividness on perceived usefulness and perceived enjoyment and their consequent impacts on consumer behavioral responses in a retail furniture VR store context. Considering the lack of VR empirical research, the indirect effect of interactivity and vividness on perceived usefulness and perceived enjoyment through telepresence and the moderating effect of consumer previous experience with VR are also included.

Virtual reality (VR) offers users a realistic and interactive computer-generated environment that provides them with unique experiences in various settings, including marketing. Technological development of VR continues its relentless journey towards heightened immersion and realism, incorporating a multitude of lifelike elements, including the elusive sense of smell, which had previously remained beyond the realm of computer imitation (Liu et al., 2023). VR is anticipated to occupy a pivotal position in the lives of individuals, playing a profound role in diverse aspects of human existence (Hamad & Jia, 2022). As these advancements unfold, the significance of VR as an influential medium is set to expand in shaping the future of human experiences. A report by McKinsey (2022) has emphasized the transformative capacity of the metaverse and has projected a potential value generation of \$5 trillion by the year 2030. This estimation highlights the extensive economic opportunities of VR, implying it has the potential to reshape industries, establish novel markets, and revolutionize the dynamics of technology, commerce, and social interactions. The ever-evolving technological landscape and changing consumer preferences are therefore making it increasingly crucial for businesses to invest in digital technologies and look for ways to enhance virtual experiences. While consumers seek to access products and services from the comfort of their homes, retailers seek to identify ways to remain competitive and thrive in the emerging technological environment. This includes targeted investments in online shopping platforms, including immersive virtual reality (iVR) technologies which can address some of the limitations of e-commerce and physical retail establishments (Martínez-Navarro et al., 2019). The strategic choice to concentrate on iVR in retail is underscored by its numerous competitive advantages. iVR elevates consumer engagement, a critical element that strongly correlates with heightened sales and customer loyalty (Lee, 2020). Furthermore, it enhances product visualization by providing consumers with a three-dimensional perspective enabling an understanding of product features more accurately, especially for those items where fit and functionality are essential (Wölfel & Reinhardt, 2019). Furthermore, iVR allows for the personalization of shopping experiences by enabling retailers to tailor their product interactions to individual consumer preferences. This capability not only improves customer satisfaction but also provides retailers with deep insights, essential for refining marketing strategies and optimizing product selections (Papagiannidis et al., 2017). Moreover, iVR introduces innovative retail formats, such as virtual showrooms and interactive product demonstrations, which can significantly differentiate a retailer from its competitors (Meißner et al., 2020; Yoon et al., 2015; Zhang & Wen, 2023). These features highlight iVR's potential in retail, positioning it as a strategic priority in this research study. By providing consumers with an immersive and interactive shopping experience, iVR can offer a unique value proposition that combines the convenience of e-commerce with the sensory and emotional appeal of physical retail.

Virtual reality (VR) is a computer-generated simulation where users can physically interact within an artificially created 3D environment using electronic devices (headset and gloves/hand-operated consoles fitted with sensors). A user's physical presence is digitised, giving the feeling of experiencing this virtual world in a physical manner. Supported by both visual and auditory cues designed to enhance realism, VR allows you to perceive and function in a simulated reality much like you would in the real world. VR entirely replaces reality with a digital simulation designed to create a transformative experience.

Virtual and augmented reality are technologies most often associated with gaming. But more recently, they've been used in the realm of marketing to transform the consumer experience in new and profound ways. From IKEA using AR to transpose furniture into your actual living room to organizing branded experiences in the metaverse using VR, the potential for these technologies is significant.

Here are so many ways to use AR for marketing, but here are just a few of the ideas that are making a major impact in the market today:

1. **Enhanced Product Visualization:** AR technology lets customers visualize products in their real environment before purchasing. Whether placing furniture in a room or trying on clothing virtually, AR enhances consumer confidence in purchase decisions, leading to higher conversion rates.
2. **Interactive User Manuals:** Augmented reality can transform traditional user manuals into interactive guides. By simply pointing their device at a product, customers can see setup instructions and usage tips in real time, greatly improving the user experience and reducing the complexity of product assembly.
3. **Location-Based Promotions:** Utilize AR for geotargeted advertisements, offering promotions when customers are near store. This increases foot traffic and personalizes the shopping experience by providing timely offers relevant to the customer's location and preferences.
4. **Virtual Try-Ons:** AR allows consumers to try products virtually, from cosmetics to eyewear. This digital marketing augmented reality application enhances the shopping experience and empowers customers to make informed choices without the physical constraints of traditional shopping.
5. **Gamified Marketing Campaigns:** Incorporate AR into gamified marketing efforts to create engaging and interactive brand experiences. Through AR games, customers can interact with your brand in entertaining and memorable ways, increasing brand loyalty and advocacy.

### How virtual reality works

Virtual Reality (VR) is currently one of the most promising technologies in terms of business innovation (Goldman Sachs, 2016; Farshid et al., 2018; Hagl and Duane, 2020). Various well-known brands have already jumped on the bandwagon creating virtual brand experiences (Adams, 2016), allowing them to submerge rather passive consumers into an active brand experience.

When considering the customer journey, VR can be applied in the "pre-purchase stage," which covers need recognition and the store/product selection process (e.g., Flavian et al., 2021), the "purchase stage," which involves the actual purchase process (customer choice, ordering and payment in a VR store, cf. Loureiro et al., 2021) and the "post-purchase stage" which concerns consumption of and engagement with the product/brand and after sales service (cf. Liu et al., 2019; Barbosa Escobar et al., 2021).

#### 1. Bridging the gap between digital and physical purchasing experiences

Virtual reality can, in effect bridge the gap between the digital and remote space and more traditional ways of buying products and services. Although VR is a digital technology that a customer can access from the convenience of their own front rooms whilst replicating a traditional purchasing experience.

A great example is JLL Residential, a leading global real estate company that uses VR headsets to help potential customers digitally tour properties. Properties can be scrutinised remotely, meaning that potential buyers can explore in as much detail as if they were in the physical room, but from a time and in a space that's convenient for them. Although it is unlikely to replace all physical viewings, it does give buyers the chance to filter options more effectively than simply viewing 2D photos online. This means that the time and expense of travelling to physical viewings can be significantly reduced.

## **2. Streamlining purchasing decision making**

As customers rate speed and convenience as important factors in a good customer experience, the power of VR can be harnessed to make informed decisions and streamline the purchasing processes. In effect, virtual reality offers customers the chance to try before they buy.

Virtual reality is brilliant for showcasing high value products, bringing a customer's customized version to life before their eyes to help them make informed decisions. Car manufacturers such as Audi has embraced VR technology to help broaden the customer experience both online and in showrooms. This gives customers the chance to bring their personalized versions of their own future vehicles to digital life, view it in detail and take it on a virtual test drive in a way that isn't possible in either the digital or physical worlds.

## **3. Building brand loyalty through emotional and memorable connections**

A great experience makes your customers feel valued and connected to your brand. As consumer behaviors are changing within increasingly competitive markets, expectations around your brand's core values and your products and services are amplifying. Connecting with customers on an emotional level is a central part of any customer experience strategy in order to build positive relationships and brand loyalty – and virtual reality can deliver just that.

By its very nature, virtual reality draws on human experiences and can play on our emotions. A study by VR experts at Stanford University found that VR can help make people more compassionate compared to other media. Brands are increasingly experimenting with virtual reality customer experiences that reflect their brand identity and make deep and meaningful connections with customers. For example, The North Face's immersive experience gave shoppers the chance to virtually explore Nepal's landscape of ancient monuments, perfectly aligning the brand with their customers' love of the great outdoors.

## **4. Employee training**

As PwC's 'Experience is everything: Here's how to get it right' Report highlights, while digital technologies are great in enhancing customer experiences, human interactions continue to be most highly valued by customers.

Virtual reality can help employees to develop and practice their customer service skills, and in turn, improve the overall customer experiences. Indeed, companies are increasingly recognizing the positive impact of VR training employees – and seeing the tangible results. In a recent survey by the Harvard Business Review, leading tax preparation company H&R Block reported that when it introduced a VR training programme as part of its onboarding programme for call centre staff, it helped employees to improve their skills in handling difficult conversations. Crucially, the company saw a 50% decrease in dissatisfied customers and a 9.9% decrease in customer handling times.

## **5. Data collection to improve products and customer service**

Gaining insights into customer behaviours is crucial for all brands looking to tailor products and services to meet the needs of their customers. For example, during interactive experiences, VR hardware can monitor a user's actions, from choices that they make through to how they act and react during an

experience, including biometric data such as eye tracking. This data can inform brands on customer preferences, as well as common issues that customers may face. This can help brands to make informed decisions on potential changes to improve products and services, proactively working to enhance the customer experience

## Conclusion

Virtual and augmented reality technologies are transforming retail and consumer experiences by enhancing user satisfaction, improving decision-making, and aligning online and offline shopping experiences. Retailers must strategically implement these technologies to maximize their benefits and address any potential negative effects. As AR and VR continue to evolve, their role in shaping the future of retail will become increasingly significant.

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