

Revolutionizing the Purchase Funnel: An in-depth analysis of Virtual Reality's impact on Consumer Decision Making

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ABSTRACT:

This research aims to explore the transformative influence of Virtual Reality (VR) on the traditional purchase funnel, dissecting each stage from awareness to advocacy. By synthesizing insights from recent studies, the study will investigate how VR variables, including immersive experiences, sensory cues, and emotional engagement, reshape the consumer journey within the context of the purchase funnel. Special attention will be given to the integration of VR technologies in product evaluation, online retail experiences, and brand marketing. The goal is to uncover novel strategies that leverage VR to enhance consumer engagement, decision-making, and loyalty throughout the purchase funnel. The findings of this research will contribute to the understanding of VR's potential in revolutionizing traditional marketing and consumer behaviour models.

Keywords: Virtual Reality (VR), Consumer Journey, Immersive Experiences, Purchase Funnel (AIDA Model), Consumer Engagement

1. Introduction:

Virtual reality (VR), once synonymous with immersive gaming experiences, has transcended its traditional boundaries and emerged as a transformative force in the contemporary business landscape (Pantano & Naccarato, 2010). Characterized by real-time inducing graphics and a multi-dimensional framework, VR is not merely a source of entertainment but a technology with the potential to reshape various industries, from construction to aerospace and oil and gas (Slater & Sanchez-Vives, 2016). In recent years, the influence of VR has extended its reach into the realm of retail, revolutionizing the customer purchase funnel and redefining the dynamics between consumers, brands, and retailers (Laria & Pantano, n.d.; Slater & Sanchez-Vives, 2016). The undeniable impact of VR on the retail landscape, including the transformation of physical stores, demands scholarly attention and strategic considerations in the face of fierce market competition (Grewal et al., 2018). As VR continues to gain prominence, both researchers and retailers find themselves drawn to the potential it holds for enhancing customer experiences and strategic business management.

In response to the burgeoning interest in VR's impact on the retail sector, this paper explores the intricate interplay between virtual reality and the consumer purchase funnel. Retailers, faced with the imperative to stay relevant in an era dominated by digital experiences, are compelled to strategically reimagine their business operations to integrate VR seamlessly (Diemer et al., 2015). As virtual environments become central to innovative consumer experiences, the need for a comprehensive understanding of the evolving landscape is imperative. The growth trajectory of virtual environments in the past decade underscores the commercial viability of VR, particularly in marketing applications. The global market for virtual environments, encompassing both virtual and augmented reality, has surged from 27 billion U.S. dollars in 2018 to an impressive 209.2 billion U.S. dollars in 2022, opening new avenues for exploration and innovation (Statista, 2018). This paper delves into the applied aspects of virtual reality. The evolution of VR applications from simulation and entertainment to diverse domains like tourism, retailing, and healthcare underscores its adaptability and pervasive impact (Abboudi et al., 2013; Krasonikolakis Adam Vrechopoulos Athanasia Pouloudi, n.d.). Moreover, studies reveal that virtual reality experiences significantly influence consumer behavior, affecting concepts such as attachment, engagement, identity, and purchase decisions (Bigné et al., 2016; Grewal et al., 2018; Krasonikolakis Adam Vrechopoulos Athanasia Pouloudi, n.d.). The S-O-R (Stimuli-Organism-Response) framework serves as a valuable lens to understand how VR stimuli influence consumers' emotional and cognitive states, subsequently shaping their behaviors in the retail context (Dash et al., 2019; Roschk et al., 2017).

This research also examines the structural dynamics of marketing activities, which is a related stream of literature. Marketing initiatives typically operate in a number of distinct and dormant phases. Since customer behavior might change as they move through the decision-making process, it's critical to capture the dynamics throughout these stages (Abhishek et al., 2012; Netzer et al., 2008). The terms "purchase funnel" and "funnel path" refer to these distinct phases. These funnel path models depict how marketing efforts & advertising increases consumer awareness, sparks their interest, (Abhishek

et al., 2012) and thus drives them closer to the action or real purchase phase. As we navigate this dynamic intersection of virtual reality and marketing, our exploration aims to contribute insights that deepen our understanding of how marketing effort using VR is reshaping the consumer purchase funnel in the contemporary retail landscape. The stakes are high, and retailers must strategically harness the power of VR to remain competitive in an ever-evolving market landscape.

2. Research Objective:

The research objective of this study is to examine the impact of Virtual Reality (VR) technology on consumer engagement at various stages of the purchase funnel, with a specific focus on how VR influences consumer behavior, enhances marketing effectiveness, and improves the overall customer journey. The study aims to:

- Analyze how VR technology can be integrated into marketing strategies to raise consumer awareness, generate interest, create desire, drive action, and foster brand advocacy.
- Investigate the effectiveness of VR in delivering immersive and interactive experiences that surpass traditional marketing methods.
- Identify the key VR elements that influence consumer decision-making and purchase intentions.

3. Literature Review:

3.1 Consumer Purchase Funnel:

In 1898, *The Inland Printer*, one of the most important American magazines of the 19th century, published a column written anonymously by Elias St. Elmo Lewis, who would go on to be inducted into the Advertising Hall of Fame. The column discussed three advertising principles that Lewis had found useful throughout his career. He claims in his column that there is a certain formula that an effective commercial must always adhere to. "An advertisement's goal is to draw in the reader so that he will glance at it and begin reading it; it then needs to pique his interest so that he will read on; and last, it must persuade the reader so that after reading it, he will believe it. An advertising is considered operative if it possesses at least these characteristics of success. To put it another way, copy is only effective if it follows this sequence: attention, interest, and conviction. There have been numerous transformations in the advertising and marketing context since then, moving on from print advertisements to digital marketing, virtual reality, augmented reality and even mixed reality, however the moral of this concept still holds good for most of the marketing efforts.

Hence this research examines these structural dynamics of marketing activities, which is a related stream of literature. Marketing initiatives typically operate in a number of distinct and dormant phases. Since customer behavior might change as they move through the decision-making process, it's critical to capture the dynamics throughout these stages (Abhishek et al., 2012; Netzer et al., 2008). The terms "purchase funnel" and "funnel path" refer to these distinct phases. A funnel can also be described as a situation where a business employs a marketing plan, using the funnel's top symbol to capture as much market share as possible in the beginning. The process of a customer's trip from the "awareness" stage, when they first discover about the product or service being offered, to the "purchase" stage, when they are prepared to purchase it, is known as the marketing funnel. The business is gradually encouraging or swaying prospective clients' ongoing purchase decisions.

These funnel path models depict how marketing efforts & advertising increases consumer awareness, sparks their interest and thus drives them closer to the action or real purchase phase. Businesses need to create marketing plans that will motivate consumers to stick with them through different phases of the customer journey.

3.2 Stages of funnel marketing:

3.2.1. Attention/Awareness: The goal of the awareness stage of a marketing funnel is to raise awareness in potential consumers through various marketing initiatives, in this study we have focused on the activities in the context of virtual reality leveraging its immersive nature to create memorable experiences that resonate with potential customers.

3.2.2. Interest: In order for potential customers (suspects) to learn more about the goods, their curiosity must be aroused and maintained. Presenting information in a clear, well-paced manner and having an engaging character, voice actor, or mascot deliver it is one way to keep viewers' attention. Once attention is captured, maintaining and nurturing consumer interest becomes essential. This involves strategically presenting information about the product or service in a clear, engaging manner to sustain curiosity. Utilizing techniques such as storytelling, interactive content, or engaging spokespersons can effectively keep viewers intrigued and motivated to learn more.

3.2.3. Desire: Selling a product's features, differentiating it from competitors, and showcasing its adaptability are common strategies used to increase desire. This is essentially the way a product or service's value proposition, i.e. the attractive features that persuade a customer to choose this specific offering and ultimately make a purchase is being presented. This stage aims to differentiate the offering from competitors and highlight its adaptability to meet consumer needs and

preferences. By effectively communicating the product's value, businesses can stimulate desire and drive consumers closer to making a purchase decision.

3.2.4. Action: There must be curiosity if the customer has gotten this far. Closing the deal and persuading the client to take action out of interest constitute the last phase; this may entail addressing concerns and issuing a call to action (CTA) can facilitate the transition from interest to action, driving conversion and sales.

3.2.5. Advocacy (the extension in Purchase Funnel): The ultimate goal of marketing is to make a consumer reach this stage in the purchase funnel wherein the customer becomes a loyal brand advocate. Beyond the initial purchase, the ultimate goal of marketing is to cultivate brand advocacy. This entails transforming satisfied customers into loyal brand advocates who actively promote and endorse the brand to others. By delivering exceptional experiences and fostering meaningful connections with customers, businesses can encourage advocacy, leading to long-term loyalty and positive word-of-mouth marketing.

Image: 3.1 (The purchase funnel)



(source: wikipedia.org)

3.3 Virtual Reality, the Conceptualisation:

Technology's capacity to replicate many realities has expanded the ways in which people can engage with the outside world and given rise to new opportunities for marketers. Users and customers can get real-time information in a number of ways through the simulation of reality. Mills et al. (1994) defined the Reality-Virtuality continuum as follows: Three categories of technical solutions are progressively being offered to customers, (1) virtual, (2) augmented, and (3) spatial. A virtual reality (VR) environment is a fully artificial world that the user is submerged in, and it could or might not resemble the actual world (Milgram, 1994). Morton Heilig developed the first virtual system in 1960–1962, which lacked human contact but included a prerecorded color picture with sensory elements like sound and smell. Many iterations of this technology have been developed, including interactive graphics, head tracking, and novel image processing methods that facilitate interpersonal communication. Even though the first VR gadgets went on sale 50 years ago, businesses didn't begin to effectively utilize this technology until a few years ago (Slater & Sanchez-Vives, 2016). According to (Xu et al., n.d.), VR is currently dependent on a Head Mounted Display (HMD), which means that the projected image can only be viewed through the device's integrated screen. When used in conjunction with a gyroscope, this headgear transcends the limitations of computer or television monitors by making three-dimensional objects and characters appear life-sized.

The game business entered the race to produce eye-catching material that would be beneficial to marketers and customers alike, while prototype gear was being distributed to the general public (Hamari et al., 2017). A few instances of how this technology is being used in daily life are; military training programs and driving license courses (Kumar Bhagat & Chang, 2016) ; information retrieval through virtual libraries (Vasileiou et al., 2012); entertainment during sporting events or music performances (Michael Zyda, 2005); and, most importantly, entertaining and engaging ways to interact with customers. These days, virtual reality technology enables users to enjoy different realities that occasionally outweigh the effects of real-world experiences (Pantano & Naccarato, 2010).

3.4 Technology and Immersion:

The creation of a virtual world that envelops viewers and makes them feel as though they are a part of it is known as immersive virtual reality. Virtual reality interfaces come in a variety of forms. Over time, a variety of Head Mounted Displays (HMD) have been created, with the majority featuring stereoscopic displays, tracking systems, and a broad field of view. These gadgets are equipped with accelerometers and gyroscopes, which allow them to detect the user's location and adjust the scene according (Xu et al., 2015). Large VR screen-based systems and other fixed devices have been developed and applied in several fields of study. Typically, the CAVE (Cave Automatic Virtual Environment) is a cubic chamber with stereoscopic images projected on all but one of the walls. With stereoscopic glasses, this gives the user the impression that they are in a real environment. Lower levels of immersion VR experiences are possible with smaller devices, such as a single large flat panel, a combination of smaller screens, curved screens, hemispheric screens, and other varieties.

According to (Kowatsch & Maass, 2010), there is an urgent need for point-of-sale environments to leverage VR techniques to provide a wider range of helpful information and so improve the decision-making process. According to (Crawford et al., 2016), virtual reality tools facilitate the creation of novel channels that are abundant in interactive graphic icons, linkages, and three-dimensional images. Additionally, they offer a safe space for exchanges and engagements between humans and computers (Lee and Chung, 2008).

4. Research Methodology:

Through this study a descriptive analysis was done to understand the impact of marketing efforts made using the VR (Virtual Reality) technology at different stages of the purchase funnel. It involves a mixed-methods approach, combining both qualitative and quantitative research techniques to comprehensively examine the impact of Virtual Reality (VR) technology on consumer engagement across the purchase funnel.

5. Data Analysis:

The study synthesized the qualitative and quantitative findings to comprehensively understand the impact of Virtual Reality (VR) on consumer engagement across various stages of the purchase funnel. Key themes such as immersion, user experience, and emotional engagement were extracted and coded for deeper analysis. It ensures a robust analysis, offering comprehensive insights into the efficacy of VR in enhancing consumer engagement and driving marketing outcomes.

(Branca et al., 2023) examined how customers evaluate packaged goods in immersive virtual reality (VR), adjusting haptic and structural cues on the packaging, and elucidating any discrepancies from real-world consumer responses. Focus groups, a mixed design experiment, and a choice-based conjoint analysis were all carried out. The primary conclusions show that, with a few exceptions, consumer behavior in virtual reality is consistent with real-world behavior. Virtual reality (VR) demonstrates itself as an effective and rigorous research environment that may be used to assess non-tangible qualities and sensory signals. Lastly, the paper makes the case that managers can leverage virtual reality (VR) for product and package development in an efficient manner, using less time and resources than they would with traditional testing.

An experiment was carried out to compare how users perceived a standard 2D online clothes store with an enhanced, immersive 3D experience that gave the impression of visiting a physical store through the use of data gloves and special glasses. The findings illustrated how telepresence in the virtual environment combined with hedonic and utilitarian values explain satisfaction and have a stronger impact on engagement (Papagiannidis et al., 2017).

In comparison to visuals made on a desktop or mobile device, a lab experiment revealed that VR HMD (Head-Mounted-Displays) generate higher immersion and advanced sensory stimulation, facilitating better level of engagement and behavioural intention towards goal (Flavián et al., 2019, 2021). A comparative study conducted in the hotel business comparing 360-degree tours, photos, and VR previews showed unequivocally that the VR preview generated stronger mental imagery about the encounter and a strong sensation of presence, which in turn translated to an enhanced brand experience (Bogicevic et al., 2019; Dash et al., 2019b, 2019a).

By defining and characterizing the technological aspects of virtual reality (VR), such as interactivity, hyper-textuality, virtuality, modality, location specificity, mobility, and connectivity, an intriguing study explores the impact of recent VR technology on consumer behavior. This helps businesses recognize and react to customer needs and marketing opportunities more quickly, efficiently, and effectively (Violante et al., 2019).

According to (Martínez-Navarro et al., 2019), all VR formats demonstrated a dual impact on consumers' purchase intentions: one through affect caused by the virtual world and brand recall, and the other through emotions and a sense of presence. The emergence of virtual reality has presented marketers, content creators, and companies with new problems about the future of content creation, consumer reception, and return on investment. (Manis & Choi, 2019) examined these interactions and expanded the technology acceptance model (TAM) by including perceived enjoyment as a significant variable. Their findings corroborate the expectation that VR hardware will become widely available in the future and contribute to the enhancement of the consumer experience by adding the perceived enjoyment factor.

Many studies have recently attempted to determine the effects, causes, and results of the fusion of technology and human senses. According to one study, VR devices have a moderating effect on behavioral engagement by eliciting more positive emotional reactions and higher levels of psychological and behavioral engagement (Flavián et al., 2021). Virtual reality marketing is here to stay and will have a broad impact on marketing strategy. The participants, who were young adults, showed greater emotional responses toward brands in VR games and later on showed better attitude and purchase intention towards the brand (van Berlo et al., 2021). This was discovered while conducting a between-subjects lab experiment with branded VR games vs. non-Branded VR games.

Full-text analysis of articles centered on VR and gamification in higher education was done using a text mining technique, and the results indicate that applying these could increase student engagement (Loureiro et al., 2021). A case study approach was employed by certain writers to examine the immersive configurator, which is a virtual catalogue, utilized by a Mediterranean shipping company while sailing. The study's groundbreaking findings include the discovery that a virtual catalogue's interactive feature enhances consumer experience and engagement (Simoni et al., 2022).

Table-5.1: AIDA Model Coding for Virtual Reality (VR) Variables

Stages of Purchase Funnel	Journal	Topic	Author	Elements of VR influencing the PF (study outcome)
AWARENESS	Journal of Business Research	Brands in virtual reality games: Affective processes within computer-mediated consumer experiences	Van Berlo et al., 2021	VR marketing and branded VR games contribute to creating awareness.
	International Journal on Interactive Design and Manufacturing	How to design a virtual reality experience that impacts the consumer engagement: the case of the virtual supermarket	Violante et al., 2019)	VR technologies contribute to creating awareness by delivering high-impact and memorable experiences.
	Journal of Business Research	The influence of virtual reality in e-commerce	Martínez-Navarro et al., 2019	Different VR formats and devices impact awareness in virtual stores.
INTEREST	Tourism Management	Virtual reality presence as a preamble of tourism experience: The role of mental imagery	Bogicevic et al., 2019	VR previews, especially in the form of 360° tours and VR, affective mechanisms contribute to increased interest in the destination
	Journal of Travel and Tourism Marketing	Integrating virtual reality devices into the body: effects of technological embodiment on customer engagement and behavioral intentions toward the destination	Flavián et al., 2019	Technological Embodiment and Customer Pre-experiences lead to higher sensory stimulation
	Journal of Hospitality and Management	Impacts of technological embodiment through virtual reality on potential guests' emotions and engagement	Flavián et al., 2021	VR technologies in the hospitality sector evoke positive emotional reactions, generating interest
DESIRE	Journal of Business Research	The virtual reality hardware acceptance model (VR-HAM): Extending and individuating the technology acceptance model (TAM) for virtual reality hardware	Manis & Choi, 2019	Challenges in content creation and consumer acceptance impact the development of desire
	Information Technology and People	To immerse or not? Experimenting with two virtual retail environments	Papagiannidis et al., 2017	Telepresence components play a major role in simulated experiences, impacting desire and satisfaction
	Journal of Hospitality and Tourism Technology	Boosting the pre-purchase experience through virtual reality. Insights from the cruise industry	Simoni et al., 2022	Immersive configurators, improves customer experience and customization, enhancing desire.
ACTION	Spanish Journal of Marketing - ESIC	Virtual reality and gamification in marketing higher education: a review and research agenda	Loureiro et al., 2021	VR and gamification engage students, prompting action in the education sector.
	Psychology and Marketing	Virtual is so real! Consumers' evaluation of product packaging in virtual reality	Branca, G., Resciniti, R., & Loureiro, S. M. C. (2023)	VR demonstrates consistency with real-world consumer behaviour for product evaluation and package development prompting purchase

6. Conclusion:

The sense of presence makes a lot of difference in case of virtual reality, which in turn, offers a more immersive experience to the customers as compared to standard 2D screen. This extensive study sheds light on how Virtual Reality (VR) is revolutionizing both the traditional buying funnel and customer decision-making processes. After looking through a number of research, it's clear that virtual reality (VR) may increase consumer engagement since it provides rich, immersive experiences that go beyond what can be achieved with traditional marketing strategies. The results highlight the critical role VR variables play at every point in the consumer journey, from awareness to advocacy, from immersive experiences and sensory cues to emotional involvement. In addition to differentiating goods and services, virtual reality's capacity to produce engaging and interactive brand experiences also helps to strengthen the emotional bond between customers and

businesses. This study focuses on the tactical ways that companies may use virtual reality (VR) to improve consumer happiness and decision-making confidence in online retail, product development, and marketing campaigns. Moreover, a noteworthy effect of VR testing is the enhancement of product and package creation efficiency, highlighting the possibility of process streamlining and lower resource costs for enterprises. The study reveals the exciting potential of virtual reality (VR) in education and training, adding a new dimension to immersive learning settings, beyond its impact on consumer-focused applications. The study indicates that adopting VR strategically is not merely a technological innovation but also a revolutionary approach that can influence how customers will interact with brands in the future, as technological integration becomes more and more important for companies.

Implementing personalized marketing strategies can significantly enhance the effectiveness of each stage of the funnel by leveraging consumer data and analytics to tailor messaging and experiences to individual preferences and behaviours. It will also increase the relevance and engagement. Integrating VR experiences seamlessly across multiple channels through an omnichannel approach ensures consistency and coherence in messaging and branding, which enhances the overall consumer journey and drives conversions. Establishing key performance indicators (KPIs) and metrics to measure the effectiveness of VR marketing initiatives is crucial for analysing data and insights, refining strategies, optimizing resource allocation, and maximizing ROI. Prioritizing user experience design in VR environments fosters engagement and satisfaction, as seamless navigation, intuitive interfaces, and immersive storytelling lead to higher levels of interaction and conversion. Investing in high-quality content creation is vital for VR marketing success, necessitating collaboration with creative professionals and leveraging cutting-edge technologies to ensure VR experiences are compelling, memorable, and aligned with brand objectives. Beyond consumer-focused applications, VR can also be leveraged for education and training purposes, with businesses using VR simulations and immersive learning experiences to train employees, educate customers, and showcase products or services dynamically and interactively. As VR technology becomes more prevalent in marketing, businesses must consider ethical implications such as data privacy, consent, and inclusivity by implementing ethical guidelines and standards to ensure VR experiences are respectful, transparent, and compliant with regulations. Lastly, anticipating future trends and developments in VR technology provides businesses with a competitive advantage, as keeping abreast of emerging innovations such as augmented reality (AR), mixed reality (MR), and spatial computing enables businesses to adapt and evolve their VR strategies accordingly.

7. Managerial Implication:

This study's management implications about the revolutionary effects of virtual reality (VR) on the buying process and customer decision-making are significant, indicating that companies must deliberately include VR technologies into their marketing and operational plans. Given that virtual reality (VR) has the potential to significantly increase customer engagement and brand distinction, managers ought to think about implementing immersive VR experiences at multiple stages in the sales funnel. This calls for a deliberate change in marketing strategies to focus more on engaging and emotionally impactful content while utilizing VR's sensory-rich environment. Moreover, managers have a real chance to expedite procedures, shorten development schedules, and maximize resource use thanks to the efficiency advantages in product and package development brought about by VR testing. The study emphasizes how VR has the ability to reduce consumer apprehension in the context of e-commerce, which could boost trust in online purchases and possibly lower the rate of product returns. The results also highlight the need of adopting technology with a forward-thinking mindset, since companies who proactively include virtual reality into their plans will have a competitive advantage in satisfying changing customer demands. Recognizing VR's potential to transform learning experiences, the report advises managers to investigate its integration in training and education projects, in addition to consumer-focused applications.

In the end, this research provides managers with strategic guidance by encouraging them to see virtual reality (VR) as a revolutionary force that has the power to topple conventional business processes, spur innovation, and improve the customer experience in general, rather than just as a new technology. Businesses that deliberately embrace virtual reality (VR) can put themselves at the forefront of technology breakthroughs and cultivate an organizational culture that is dynamic and customer-centric and in line with the rapidly changing landscape of modern commerce.

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