Chapter 6
From Interaction to Immersion:
Exploring AR and VR's Transformative Role in Consumer Engagement

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ABSTRACT

In recent times, marketers have started using augmented and virtual reality (AR-VR) to offer unique customer experiences and enhance engagement. While the use of AR-VR in marketing has become the 'new normal', businesses are still struggling to use these tools to effectively attract and retain customers. Building on the existing literature, this chapter argues that overcoming these challenges requires understanding how to seamlessly integrate these tools throughout the customer journey. This will help businesses in curating AR-VR-enabled spaces that are aligned with customers' experiential preferences at different stages. In this chapter, the authors first summarize the impact of AR-VR technologies on customer engagement. Secondly, the challenges related to integrating these immersive technologies are highlighted. The authors then integrate the literature on AR-VR technologies and the customer journey and propose a framework and encourage academicians and practitioners

to focus more on the different stages of the customer journey while designing AR-VR enabled marketing strategies.

INTRODUCTION

In recent times, augmented reality (AR) and virtual reality (VR) technologies have increasingly impacted consumer behavior with personalized product visualization, enhanced engagement, and experiences (de Amorim et al., 2022; Jayawardena et al., 2023). These immersive technologies are enabling businesses to create highly personalized and unique life-like experiences that span across industries like retail (Arghashi & Yuksel, 2022; Papagiannis, 2020), tourism (McIntosh & Siggs, 2005; Yersüren & Özel, 2024), museums (Lee et al., 2020), automotive (Flavián et al., 2019), and so on. Furthermore, these technologies are also changing the events and entertainment industry, where AR-VR technologies provide customers immersive, enjoyable, playful, and interactive experiences (Kim et al., 2018; Villagran-Vizcarra et al., 2023). Seeing the significant impact of AR-VR technologies, businesses have started using different mediums and tools such as apps, VR headsets, simulations, holograms, and alike to create immersive, enjoyable, playful, and interactive experiences (Errens, 2016; Papagiannis, 2020; Yersüren & Özel, 2024).

Given the broad range of applications in marketing, particularly in engaging customers and influencing purchase decisions, these immersive tools have gained significant attention from marketing researchers and practitioners alike (Jessen et al., 2020; Qin et al., 2021; Scholz & Smith, 2016). Specifically, studies suggest that these AR-VR technologies facilitate businesses by providing (a) personalized and customized experiences, (b) brand differentiation, and (d) data-driven insights (El Abed et al., 2023; Xu et al., 2024). Furthermore, these tools not only change the traditional in-store shopping arrangement but also complement it not just by making shopping more convenient (Yim et al., 2017) but also by enhancing the shopping experience, creating an overall playful and enjoyable shopping experience (Jessen et al., 2020; Qin et al., 2021; Scholz & Smith, 2016).

While extensive research has highlighted AR-VR tools' significant role in engaging customers, a growing number of studies have pointed out the limited impact of these tools (Flavián et al., 2019; Rejeb et al., 2023). A recent study by Nikhashemi et al. (2021) suggests that while these immersive technologies positively influence consumers, AR interactivity is limited to hedonic rather than utilitarian benefits. Another point to consider is that once the consumer has experienced the product or service, it may so happen that they no longer want to consume the actual product/ service (Deng et al., 2019). Further, while these immersive technologies provide consumers with personalization and increase customer loyalty, excessive personal-

ization could limit the choices and options (Davis & Aslam, 2024). Furthermore, quality plays a very critical role when it comes to AR-VR, as the consumer experience depends on the seamless immersion and interaction experience (Hsiao et al., 2024; Nawres et al., 2024; Yersüren & Özel, 2024). Consequently, a persistent challenge remains when realizing and conceptualizing immersive technologies in the marketing context, especially when engaging the customers. Based on our review of the literature, we argue that one of the key reasons behind the limited impact of AR-VR tools is the lack of efforts to actively align these tools to different stages of the customer journey. Previous studies have indicated that marketers should go beyond merely incorporating AR-VR tools in consumer engagement and focus on how they can effectively embed these tools to create unique, appealing experiences in each stage of the customer journey (Fan et al., 2020; Javornik, 2006; Ogunjimi et al., 2021). Romano et al. (2021), for example, found that AR-VR technology can connect consumers with the brand and expand their options, at the point of purchase, these technologies can add the element of fun, and post-purchase they influence people's confidence in the purchase. Conversely, Hollebeek et al. (2020) focus on using the computer-generated environment to engage customers throughout the consumer journey. Furthermore, Lemon & Verhoef (2016) stressed the need to understand these dynamics (AR-VR tools and consumer journey) from both the firm's and customers' (Lemon & Verhoef, 2016). While these studies have underscored the importance of focusing on the customer journey, most of them just scratched the surface by focusing only on three broad stages such as before purchase, at the point of purchase, and post-purchase, leaving room for further exploration of all the stages and how AR-VR tools fit into each stage (Lemon & Verhoef, 2016; Romano, Sands, & Pallant, 2021). Furthermore, these studies exhibit limitations in their narrow delineation of the customer journey stages and failure to delve deeper into the differential strategic approaches for integrating these tools into each customer journey stage.

Therefore, in this book chapter, our focus is on the lateral, wherein we integrate and examine the impact of these immersive (AR-VR) technologies on the customer journey, i.e., Awareness, Consideration, Decision, Retention, and Advocacy. We found that strategically aligning AR-VR technologies for each aspect of the customer journey builds a holistic view of the immersive technology implementation and positively impacts consumer engagement. From a managerial perspective, looking at AR-VR technology implementation, keeping in mind the specific aspect of the customer journey will facilitate in deciding on specific tools and, subsequently, altering and managing them. Overall, this book chapter attempts a holistic conceptualization while implementing or improving (existing) AR-VR technologies and the ability to view these immersive technologies specifically.

The rest of the chapter is structured as follows: In the following section, we summarize the impact of AR-VR technologies on consumer engagement, i.e., consumer experiences and expectations. The aim is to examine how these immersive technologies impact consumer engagement. Thereafter, drawing on the existing literature, we highlight various challenges (regarding technology, consumers, and actual products) in achieving positive consumer engagement. Next, we discuss that these challenges stem from the scattered literature and the lack of alignment of AR-VR technologies with the customer journey (i.e., awareness, consideration, decision, retention, and advocacy). We then propose an integrative framework that aligns AR-VR technologies with the different stages/aspects of the customer journey. We conclude with theoretical and managerial implications and a few potential directions for future research attempts.

ROLE OF AR-VR (IMMERSIVE) TECHNOLOGIES IN CUSTOMER ENGAGEMENT

Immersive technologies such as AR-VR are used in various sectors/contexts in retail, fashion, technology, and hospitals (Hsiao et al., 2024; Nawres et al., 2024; Papagiannis, 2020; Yersüren & Özel, 2024). In this section, we will explore the intricacies of these immersive technologies in building customer engagement, i.e., we will focus on both the consumer experience as well as consumer expectation that will lead to the actual purchase. Research indicates that AI-enabled immersive technologies facilitate personalized and customized experiences, brand differentiation, and data-driven insights (Xu et al., 2024). For example, by using AR applications, consumers want to have hands-on or virtual try-on facilities. These facilities, in turn, increase the believability or credibility of the products (Nawres et al., 2024) and encourage customers to purchase online (Yaoyuneyong et al., 2014). Additionally, VR tools generate realistic experiences in a 3D environment by enabling interactions with actual and simulated content, which offers consumers more than aesthetics, entertainment, and information; it provides an escape (Yersüren & Özel, 2024).

On the other hand, some studies highlight the limitations of these technologies, particularly in failing to replicate the tangible experience and tactile sensation ("actual feel") of physical products (Aslam & Davis, 2024). Additionally, there is a constant challenge of realizing and conceptualizing AI-enabled immersive technologies in various aspects of marketing. Consequently, it is crucial to critically reflect on the current state of research on AI-enabled immersive technologies and assess the promised benefits with the actual understanding and application of these technologies. In doing so, we will reflect on the critical areas where AR-VR

technologies make an impact, such as customer experience, customer expectations, and overall customer journey.

Customer Experience

Organizations apply AR-VR technology to enhance both aspects of the consumer experience by integrating system-generated content with the physical environment. The emphasis is on interactivity and multidimensionality (Farshid et al., 2018; Hoffman & Novak, 2018). Sung et al. (2021) used the SOR (stimulus, organism, and response) framework and concluded that "high AI quality can lead to increased consumer engagement and, in turn, positive behavioral intentions in a technology-enhanced environment" (p. 8, Errens, 2016). Further, businesses using AR-VR tools to create immersive, enjoyable, playful, and interactive experiences, such as apps, VR headsets, simulations, holograms, and so on (Errens, 2016; Papagiannis, 2020; Yersüren & Özel, 2024). For example, holograms can be used in multiple ways–in front of stores to create interactive displays, or consumers can use them virtually to try on various products (Errens, 2016). Furthermore, scholars have found that these tools help build sensory experiences by creating positive affection and cognitive assimilation (telepresence, novelty, vividness, real congruence, and modality richness) (Xu et al., 2024).

The application of these tools has already gone beyond our imagination and has much potential to disrupt the field of identifying, understanding, and engaging consumers (Xu et al., 2024). For example, these tools help identify potential consumers by tracking facial expressions as well as head, eye, or hand movements, and businesses can understand the preferences of the customers and then cater to their specific needs or personalize the experiences for the customers (Bigne et al., 2016; Liebers et al., 2024). Brands like IKEA, Gucci, Audi, and Volvo have adopted AR-VR technologies to improve the customer experience (Papagiannis, 2020; Romano et al., 2021). These brands are increasingly trying to create AR-VR-enabled spaces where customers can fully explore the products, try them virtually, and often co-design them. For example, in the case of IKEA, they encourage the customers to use AR-VR tools to customize and co-design the furniture to better align their design to their specific preferences and needs, which, in turn, helps them engage the customers. Such efforts make the *purchasing experience more interactive*, where customers can have a more detailed view of the products, which helps them make informed decisions. Such cutting-edge tools have also transformed the service sector by providing means through which businesses can provide a unique set of experiences, be it offering realistic destination experiences or providing the thrilling experience of live sports (Yersüren & Özel, 2024), leading to customer satisfaction (Hinsch et al., 2020).

Moreover, these tools make the overall experience of purchasing products more playful and fun than the traditional retail outlet-based shopping experience (Javornik, 2016; McLean & Wilson, 2019; Nikhashemi et al., 2021). For example, in a recent study, Arghashi and Yuksel (2022) have shown how AR apps help customers feel more confident about the shoes and the brand, partly due to these apps' immersive and engaging experience. Beyond the shopping experience, using VR tools also helps make marketing communications more effective as they go beyond information and visual elements by demonstrating the products and making it a two-way interactive process (Grudzewski et al., 2018; Hollebeek et al., 2020). When used strategically, these tools can make promotional campaigns and advertisements more impactful (Jayawardena et al., 2023; Leung et al., 2020).

By creating unique experiences, AR-VR technologies not only help businesses, brands, and retail outlets to serve their consumers better or immerse their customers in the range of products that they have and therefore attract customers to their retail outlets but also help them in creating differentiated brand image (van Esch et al., 2019; Jayawardena et al., 2023a). Such differentiated brand image also helps encourage customers to pay premium product prices. Brand images created by AR-VR tools help businesses to create a high-end or premium brand image and, therefore, increase the willingness to purchase and willingness to pay from the side of the customers, and more and more customers become ready to pay a premium price for the products (Nikhashemi et al., 2021; Jayawardena et al., 2023b). Beyond creating a unique and engaging experience, AR-VR tools also help businesses build long-term intimate relationships with customers, which can lead to customer satisfaction and loyalty (Pangarkar et al., 2022; Scholz & Duffy, 2018; Vaidyanathan & Henningsson, 2023).

Another aspect of consumer experience is their *ability to personalize*. Interacting with a product virtually allows consumers to customize it while enriching their shopping experience and, ultimately, their decision to buy (Daassi & Debbabi, 2021; Xu et al., 2024). Further, some studies have emphasized *why* these immersive technologies positively impact purchase decisions. Scholz and Duffy's (2018) study suggests that experiences consumers undergo through AR become integrated into their 'augmented self,' strengthening their relationship with the brand. Further, AR curates virtual experiences, instilling consumer confidence while purchasing (Fan et al., 2020; Nawres et al., 2024). With AR-VR technologies, brands can enhance their connection with consumers as they engage with them, enabling them to visualize themselves and assess their compatibility (McLean & Wilson, 2019; Scholz & Duffy, 2018). As a result, consumers create this compatibility through self-defined parameters, reinforcing the brand's authenticity (Al-Imamy & Nadeem, 2022; Bastide, 2017).

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Customer Expectation

Customer expectation is customers' response during or after engaging with the product/ service through AR-VR technologies. For example, it depends on the ability of these immersive technologies to raise expectations and whether these expectations of the product (or services) positively influence the actual purchase. If the AR services cannot fulfill the promise along with the consumer's previous experience, this could have a negative impact on the overall experience and, thus, on the purchase decision (Aslam & Davis, 2024). On the other hand, when AR technology can evoke a real emotional connection, the perception of authenticity creates AR attachment and, in return, enhances customer expectations (Zhu et al., 2023). Hinsch et al. (2020) explored two mechanisms that can translate expectations into action: feelings of nostalgia and amazement. Overall, immersive technologies solidify customer expectations by giving them the personalization that will offer consumers to self-define their parameters, reinforcing the brand's authenticity (Al-Imamy & Nadeem, 2022; Bastide, 2017; Scholz & Duffy, 2018). Additionally, shared experiences through social interactions can further reinforce customer expectations (Papagiannis, 2020).

Customer Journey

Customer journey is another important aspect that scholars have attempted to explore in terms of the application of AR-VR technologies in the customer journey. Scholars have mainly focused on three stages: before purchase, at the point of purchase, and post-purchase (Lemon & Verhoef, 2016; Romano et al., 2021). For example, Romano et al. (2021) found that before purchase, AR-VR technology can widen the options for the consumer, and brands can connect with the consumer; at the point of purchase, AR-VR technology can add the element of fun, and post-purchase AR-VR technology influences how confident the person is. Conversely, Hollebeek et al. (2020) focus on using the computer-generated environment to engage customers throughout the consumer journey. Furthermore, Lemon & Verhoef (2016) stressed the need to understand these dynamics (AR-VR tools and consumer journey) from both the firm's and customers' (Lemon & Verhoef, 2016).

However, these studies exhibit limitations in their narrow delineation of the customer journey stages and failure to delve deeper into the tools and customer journey. Further, they argued that there is a need for empirical studies to further explore the intricacies (Hollebeek et al., 2020). Further studies have emphasized the need to understand these dynamics (AR-VR tools and consumer journey) from both the firm's and customers' (Lemon & Verhoef, 2016). Thus, while current studies provide the foundation, they only scratch the surface of the complex relationship

between AR-VR tools and the consumer journey, leaving ample room for further examination. With the valuable insights provided by existing research, there remains a need for a more nuanced understanding. There are two disadvantages: First, three phases of the customer journey are used, whereas there are five phases in the consumer journey. Secondly, we need to investigate how immersive technologies or AR-VR tools interact with each stage, which could improve our understanding of their impact on customer engagement and actual purchases. Clarifying these two drawbacks can help both researchers and practitioners understand the application of a particular tool versus others and, more broadly, strategize which tools are valuable at certain stages to create a positive customer experience and stimulate purchase.

CHALLENGES AND PROBLEMS IN INTEGRATING AR AND VR TECHNOLOGIES

While studies have emphasized using these immersive technologies in curating consumer experiences and their expectations before purchase and, more broadly, facilitating the consumer journey, empirical research points to counterintuitive results. For example, in some studies, these immersive technologies have either failed to deliver what they promised and negatively impacted the overall experience (Aslam & Davis, 2024), or consumers are discouraged from further consumption once they have experienced the augmented or virtual version of the product or service (Deng et al., 2019). Inherently interactive technologies offer fun, playfulness, and immersion, making them crucial for engaging customers. However, converting this engagement into purchases and retaining it presents a challenge (Deng et al. (2019). Moreover, a recent study by Nikhashemi et al. (2021) suggests that while these immersive technologies positively influence consumers, AR interactivity is limited to hedonic rather than utilitarian benefits. These studies indicate that immersive technologies are not a one-size-fits-all, nor does their solution have a similar impact on actual purchases, but that different contexts might use different aspects of these technologies (Papagiannis, 2020). For example, scholars argue that we must explore consumer engagement in AR environments across various product categories, such as cosmetics, music, and platforms (Arghashi & Yuksel, 2022). However, even when we consider how other studies have attempted to make sense of the scattered literature and their counterintuitive findings, diversity persists in their categorization. For example, the categorization could be in terms of channels, i.e., offline (Sung et al., 2021) and online (Xu et al., 2024). On top of that, scholars have indicated the need for a holistic conceptualization of the effects of these immersive technologies on consumers (Fan et al., 2020; Javornik, 2006; Ogunjimi et al., 2021).

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Based on this anecdotal evidence, we argue that the existing conceptualization is scattered, and therefore, a holistic conceptualization and implementation of AR-VR tools is required to fully realize their value in the customer journey. However, to understand the impact of these immersive technologies on the customer journey, we must first address the complexities that lead to counterintuitive outcomes and hinder the fit between the experience of interactive technologies such as AR and VR and the actual product, among other aspects (de Lurdes Calisto & Sarkar, 2024). Therefore, this section focuses on challenges ranging from technology to actual products or services and customer responses.

Technological Challenges

Quality of content

The first challenge that organizations must deal with is the quality of content, which is key to making an AR-VR experience seamless. Here, quality has several connotations, from the quality of images and videos to the description of products or offerings, the gamification or enjoyment aspect of AR-VR, and the usage of that interaction. For example, Xue et al. (2023) argued that AR should balance both functionality and entertainment aspects of the technology. Further, the VR headset could be expensive and lag in creating an immersive experience (Yersüren & Özel, 2024). Therefore, when using AR-VR tools, marketers must ensure that the quality of all aspects of the technology is consistent, as it is crucial for customer engagement.

Personalization issues

Another critical aspect of AR-VR technology is its ability to personalize the experience for customers. Studies have emphasized how AR can be contextualized according to the shopping context. For example, 3D interfaces, dynamic animation, and virtual try-ons are some aspects organizations use to create personalized and novel consumer experiences (Whang et al., 2021). While these immersive technologies provide consumers with personalization and increase customer loyalty, excessive personalization could limit the choices and options (Davis & Aslam, 2024). Therefore, it is important to understand the right fit between the ability to personalize viz-a-viz and consumer experience to enhance the AR apps (Rauschnabel et al., 2019).

User comfort

Despite the evolution of AR-VR technology and its integration into marketing strategies, there are still concerns regarding the user comfort aspect of these technologies (Venkatesh et al., 2012). VR headsets, for example, can be heavy and cause discomfort during prolonged use (Yersüren & Özel, 2024). Similarly, AR experiences require consumers to be aware of the technology and use the phone constantly, which may limit their widespread adoption (Davis & Aslam, 2024). As customer experience depends on seamless immersion and interaction experience (Hsiao et al., 2024; Nawres et al., 2024), solving comfort issues is critical to improving user experience and expanding the use of AR-VR technologies.

Challenges related to customer response

Skepticism

Studies have focused on whether AR could bring products or services closer to potential customers if and when consumers know and use these technologies. Scholars have found that the quality of AR tools enhances customer experience (Sung et al., 2021). However, others have pointed out that it is not just about awareness of the technology but comfort with the technology while using it (Davis & Aslam, 2024). Therefore, organizations should be mindful that the skepticism of technology could create resistance towards the product itself.

Privacy issues

Consumer response depends on the trust the brand and technology can build for the customer. In this regard, data privacy remains a concern, further fueling consumer skepticism (Davis & Aslam, 2024). Further, trust in AR can help us establish positive consumer engagement (Arghashi & Yuksel, 2022; Nawres et al., 2024). Therefore, transparency in the initial stages of consumer engagement is crucial for the brand to build trust and better connect with AR-VR technologies.

User experience

The success of AR-VR technologies hinges on the novel user experience. Early scholars such as Hassenzahl and Tractinsky (2006) and Law et al. (2009) have emphasized the interactivity and contextuality of the product and service that created a subjective experience for the user. Consequently, we need to understand better

how organizations can adapt these technologies so that they can curate personalized experiences.

Challenges related to actual product (or service) quality

Following technological concerns of AR/VR technologies, similar concerns trickle down to the products (or services) offered. One way to look at this challenge is when there is a *lag or lack of integration between the offering and its representation through interactive technologies*. For example, regarding AR-VR's effectiveness, the challenge is not just the virtual reality experience but also the technical side of the VR headset, such as battery life or AR app's lag (Yersüren & Özel, 2024).

At the same time, another way to think about it is when the *actual product is not up to the standards or promises*. And because of it, the product representation might have issues reflecting on the AR-VR. Another point to consider is that once the consumer has experienced the product or service, it may so happen that they no longer want to consume the actual product/ service (Deng et al., 2019). The organizational goal behind using these AR-VR technologies is to assess that these technologies curate the novel engagement experience that "mimics and does not over- or under-represent the actual product and creates the necessary trust-inspiring satisfaction" (p. 10, Nawres et al., 2024). It is important to see whether the technology matches the product and services (Lim et al., 2024). As it turns out, these inconsistencies can lead to discrepancies in consumer experience and expectations (Davis & Aslam, 2024). Therefore, we need to align the technologies with that of actual quality (or functionality).

Peripheral concerns

Methodological concerns

There are many methodological challenges in immersive technology research. For example, Beck and Crié (2018) point out the need for longitudinal studies; similarly, Chekembayeva et al. (2023) noted the lack of understanding of the actual shopping context. Nevertheless, others have pointed towards the lack of generalizability because of the specificity of location and sample type (Chiu et al., 2021; Hsu et al., 2021; Kumar, 2022). Fan et al. (2020) argue that collecting data from different consumer groups is necessary to provide a richer understanding and experience. Similarly, studies have emphasized incorporating consumer data to have a holistic conceptualization and solidifying the notion that immersive technologies have a positive impact on consumers' purchase intention and engagement (Javirnik, 2016; Ogunjimi et al., 2021; Qin et al., 2021).

Taken together, these challenges arise because of the lack of understanding of specific tools that work best with the product (service). Therefore, we will focus on the customer journey, where we will align the implementation of specific tools and the impact of these immersive technologies on the various stages of the customer journey.

DISCUSSION: INTEGRATIVE FRAMEWORK OF AR-VR TECHNOLOGIES AND CUSTOMER JOURNEY

Based on the challenges discussed in the previous section, the integrative framework proposed in this chapter focuses on aligning AR-VR technology with various stages of the customer journey (i.e., Awareness, Consideration, Decision, Retention, and Advocacy). In doing so, we found that not only is it critical to strategize the use of AR-VR tools in engaging customers throughout their journey, but also how the application and impact of these tools differ for different stages. Simply put, marketers might prefer one tool for creating awareness, but that same tool would be ineffective while the customer is making a final purchase (Figure 1).

Figure 1. Conceptual Model
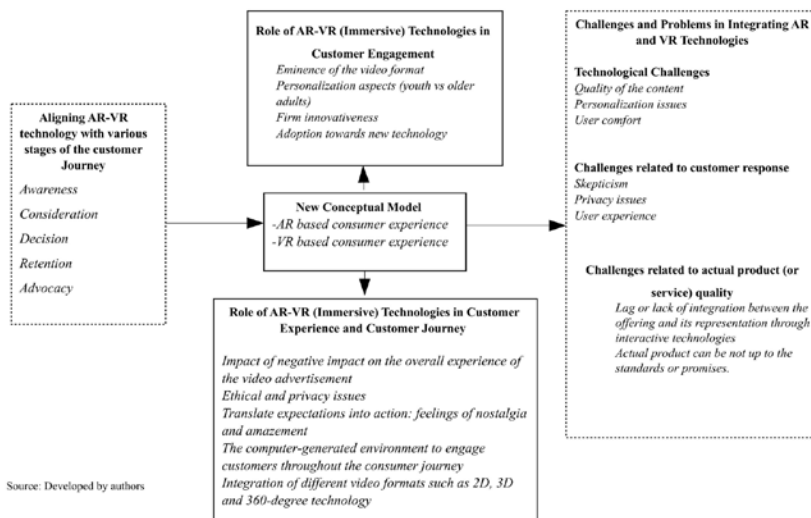
Awareness

AR-VR technologies are crucial for creating awareness around products (services). Organizations are doing this in various ways, from holograms to virtual stores; these immersive technologies are critical to creating the first contact point for the consumer. Making this immersive experience fun, informative, and seamless is important by allowing virtual explore the products and environment (Jayawardena et al., 2023a; Kowalczuk et al., 2021). For example, providing customers with instructional material will ease customer dissatisfaction while using immersive technologies because only some customers are proficient in complicated technologies (Davis & Aslam, 2024). The ultimate objective is to evoke a sense of "being there" and nudge the consumer into experiencing the real product or service.

Consideration

Organizations employ *AR-VR immersive storytelling and branding* techniques to engage customers and facilitate value co-creation (Bonsu & Darmody, 2008; Kim et al., 2023). For example, Bonsu and Darmody (2008) found that AR-VR technologies can communicate with consumers and facilitate value co-creation. Moreover, AR-VR tools expose customers to more numbers of product choices and make them feel that they are making an informed purchase decision and even this feeling stay with them till the post-purchase stages where they feel confident about their choices (Romano et al., 2021). As AR-VR tools allow the customers to immerse themselves and take part in understanding the products better and trying out the products, have an in-depth understanding of the products, all these experiences together make customers feel that they are part of the process and they take ownership of the process of evaluating and selecting the products without minimal intervention and support and participation from the side of the company or the retail outlet (Flavián et al 2019; Hinsch et al., 2020; Wedel et al., 2020). Further, Quin et al. (2021) create a playful consumer atmosphere. For example, 3D interfaces, dynamic animation, and virtual try-ons are some aspects organizations use to create personalized and novel consumer experiences (Whang et al., 2021).

Decision

Enabling product trials and simulating the usage and performance of the product in different scenarios and environments facilitates consumer decision-making (Daassi & Debbabi, 2021; Xu et al., 2024). Xu et al. (2024), for example, argue that AR enables an in-depth understanding of products. Immersive technologies can help make favorable brand purchasing decisions (Xu et al., 2024). Further, AR

curates virtual experiences that instill confidence in the consumer at purchase (Fan et al., 2020; Nawres et al., 2024). In their study, Nawres et al. (2024) found that the experiences made possible by augmented reality (AR) influence purchasing decisions for luxury products (Nawres et al., 2024).

Retention

Retaining customers is one of the most important aspects of the customer journey. Marketers can use AR-VR tools to build and strengthen customer loyalty by integrating these tools into post-purchase support, which includes guidance and assistance with installation, maintenance, or troubleshooting (Verhagen et al., 2016; Xu et al., 2024). For example, Davis and Aslam (2024) note that post-sales service quality, such as delivery processes, is equally important to prevent customer frustration and negative customer experiences. The idea is not to look at customer loyalty after the fact and haphazardly use AR-VR tools post-sales, but to take a long-term perspective and use these tools to support customers and make it easier for them to use the product and service.

Advocacy

Advocacy is the final stage of the customer journey. This is where the customer can share their opinion of the product or service with others through word of mouth or by writing online reviews. When AR-VR tools are used, marketers can emphasize "shared retailtainment," where customers share their purchases and decisions with others (Davis & Aslam, 2024; Papagiannis, 2020). In this way, customers feel confident and feel like they are sharing and recommending their purchase (Romano et al., 2021).

Taken together, marketers can use AR-VR tools to enhance the customer journey by creating more engaging, informative, and personalized experiences that influence consumer satisfaction, loyalty, and advocacy (Kim et al., 2023; Xu et al., 2024). By aligning AR-VR tools with each stage of the customer journey, organizations can address the identified challenges, create a seamless experience for customers, and eliminate the challenges associated with AR-VR technology.

CONCLUDING REMARKS: IMPLICATIONS AND RESEARCH DIRECTIONS

In this chapter, we draw on existing literature that shows that while AR-VR technology is helping businesses create spaces that allow customers to interact with their products in entirely different ways, it remains a challenge to realize the full potential of the technology. In line with the existing research, we argue that there is a need for a holistic conceptualization of the effects of these immersive technologies on customers (Fan et al., 2020; Javornik, 2006; Ogunjimi et al., 2021). In bringing the holistic conceptualization, we argue that three-fold challenges inhibit the holistic conceptualization and create hindrances while driving value from the technology. These challenges include AR-VR technology implementation, the actual product or service, and the consumer response. We then propose an integrative framework aligning AR-VR technology with various stages of the customer journey (i.e., Awareness, Consideration, Decision, Retention, and Advocacy). Aligning AR-VR technology with the customer journey not only makes it easier for companies to understand and adapt their technology implementation but also helps customers by designing experiences for each stage of the interaction. The idea is to take a strategic look while incorporating a specific tool and the goal or function of that tool in relation to the customer journey. For example, holograms are an effective tool for creating awareness, but their effectiveness is limited when a consumer moves along the customer journey. Therefore, strategies should be developed to integrate these tools carefully in the different phases of the customer journey. We now offer theoretical and managerial implications of the integrative framework and suggest future research direction.

Theoretical Implications

It is necessary to understand that the dynamic changes in immersive technologies affect the consumer journey and redefine the experience by co-creating value. In this paper, we attempted to assess some effective strategies that can be implemented to align immersive technology with customer journeys by analyzing the findings from the available literature. The key findings include improving customer engagement through immersive experiences, assessing the influence of AR-VR technologies throughout the customer journey, applying specific AR-VR tools, and personalized customer experiences. In achieving this objective, we also highlight the potential pitfalls marketers and customers face when implementing AR-VR technology into their existing offerings. The proposed framework can be extended to specific contexts such as tourism, hospitality, and so on to see how AR-VR technology can be integrated with customer journeys. Both researchers and industry practitioners can

use this integrative framework to use and explore new avenues with new ventures, such as advertising and marketing consulting firms.

Managerial Implications

Immersive experiences are provided by AR-VR technologies that go beyond traditional forms of engagement (Jayawardena, 2022). In a highly realistic and interactive environment, the consumer can interact with products, services, and brands in a way that leads to deeper engagement and emotional attachment (Jayawardena, 2022). It is necessary to understand that AR-VR tools allow personalized experiences tailored to individual preferences and needs. Moreover, firms nowadays can enhance engagement and loyalty by leveraging data analytics and user insights to build customized experiences that resonate with consumers personally, enhancing their engagement and loyalty (Feng et al., 2019). The positioning of technology implementation needs to be reevaluated, considering emerging immersive technologies that influence customer experiences at different touchpoints during a customer journey. There has been limited research on the effects of immersive technologies on customer experiences, with most studies appearing in industry journals (Jayawardena et al., 2023a; Jayawardena et al., 2023b).

It is important to understand that AR-VR can engage consumers in interactive marketing campaigns involving them in the brand experience. One example is the Lipton 360-degree video advertisement that attracted more viewers and became successful within the past five years. Through immersive storytelling, gamified experiences (this is mainly the game elements used with the retail advertisements such as coupon cards; entertainment, and puzzles), or interactive product demonstrations (using the AI and virtual reality video formats), these technologies enable consumers to actively participate in the marketing process actively, increasing engagement and brand recall by allowing them to become fully engaged in the marketing process (Feng et al., 2019; Chen et al., 2022). Despite this, there are still debates and a lack of clarity regarding how immersive technologies are managed and co-created with multiple stakeholders in an era of immersive technologies today. As a general rule, 3D advertisements require the viewer to wear special glasses or viewing devices to perceive the depth and dimensionality of the content (Feng et al., 2019; Chen et al., 2022).

Future Research Directions

This book chapter presents framework based on the review of literature on customer engagement through AR and VR tools, specifically focusing on the different stages of customer journey. However, this area would profit from further investigations on

how marketers can effectively integrate AR and VR tools into different stages of the customer journey. In the following paragraphs, we have detailed out potential future research avenues that could add useful insights to the ongoing discussions on the ways businesses can utilize AR-VR technology to engage customers on different stages of the customer journey.

Future research can, therefore, also investigate how the use of AR-VR tools can help or encourage customers to tell other customers about the products and services. These studies can inform the design of AR-VR-driven spaces where customers talk about their experiences. While previous studies have discussed using AR-VR tools in promoting or encouraging referrals through word of mouth, we still know very little about how these immersive tools help encourage referrals and positive word of mouth at each stage of the customer journey. For example, customers who are in the awareness stage but experiencing the unique AR-VR experience can spread good words about a particular brand or company and its offerings without even consuming the products and services. Therefore, studies incorporating AR-VR tools and their use at each stage of the customer journey can provide useful insights into how AR-VR tools can help build a brand community and create a space for customers to advocate for the brand as brand ambassadors at different stages of their journey.

Another potential area of research is to explore the contextual nuances and whether there are context-specific AR-VR tools that are effective for a particular sector or product category. For example, it would be interesting to see how the implementation of AR-VR technology would impact the customer journey in retail and tourism. Can they use the same tool, and if so, to what extent are they similar, and if not, to what extent do the differences persist?

Another concern of marketers is to make the AR-VR experience tangible for customers. If you include the customer journey, it becomes even more difficult for them, as they now have to consider the specific and different requirements of customers in the various phases of the customer journey. The existing literature discusses using storytelling and gamification to make the overall experience more enjoyable and relatable for customers. But we still don't know what approaches marketers should take and what methods they should use to make the experiences at different stages of the customer journey relatable and engaging for customers. Therefore, we encourage researchers to focus more on the approaches, tools, mediums, and platforms under the AR-VR umbrella that marketers can utilize or adopt to effectively engage customers at different stages of the customer journey. In this way, future research efforts can make a meaningful contribution to a given company's online engagement and overall revenue growth.

Yet another fruitful avenue for future research would be to understand these dynamics (AR-VR tools and consumer journey) from both the marketer's and customer's perspective (Lemon & Verhoef, 2016). Exploring the nuances from both

sides (marketer and customer perspectives) will help to better understand each other and improve value co-creation.

Based on our literature review, we could see many studies discussing the resistance or hesitation customers experience while adopting AR-VR technologies as they are radically innovative and completely new. Such studies have enriched our understanding of the challenges that businesses face. While introducing these new-to-the-market technologies, new-to-the-market technologies in their retail setups fall short of clarifying what strategies these companies should take to address these initial adoption barriers in different stages of the customer journey. How can the companies make these tools user-friendly? How can they ensure that customers feel safe and secure about privacy issues? How can they ensure there is no information overload for the customers and that they can easily process the new information related to these technologies and the added information about the products and services? Therefore, studies in this direction can help marketers have the roadmap to make AR-VR technologies user-friendly and address all the adoption barriers. Moreover, most studies on technology adoption barriers typically use the technology adoption model. We argue that future studies can go beyond this method and also use inductive methods like ethnography where they can create a lot of useful insights by staying close to the customers and companies actively dealing with these AR and VR technologies.

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