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The Role and Impact of Augmented Reality and Virtual Reality in Enhancing Consumer Experience

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Abstract

This study examines the role and impact of Augmented Reality (AR) and Virtual Reality (VR) in enhancing consumer experience across different stages of the customer journey. With immersive technologies becoming increasingly integrated into marketing, AR and VR offer interactive, personalized, and experiential engagements that shape consumer perceptions, emotions, and decision-making. Drawing on existing literature and primary data collected from 110 respondents aged 18–34, the research evaluates consumer familiarity, trust, ease of use, enjoyment, and purchase intentions associated with AR/VR-enabled shopping. The findings indicate that younger consumers (18–24) show slightly higher engagement and willingness to recommend AR/VR experiences, although overall trust and purchase influence remain moderate. While AR and VR improve product visualization, engagement, and brand recall, they are not yet strong determinants of final purchase decisions or willingness to pay a premium. Barriers such as high cost, accessibility constraints, and limited technological familiarity continue to hinder widespread adoption. The study suggests that brands should enhance user trust, reduce cost barriers, and integrate personalization and gamification to strengthen consumer acceptance. Overall, AR and VR hold significant potential to transform consumer experience, but their impact depends on strategic implementation and continuous technological refinement.

Keywords: Augmented Reality (AR), Virtual Reality (VR), Consumer Experience, Immersive Technologies, Purchase Intention, Consumer Behaviour, Marketing Innovation

Introduction

In the digital era, technological advancements are fundamentally reshaping how consumers interact with brands, products, and services. Among these advancements, Augmented Reality (AR) and Virtual Reality (VR) stand out as transformative tools in marketing, bridging the gap between physical and digital consumer experiences. Both technologies are part of what is often termed extended reality (XR)—a spectrum of immersive technologies that merge real and virtual environments. AR enhances the real-world environment by overlaying digital content, while VR fully immerses users in simulated worlds that replace their physical surroundings. Although different in execution, both technologies share a common purpose: creating interactive, immersive, and memorable consumer experiences. This ability has positioned AR and VR as powerful drivers of consumer engagement, brand loyalty, and purchase intent.

The journey of AR and VR from niche innovations to mainstream marketing tools has been shaped by technological progress and changing consumer expectations. Early VR systems in the 1980s and 1990s were bulky, expensive, and largely confined to gaming and defense applications (Slater & Sanchez-Vives, 2016). Similarly, AR was once limited to experimental projects due to hardware and software constraints. Over the last decade, however, developments in smartphone technology, artificial intelligence, and 5G connectivity have accelerated the adoption of AR and VR in everyday consumer contexts. Mobile-based AR apps—such as Snapchat filters or IKEA's "Place"—have made AR widely

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accessible, while affordable VR headsets such as Meta Quest have expanded VR's reach. These developments reflect a shift in consumer expectations: people no longer view technology as a utility alone but as an experience-enhancing tool.

Consumer behavior today is increasingly shaped by experiences rather than transactions. Traditional marketing focused on persuasion through advertising, but modern consumers demand personalization, engagement, and co-creation (Dwivedi et al., 2022). AR and VR address this demand by transforming the customer journey across multiple stages:

Awareness: Interactive AR ads capture consumer attention more effectively than static ads.

Consideration: Virtual try-ons reduce uncertainty and increase purchase confidence.

Purchase: Immersive VR experiences such as virtual showrooms enhance decision-making.

Post-Purchase: AR-based guides and VR tutorials improve product usage and satisfaction.

By enhancing both hedonic (pleasure-driven) and utilitarian (function-driven) aspects of shopping, AR and VR play a critical role in influencing consumer attitudes, satisfaction, and loyalty.

The global market for AR and VR reflects their growing commercial significance. According to Statista (2024), the AR and VR market is projected to surpass $200 billion by 2030, with retail, e-commerce, education, healthcare, and entertainment being the largest beneficiaries. McKinsey (2023) reports that companies investing in immersive technologies observe up to a 20–30% increase in consumer engagement metrics compared to traditional marketing approaches. Such figures highlight not only the economic viability of AR/VR adoption but also the competitive advantage it offers to brands willing to innovate. For consumers, the technologies symbolize empowerment—enabling informed choices, richer engagement, and reduced risk in decision-making.

This paper examines the role of AR and VR in enhancing consumer experiences by integrating insights from academic literature, industry applications, and primary survey data. The objective is to analyze how immersive technologies impact consumer decision-making, trust, and loyalty while also identifying the barriers to widespread adoption. In doing so, the research contributes to the growing discourse on digital marketing innovation and provides actionable recommendations for businesses seeking to leverage AR and VR in their marketing strategies. The study acknowledges both the opportunities and challenges, arguing that while AR and VR are not yet universal determinants of purchase decisions, they are increasingly influential in shaping the consumer journey.

Literature Review

Augmented Reality (AR) is increasingly positioned as a transformative technology in consumer marketing because it overlays digital elements onto real-world contexts, bridging the gap between physical and virtual environments. AR applications allow consumers to engage with products more interactively, often through mobile applications or in-store smart mirrors. According to Rauschnabel et al. (2022), AR creates a sense of *augmentation of reality* by enabling consumers to visualize, manipulate, and experience products before purchase, thereby reducing uncertainty and cognitive dissonance. Retail and beauty brands have been early adopters of AR technologies. L'Oréal's virtual try-on feature, for instance, enables customers to test shades of lipstick or foundation before purchasing, which has been shown to increase purchase confidence and reduce product returns (Scholz & Duffy, 2018). Similarly, IKEA's "Place" app allows customers to position furniture virtually in their homes, helping them assess fit and design aesthetics in real-time. This functionality enhances not only utilitarian value but also hedonic experiences, which are increasingly critical in differentiating brands (Javornik, 2016). Academic literature also emphasizes the role of AR in personalization. Personalization, when combined with AR, leads to higher levels of consumer satisfaction and brand loyalty (Huang & Liao, 2017). By providing a tailored and immersive experience, AR fosters a stronger sense of brand engagement compared to traditional two-dimensional advertising formats.

Virtual Reality (VR) is considered a more immersive technology than AR because it substitutes real-world environments with entirely simulated experiences. This level of immersion fosters heightened emotional and cognitive involvement with the brand (Loureiro, Guerreiro & Ali, 2020). VR allows consumers to "live" the brand narrative rather than merely observing it.

For example, Marriott Hotels created a VR campaign called "Teleporter," allowing potential customers to experience destinations virtually before booking. Similarly, automotive companies like Audi and BMW have implemented VR test drives that enable consumers to experience car features without visiting a showroom.

Research suggests that VR's effectiveness lies in its ability to generate *telepresence*—the psychological state where consumers feel as though they are "present" in the virtual environment (Slater & Sanchez-Vives, 2016). Telepresence is associated with stronger brand recall, deeper emotional connections, and increased purchase intentions. However, accessibility issues—such as the need for VR headsets—continue to be a major limitation. While headsets are becoming more affordable, their penetration remains lower than mobile-based AR (Flavián et al., 2019).

Comparative Effectiveness of AR and VR

Although both AR and VR enhance consumer experiences, their effectiveness varies by context. AR is generally more effective in *utilitarian decision-making processes* (e.g., furniture, fashion, cosmetics), where consumers benefit from realistic visualization. VR, on the other hand, excels in *hedonic and experiential contexts* (e.g., travel, gaming, entertainment), where immersion and storytelling play a more significant role (Poushneh, 2018).

Several comparative studies reveal that AR is more scalable due to its integration into smartphones, whereas VR often requires specialized hardware (Rauschnabel et al., 2022). Furthermore, while AR influences *pre-purchase evaluation* by enabling better product visualization, VR impacts *brand attitude formation* through immersive narratives (Dwivedi et al., 2022).

Theoretical Frameworks Supporting AR/VR Adoption

The adoption of AR and VR can be understood through various theoretical lenses:

- *Technology Acceptance Model (TAM):* Suggests that perceived usefulness and ease of use drive consumer adoption of AR/VR technologies (Davis, 1989). For example, AR apps that are easy to use and add functional value (e.g., virtual try-ons) are more likely to be adopted.
- *Unified Theory of Acceptance and Use of Technology (UTAUT):* Highlights the role of performance expectancy, effort expectancy, social influence, and facilitating conditions in consumer adoption (Venkatesh et al., 2012). AR/VR adoption often depends on peer influence and availability of supportive infrastructure.
- *Flow Theory:* Proposes that immersive technologies induce a state of flow—deep involvement where consumers lose track of time. VR campaigns in tourism and gaming often rely on creating flow states to maximize engagement (Csikszentmihalyi, 1990).
- *Presence Theory:* Suggests that a consumer's sense of presence in AR/VR environments enhances trust, satisfaction, and purchase intentions (Slater & Sanchez-Vives, 2016).

Industry-Specific Applications of AR and VR

- *Retail & Fashion:* AR-based virtual try-ons (Sephora, Nike) increase confidence in product choices. Studies show AR reduces product return rates by up to 25% (Bonetti et al., 2018).
- *Tourism & Hospitality*: VR tours (Marriott, Thomas Cook's "Try Before You Fly") allow consumers to preview destinations, leading to increased bookings (Loureiro et al., 2020).
- *Education & Training*: VR simulations are used in medical and engineering education to provide hands-on learning without real-world risks (Radianti et al., 2020).
- *Automotive:* VR test drives and AR-assisted car manuals enhance customer engagement (Pantano & Servidio, 2012).
- *Healthcare:* VR is used for therapy (e.g., phobia treatment, pain management), while AR assists in surgeries with real-time data overlays.

These industry applications illustrate that AR and VR go beyond novelty and serve functional as well as hedonic needs, depending on the consumer journey stage.

AR and VR Impact on Consumer Decision-Making

Empirical studies confirm that both AR and VR significantly influence consumer attitudes, trust, and behavioral intentions. Poushneh (2018) found that AR applications improve *perceived diagnosticity* (the degree to which a consumer believes they can evaluate a product accurately), which directly enhances purchase intention. Similarly, VR experiences create *affective bonds* with brands, making consumers more likely to choose them over competitors (Loureiro et al., 2020).

However, challenges remain. Accessibility, hardware costs, and technological learning curves limit widespread adoption. Moreover, over-reliance on AR/VR may create consumer fatigue if not integrated meaningfully within the marketing mix (Dwivedi et al., 2022).

Research Objectives

The primary objective of this research is to investigate the role of AR and VR technologies in enhancing consumer behaviour within the marketing domain. Specifically, the study aims to achieve the following:

- *Examine the Impact of AR and VR on Different Stages of the Customer Journey:* To understand how AR and VR influence consumer behaviour across the customer journey's awareness, consideration, and purchase stages.
- *Evaluate the Emotional and Cognitive Effects of AR and VR on Consumers:* To analyze how immersive experiences created by AR and VR affect consumer emotions, decision-making, and brand loyalty.
- *Assess the Perceived Value and Satisfaction Derived from AR and VR Experiences:* To explore how AR and VR increase consumers' perceived value of products and services and how this influences their purchasing behaviour and post-purchase satisfaction.
- *Identify the Challenges and Limitations of AR and VR Adoption in Marketing:* To discuss the barriers that prevent the widespread adoption of AR and VR technologies in marketing and how these challenges can be addressed.
- *Explore Future Trends and Opportunities for AR and VR in Consumer Marketing:* To investigate the potential developments of AR and VR technologies and their future implications for consumer engagement and behaviour.

Research Methodology

This study adopts a positivist research philosophy, as it relies on empirical data gathered from respondents to test assumptions about the role of AR and VR in consumer behavior. The positivist stance emphasizes observable facts, quantifiable data, and objective analysis, which aligns with the survey method employed (Saunders, Lewis & Thornhill, 2019).

The research approach is deductive, as it tests pre-defined objectives and relationships between variables (e.g., AR/VR engagement and purchase intention) rather than generating new theory. Deduction allows the study to examine hypotheses derived from existing literature, such as the Technology Acceptance Model (TAM) and Presence Theory, and validate them using primary data.

The study follows a descriptive research design, which is suitable for understanding consumer perceptions, behaviors, and preferences in relation to AR/VR technologies. Descriptive design helps identify patterns, frequencies, and relationships between variables such as age, trust, and purchase behavior.

A cross-sectional design is used, as data was collected at a single point in time from respondents across different demographics. Cross-sectional surveys are common in consumer behavior studies because they provide insights into a snapshot of perceptions and attitudes (Bryman & Bell, 2015).

Data Type

- *Primary Data:* Collected using a structured questionnaire administered both virtually and offline. The survey contained multiple sections measuring variables such as familiarity with AR/VR, ease of use, trust in brands using AR/VR, purchase intention, and willingness to pay extra. Responses were captured using a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

- *Secondary Data:* A review of scholarly literature, industry reports, and case studies was conducted to support findings and provide context for interpreting the survey data.

Sampling Method

The study used a non-probability convenience sampling method, where respondents were selected based on accessibility and willingness to participate. Convenience sampling was chosen due to time and resource constraints, as well as the exploratory nature of the research (Etikan, Musa & Alkassim, 2016).

While convenience sampling limits the generalizability of results, it provides useful insights into consumer attitudes toward emerging technologies like AR/VR, particularly among younger, tech-savvy populations.

Sample Size and Demographics

The total sample size for the study was 110 respondents, which is adequate for exploratory research and statistical analysis at a descriptive level.

- *Age Distribution:* The survey focused mainly on young consumers aged 18–34, divided into two groups: 18–24 years and 25–34 years. These segments were chosen because younger consumers are more likely to adopt and experiment with new technologies (Dwivedi et al., 2022).
- *Gender Distribution:* Both male and female respondents were included to ensure diversity of opinions.
- *Geographic Scope:* Respondents were drawn from both online and offline channels across urban areas, ensuring exposure to AR/VR-enabled brand interactions.

Future studies with larger and more diverse samples could further enhance generalizability.

Data Collection Procedure

Data collection was conducted over a 10-day period (10^{th} February 2025 to 20^{th} February 2025). Surveys were distributed through two modes:

- Virtual distribution via online forms shared through social media and email.
- Offline distribution through printed questionnaires administered in educational institutions and community settings.

This hybrid approach allowed for broader reach and inclusion of varied demographic groups.

Research Instrument

The questionnaire was designed with four key sections:

- Demographics (age, gender, education).
- Familiarity and engagement with AR/VR (awareness, frequency of use).
- Perceptions and attitudes (ease of use, trust in brands, enjoyment).
- Behavioral intentions (likelihood to purchase, willingness to pay extra, recommendations).

Each section was structured to align with variables identified in the literature, ensuring construct validity.

Reliability and Validity Testing

To ensure the reliability of the questionnaire, Cronbach's Alpha was calculated. The alpha score of 0.796 indicated strong internal consistency among items. This means the survey items effectively measured the intended constructs.

- *Reliability:* Scores above 0.7 are generally acceptable, with values closer to 1.0 indicating high reliability (Tavakol & Dennick, 2011).
- *Content Validity*: The questionnaire items were derived from previous studies in AR/VR marketing, ensuring theoretical alignment.
- *Face Validity*: Pre-testing with a small group of respondents ensured clarity and ease of understanding.

Data Analysis Technique

The collected data was coded and analyzed using descriptive statistics and basic inferential techniques**:**

Descriptive Analysis: Mean scores, standard deviations, and frequency distributions were calculated to identify central tendencies.

- *Cross-Tabulation:* Relationships between age groups and AR/VR perceptions were examined.
- *Reliability Testing:* Cronbach's alpha was applied to confirm consistency.
- *Interpretive Analysis:* Findings were compared with literature to contextualize patterns and anomalies.

Data Analysis

This section presents the analysis of the primary data collected from 110 respondents to understand consumer perceptions, attitudes, and behavioral intentions toward AR and VR in marketing. The analysis focuses on key variables such as engagement, trust, ease of use, enjoyment, purchase intention, and willingness to pay extra, using descriptive statistics and cross-tabulation techniques. The findings highlight patterns across age groups, particularly between the 18–24 and 25–34 segments, to assess how demographic differences influence the adoption and effectiveness of AR/VR experiences. Reliability testing using Cronbach's Alpha ensures the consistency of the measurement scales. Overall, this section interprets respondent feedback to evaluate how AR and VR shape consumer experiences and decision-making within the marketing context.

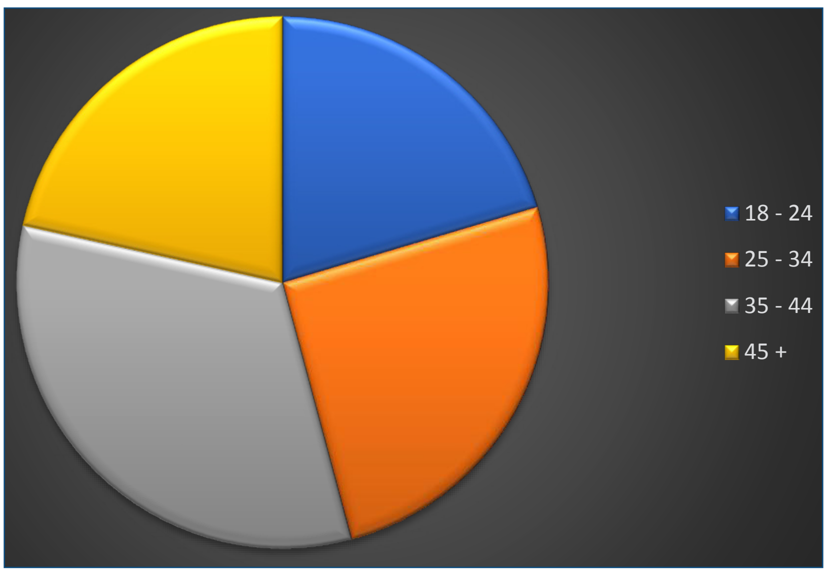

Fig. 1: Age Group vs Engagement with AR/VR vs Likelihood to Purchase

Why Selected?

Helps in understanding whether different age groups engage with AR/VR and if that engagement influences purchase decisions.

Insights

The 18-24 age group has an average rating of 2.76, indicating a slightly positive inclination toward purchasing after an AR/VR experience.

The 25-34 age group has an average rating of 2.85, which is similar, suggesting a neutral to slightly positive sentiment.

The ratings indicate that while AR/VR experiences may encourage purchases, they are not overwhelmingly persuasive.

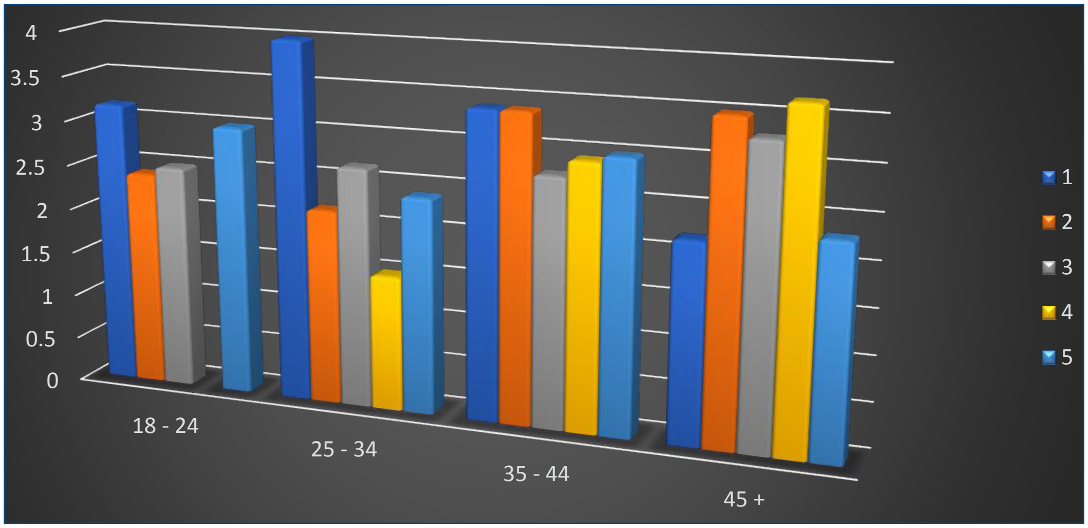

Fig. 2: Trust in Brands Using AR/VR vs Preference for AR/VR Brands vs Age Group

Why Selected?

Helps understand if trust in AR/VR brands leads to actual preference and whether this varies by age group.

Insights

The 18-24 age group has an average rating of 2.82, which suggests a moderate preference for brands incorporating AR/VR.

The 25-34 age group has a rating of 2.63, which is slightly lower, implying a similar but slightly weaker inclination toward brands using AR/VR.

The results indicate that younger consumers are more open to engaging with brands offering AR/VR features.

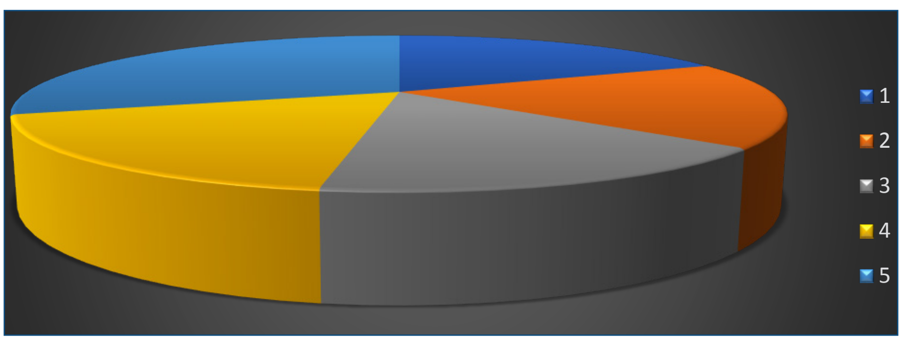

Fig. 3: Engagement with AR/VR vs Shopping Enjoyment vs Willingness to Pay Extra

Why Selected?

Determines if enjoying AR/VR shopping experiences influences customers to pay a premium.

Insights

The general willingness to pay extra hovers around 2.55 to 3.00, indicating a neutral stance.

While some consumers are open to paying a premium, the majority remain undecided or neutral about it.

This suggests that while AR/VR can enhance experiences, it may not be a strong enough value proposition to justify higher prices for many consumers.

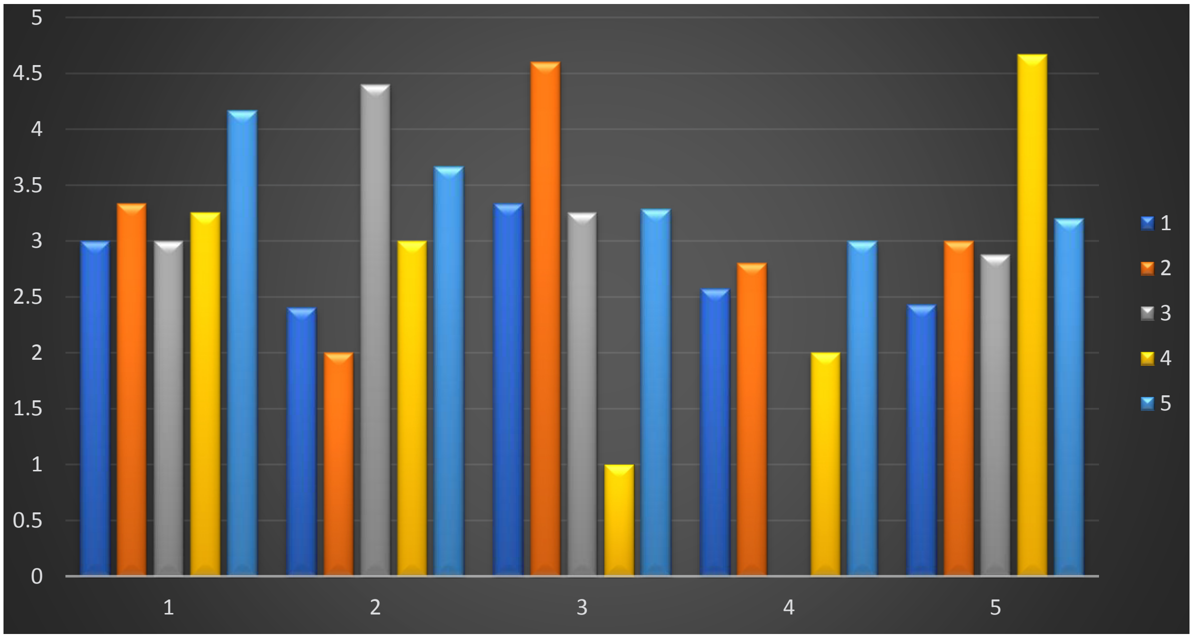

Fig. 4: Familiarity with AR/VR vs Ease of Use vs Would Recommend AR/VR

Why Selected?

Tests if familiarity makes AR/VR easier to use and whether it influences recommendations.

Insights

The overall average rating is 3.36, indicating a neutral to slightly positive tendency to recommend AR/VR shopping.

The 18-24 age group shows a 3.36 rating, while the 25-34 group scores 3.15, suggesting that younger people are slightly more likely to recommend it.

This means AR/VR shopping has potential but has not yet reached a level where it would be strongly endorsed by most users.

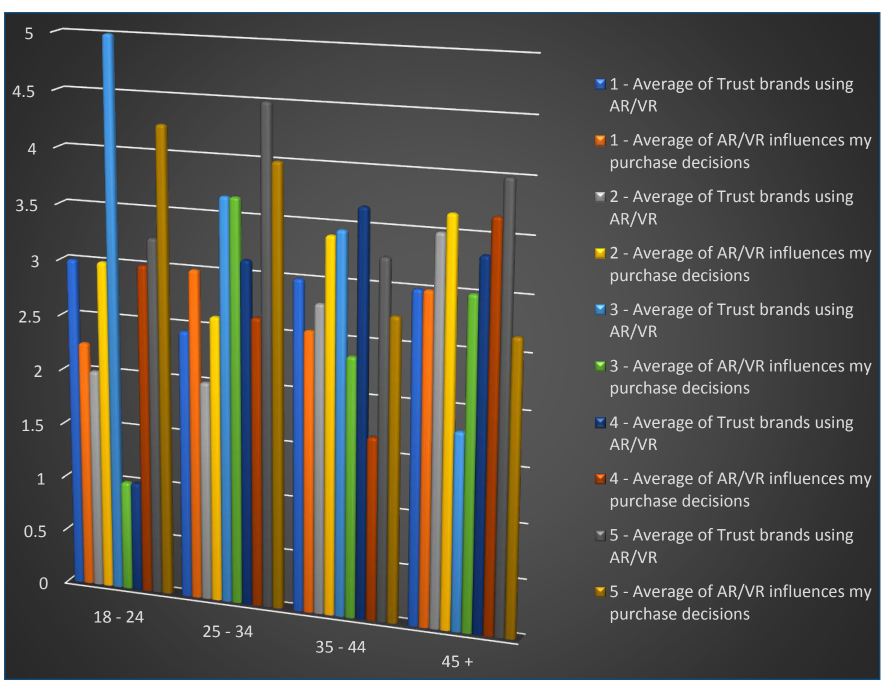

Fig. 5: Age Group vs Engagement with AR/VR vs Trust in AR/VR Brands vs Purchase Influence

Why Selected?

A multi-layered approach to see if younger audiences engage more, trust AR/VR brands more, and if that affects their purchasing decisions.

Insights

The overall trust in brands using AR/VR has an average rating of 2.47, indicating a mild level of trust.

The impact of AR/VR on purchase decisions is rated 3.00, showing a neutral stance.

This suggests that while AR/VR may influence purchase behavior, it does not yet instill a strong level of trust in brands.

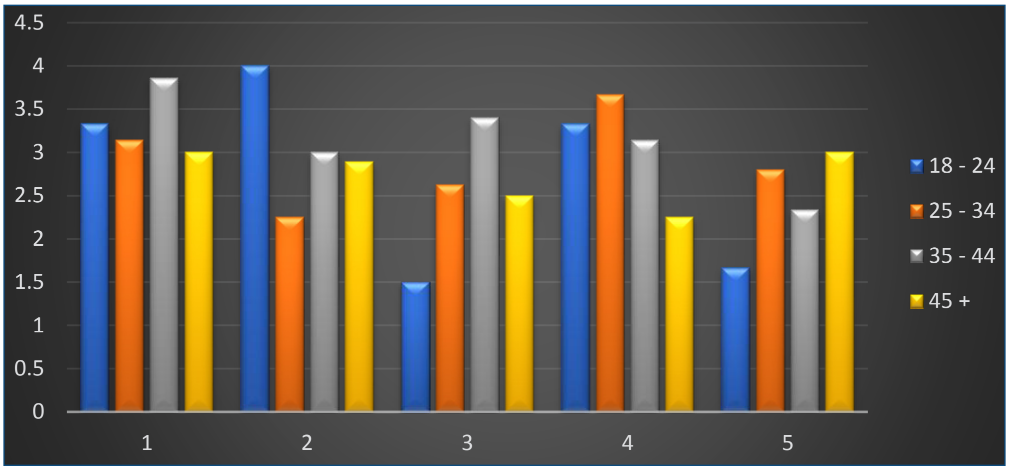

Fig. 6: Biggest Barrier to AR/VR vs Likelihood to Purchase vs Age Group

Why Selected?

Understand if cost and accessibility prevent adoption and whether it affects purchase intent by age group.

Insights

The 18-24 age group has an average rating of 3.36, while the 25-34 age group has 3.14.

These numbers suggest that AR/VR has a moderate influence on increasing purchases, but it is not a game-changer.

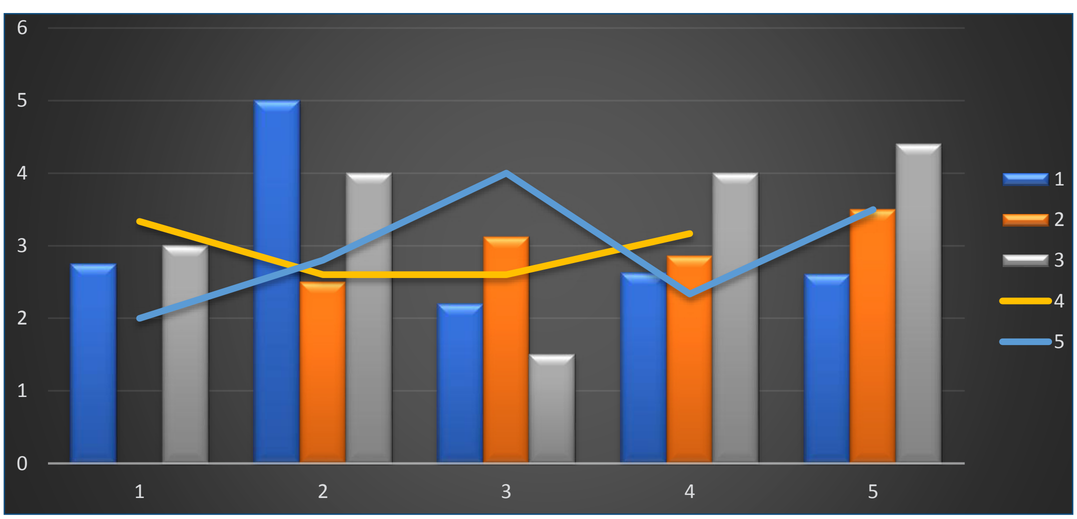

Fig. 7: AR/VR in Marketing vs Purchase Influence vs Willingness to Pay Extra

Why Selected?

Test if AR/VR as a marketing tool directly influences purchases and if it justifies premium pricing.

Insights

The average rating is 2.85, suggesting a balanced viewpoint where some might pay extra, but most remain undecided.

The 18-24 age group is more willing compared to others.

- Reliability Testing
- Scaling of all Variables
- Case Summary

		N	*%*
Cases	Valid	110	100.00
	Excluded^a	0	.0
	Total	110	100.00

- Reliability Statistics

Cronbach's Alpha	*Cronbach's Alpha Based on Standardized Items*	*N of Items*
0.796	0.796	14

Discussion

The findings of this study provide important insights into how Augmented Reality (AR) and Virtual Reality (VR) technologies influence consumer experience, attitudes, and behavior. Consistent with existing literature, the results show that immersive technologies enhance engagement, enjoyment, and product understanding; however, their impact on purchase intention, willingness to pay extra, and brand trust remains moderate. This suggests that AR/VR is more effective as an experiential enhancer rather than a direct sales driver. First, the study supports the propositions of the Technology Acceptance Model (Davis, 1989), showing that consumers who find AR/VR easy to use and familiar are more likely to recommend such experiences. The positive ratings on enjoyment and engagement also align with Flow Theory (Csikszentmihalyi, 1990), indicating that immersive environments can create deeper involvement. However, these psychological benefits do not fully translate into strong purchase intentions, pointing to a gap between hedonic experience and economic decision-making. Second, the age-based differences reveal that younger consumers (18–24) demonstrate higher openness toward AR/VR, supporting earlier studies suggesting that digital-native generations adopt emerging technologies more readily (Dwivedi et al., 2022). Yet, the slightly lower trust and purchase influence among the 25–34 group indicate that technological novelty alone may not sustain consumer persuasion. Third, despite AR's broader accessibility and lower adoption barriers compared to VR, both technologies face challenges related to cost, usability, and perceived value. The low willingness to pay extra reinforces the idea that consumers still view AR/VR as supplementary rather than essential components of the shopping journey. This finding echoes Poushneh (2018), who argued that consumers weigh augmentation benefits against privacy, effort, and control factors. Moreover, the moderate trust levels toward brands using AR/VR suggest that the technologies have not yet reached a maturity where they are perceived as reliable tools for decision-making. This aligns with Flavián et al. (2019), who note that technological unfamiliarity can hinder consumer confidence—even when experiences are enjoyable.

Finally, the results highlight a strategic implication for marketers: AR/VR should be integrated as experience enhancers rather than replacements for traditional marketing cues such as price, quality, and brand reputation. When deployed meaningfully—through personalization, virtual try-ons, or immersive storytelling—these technologies can strengthen engagement and brand recall, but their effectiveness depends on seamless execution, consumer trust, and accessibility.

Overall, the discussion shows that while AR and VR are promising innovations capable of transforming consumer experience, their true potential can only be realized when brands balance technological immersion with practical value, trust-building, and affordability. Future advancements and greater consumer familiarity may shift AR/VR from novelty-driven tools to mainstream determinants of consumer behavior.

Conclusion

The research highlights the evolving role of Augmented Reality (AR) and Virtual Reality (VR) in shaping consumer experiences and decision-making in the marketing domain. With the digital landscape becoming increasingly immersive, these technologies offer innovative ways for brands to engage with customers, enhance product visualization, and build emotional connections. However, the findings suggest that while AR and VR have the potential to improve the shopping experience, their direct impact on purchase decisions, willingness to pay extra, and brand trust remains moderate. Consumers, especially in the younger demographic (18-24 years old), show a greater tendency to engage with AR/VR-enabled shopping experiences. They also exhibit a slightly higher trust in brands utilizing these technologies. However, engagement levels do not always translate into a strong preference or willingness to pay a premium. The 25-34 age group also demonstrates interest in AR/VR experiences but is slightly less inclined toward brands incorporating these features. This suggests that while AR/VR creates novelty and enhances interaction, it does not yet act as a strong determinant of purchase behaviour across all age groups.

One of the key findings is that AR and VR can significantly enhance consumer engagement and brand recall, primarily by allowing users to interact with products in a more realistic and experiential manner. Virtual try-ons, interactive ads, and immersive storytelling create a deeper emotional connection between consumers and brands, leading to increased satisfaction. However, these technologies alone are not a game-changer when it comes to influencing final purchase decisions. Consumers still rely on traditional factors such as product quality, price, and brand reputation when making purchasing choices. The research also identifies significant barriers to AR/VR adoption. High costs, limited accessibility, and technological complexities prevent widespread implementation. The need for specialized hardware, such as VR headsets, further limits its reach, making AR a more feasible solution for mass adoption due to its mobile compatibility. Additionally, while familiarity with AR/VR positively influences ease of use and recommendations, the overall enthusiasm for these technologies remains neutral to slightly positive, suggesting that brands must continue refining their strategies to maximize consumer acceptance and integration. Despite these challenges, AR and VR offer immense potential for the future of marketing. As technology advances and becomes more cost-effective, adoption rates are likely to increase. Businesses that can effectively integrate AR/VR into their customer journey, while addressing trust and usability concerns will have a competitive advantage. Ultimately, AR and VR are valuable tools for enhancing consumer experiences, but their success in driving sales and long-term brand loyalty will depend on how well companies align these technologies with consumer expectations and practical applications.

References

Bonetti, F., Warnaby, G., & Quinn, L. (2018). Augmented reality and virtual reality in physical and online retailing: A review, synthesis and research agenda. *International Journal of Retail & Distribution Management, 46*(11/12), 1105–1131. doi:https://doi.org/10.1108/IJRDM-06-2017-0110

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R.,…Wang, Y. (2022). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management, 63,* 102433. doi:https://doi.org/10.1016/j.ijinfomgt.2021.102433

Flavián, C., Ibáñez-Sánchez, S., & Orús, C. (2019). The impact of virtual, augmented and mixed reality technologies on the customer experience. *Journal of Business Research, 100*, 547–560. doi:https://doi.org/10.1016/j.jbusres.2018.10.050

Huang, T. L., & Liao, S. (2017). A model of acceptance of augmented-reality interactive technology: The moderating role of cognitive innovativeness. *Electronic Commerce Research, 17*(2), 263–288. doi:https://doi.org/10.1007/s10660-016-9249-9

Javornik, A. (2016). 'It's an illusion, but it looks real!' Consumer affective, cognitive and behavioral responses to augmented reality applications. *Journal of Marketing Management, 32*(9-10), 987–1011. doi:https://doi.org/10.1080/0267257X.2016.1174726

Loureiro, S. M. C., Guerreiro, J., & Ali, F. (2020). 20 years of research on virtual reality and augmented reality in tourism: A text-mining approach. *Tourism Management, 77*, 104028. doi:https://doi.org/10.1016/j.tourman.2019.104028

Pantano, E., & Servidio, R. (2012). Modeling innovative points of sales through virtual and immersive technologies. *Journal of Retailing and Consumer Services, 19*(3), 279–286. doi:https://doi.org/10.1016/j.jretconser.2011.12.002

Poushneh, A. (2018). Augmented reality in retail: A trade-off between user's control of access to personal information and augmentation quality. *Journal of Retailing and Consumer Services, 41,* 169–176. doi:https://doi.org/10.1016/j.jretconser.2017.12.010

Rauschnabel, P. A., Felix, R., & Hinsch, C. (2022). Augmented reality marketing: How mobile AR-apps can improve brands through inspiration. *Journal of Retailing and Consumer Services, 64,* 102778. doi:https://doi.org/10.1016/j.jretconser.2021.102778

Scholz, J., & Duffy, K. (2018). We are at home: How augmented reality reshapes mobile marketing and consumer–brand relationships. *Journal of Retailing and Consumer Services, 44,* 11–23. doi:https://doi.org/10.1016/j.jretconser.2018.05.004

Slater, M., & Sanchez-Vives, M. V. (2016). Enhancing our lives with immersive virtual reality. *Frontiers in Robotics and AI, 3,* 74. doi:https://doi.org/10.3389/frobt.2016.00074

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1), 157–178.