

Impact of Augmented Reality (AR) on Consumer Buying Behavior in Indian Market

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Abstract

This research study investigated the impact of augmented reality (AR) on the purchasing behaviour of Indian consumers by investigating and analysing the perspectives of various consumers in the Indian market. In this we discussed about utilisation augmented reality's impact on Indian consumers. The growth of artificial and virtual reality in India has led to individuals becoming more comfortable with technological advancements and becoming tech savvy. It also study the potential financial impacts of AR adoption in e-commerce and other industries. The use of online shopping and data from various statistics shows a correlation between influential AR factors the buying experience of online consumers. Young people aged 17 to 45 are primarily exposed to using AR to buy clothes and accessories, with the majority of sample stores available locally via mobile apps. The results indicate that AR has a significant impact on purchasing decisions and suggest its potential usage in marketing communications. The result also show that gender, social standing, education level, and monthly income all have an effect on how individuals respond to AR. Clothing and accessories were discovered to be the most frequently purchased items through AR. Participants reported positively about their AR experience, and their apprehensions and anxiety did not affect their buying experience. Several recommendations can be made based on the findings of the primary study: Indian enterprises can include more augmented reality technology into their marketing efforts to match consumer requirements and trends. To maximise the benefits of brand recognition, they should leverage AR approaches and use this technology for items that rely design in production. When using AR in general, it is important to think about the cultural traits and dimensions of Indian consumers and conduct further study in topic related to this.

Keyword

Augmented Reality (AR), Consumer Buying Behavior, Indian Consumer Market, Indian Economy, E-commerce

Introduction

Consumers' interactions in the world are changing as a result of the advancement of modern technology. The breadth and applicability of these technologies are far beyond anyone's conception. There are numerous technologies that we never considered that have found their way into our daily lives via various consumer products. These technologies have significantly impacted both consumers and manufacturers. It began with the invention of the computer, which opened up a completely new frontier. Phones now function as artificial eyes and ears, storing

information about their surroundings; hence, the benefits of both digital and real can be combined to open new frontiers (Olsson, Lagerstam, Karkkainen, and Kaisa, 2013). One such technology is augmented reality (AR). Even today, many individuals are only vaguely familiar with Augmented Reality. Augmented reality (AR) is regarded as a developing technology with potential applications in a wide range of fields, including marketing, education, human resources, retail, and many more. Overall, its use is viewed as a new type of technology in modern human-computer contact, with greater acceptance impacting the use of technological interaction. The biggest business consulting firms and statistical organisations are optimistic about the future of AR, predicting that it will become an industry in its own right, separate from games and movies. India being an upcoming market and also from a global perspective the application of Augmented Reality in Retail is slated to be a major game changer.

AR has just acquired traction in the commercial world, with businesses such as BMW being among the first to experiment with AR advertising. AR, which involves interacting with a two-dimensional screen to manipulate three-dimensional objects, is considered a disruptive marketing technology. It offers numerous opportunities to improve marketing by improving brand reputation, consumer interactions, and overall sales. A study found significant gender and generational differences in responses to modern marketing strategies. The study also proved the existence of impulsive and thoughtful buying of virtual try-ons, a new type of AR application that has arisen. The market is projected to grow at a CAGR of 28%, earning revenues of around USD 9.28 billion by the end of 2028 (Accordinging study of **BlueWeave Consulting**). Augmented Reality in India has been growing due to increased industry acceptance of head-mounted displays (HMDs), technological improvements, rising digitization and penetration of HMDs in the gaming and entertainment sectors following COVID-19, and significant investments in the AR market. Furthermore, the country's demand for AR solutions is driven by an increase in the adoption of technologically advanced solutions, an expansion of application areas among end-use industries, a growing gaming industry with rising investments in AR technologies in various fields, and an increase in smartphone penetration in emerging economies. Furthermore, India Augmented Reality is one of the most developing markets, with ongoing growth due to the rapid use of new technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), cloud computing, and others.

In India, online shopping is experiencing rapid growth, creating significant opportunities. The number of e-commerce users in India rose from 18.22 million in 2017 to 33.6 million in 2024. Additionally, as per India Vision 2030, the number of businesses offering online shopping experiences to consumers is also growing. Therefore, businesses in India are exploring novel and exciting marketing and advertising experiences to keep up with this growing trend.

Literature Review

The literature review section provides references to augmented reality from historical, business and scientific perspectives. The second part is dedicated to the discussion of the theory of interactive product experiences and finally leads to the development of our models and hypotheses. Overview of the development of augmented reality.

The original AR technology was founded in 1968 at Harvard based on of information. technology researcher Ivan Sutherland (named). "father of computer graphics") designed an AR head-up display system. In the past, companies, laboratories, universities and government offices have further developed AR for mobile devices\and digital displays. Those initial systems included virtual information about the physical environment and simulations used in aerospace, industrial and military applications. The first commercial AR application appeared in 2008. It was developed by German agencies in Munich for advertising purposes. They created a print/magazine ad for the BMW Mini that looked like a screen attached to a computer camera. Because the virtual model was combined with physical advertising characters, the user could control and move the car on the screen to see different perspectives only on paper. The broadcast was one of the most important marketing campaigns that allowed us to interact with the digital model in real time.

Usability of AR in Retail

AR technology is used in all forms of retail, whether online or brick-and-mortar. They have been used to improve the shopping experience for consumers by making it more attractive (Equity Research, 2016). These technologies provide more interactivity, real-time information, tracking capabilities and store benefits. Although digital experiments already existed on websites, the AR mirror can make things more interactive (Javornik, 2016). These mirrors are used in makeup salons, museums and dressing rooms of opera houses (Javornik Rogers, Gander, & Moutinho, 2017).

AR enables greater interactivity. When customers touch a product or interact with it for an extended period of time, they create an emotional connection with the product. AR helps to increase this interaction and consumers can relate to the product, increasing the chances of buying. Another advantage of this technology is that customers can easily access information in real time and thus build trust in the merchant/service provider. AR technologies allow retailers to create an immersive shopping environment where they can access product information at their fingertips. In a US study, 71% of people said they would shop at a retailer that offers AR. 40% of people were willing to pay more for a product if they can experience the product through an AR platform. 55% of people said that using AR makes shopping more fun.

Methodology

The current study used a descriptive and analytical technique based on a quantitative research philosophy to investigate the augmented reality (AR) elements and dimensions that influence online shopping behaviour in India. From a theoretical and semantic point of view, the quantitative research approach sees human behaviour as an entity that can be controlled. Data were collected using a survey questionnaire based on previous research and a theoretical framework built from Ihde's theory and the Technology Acceptance Model. The sample included Augmented Reality users who participated in the online shopping process. The study collected data using a snowball sampling technique, which takes advantage of existing contacts and allows for the emphasis of specified actions or activities within certain frameworks. This method is cost-effective, efficient, and can be completed quickly.

Sampling

This study aimed to investigate the experiences of online buyers in India who have previously purchased things using augmented reality (AR). The sample group comprised of 100 AR users who made online purchases.

Research Strategy

A research plan describes the methods, approaches, and strategies used in this study. Several factors influence research approach selection, including the type of study topic, available resources, and time restrictions. The quantitative research design aided the study's research strategy.

Findings of the study

The study showed a positive relationship between AR use and purchase intentions, as consumers reported increased trust and value for money. Interviews showed that AR promotes brand engagement, which can lead to increased sales and economic growth. However, privacy and accessibility concerns for users not familiar with this technology.

AR-based shopping experiences will increase consumer satisfaction in India. The ability to virtually preview products and customize shopping journeys caters to the preferences of digitally savvy Indian consumers, resulting in positive post-purchase reviews.

Discussion

The findings support the notion that AR has a positive impact on consumer purchasing behavior and the Indian economy. By facilitating informed choices and reducing returns, AR empowers consumers and potentially increases sales and financial efficiency. However, addressing privacy issues and ensuring inclusion is critical to the continued adoption of AR. The discussion covers several key areas based on research findings:

- **Improved consumer engagement:** One of the key findings of the study is the role of AR in increasing consumer engagement with products and brands. Thanks to the immersive and interactive experiences of AR applications, consumers are more likely to spend time researching products, increasing brand awareness and deepening connections. Marketers can use this information to develop AR-based campaigns that engage Indian consumers and encourage active engagement, ultimately increasing brand loyalty and advertising.
- **Impact on purchase intent:** Research shows a positive correlation between the AR experience and purchase intent among Indian consumers. Participants reported increased confidence and satisfaction with their purchase decisions after being shown or virtually tried on AR-enabled products. This suggests that AR can bridge the gap between web browsing and online shopping by providing consumers with more realistic expectations of product features and performance. Marketers can leverage AR to reduce the uncertainty associated with online shopping, thereby increasing conversion rates and sales.
- **Personalization and customization:** Another notable finding is that Indian consumers prefer a personalized AR experience. Participants expressed a strong desire for customization options that allow them to customize product settings or visualize how the products would look in their own environment. This highlights the importance of considering individual preferences and cultural nuances in the Indian market. Marketers can use AR technology to provide personalized shopping experiences that respond to different consumer segments, increasing relevance and perceived value.
- **Educational value and product information:** Research highlights the educational value of AR by providing consumers with detailed product information and presentations. Participants liked being able to access relevant product information, reviews and instructions directly from the AR interface. This means a shift to more informed and influential consumers who value transparency and authenticity in their purchasing decisions. Marketers can use AR as a tool to educate consumers about product features, benefits and usage scenarios that will increase trust and credibility in their brand proposition.
- **Challenges and opportunities:** Despite the positive results, the study also identifies some challenges and opportunities. refers to the adoption of AR in the Indian consumer market. These include technological barriers such as compatibility issues and connectivity limitations, as well as cultural considerations related to privacy and data security. Marketers must meet these challenges by actively investing in user-friendly AR solutions and implementing transparent data practices that prioritize consumer trust and compliance.
- **Future directions for research and innovation:** Finally, the discussion emphasizes the need for continued research and innovations in AR technology and consumer behavior in the Indian context. As AR advances and becomes more accessible, there is a growing need to examine its long-term impact on consumer preferences, market dynamics and industry disruption. Future research could delve into specific product categories or demographic segments to gain nuanced insights and develop targeted AR strategies that resonate with Indian consumers.

Conclusion

According to this study, augmented reality helps consumers visualize a product through a critical relationship. The implementation relationship also lets the buyers understand that they are part of the product. "Partial coexistence" allows augmented reality to sink into the product's input. AR features and functions that allow Indian consumers to learn about a product without physically seeing it, bringing consumers and producers closer to each other. Augmented reality is easy to use and integrated with creativity makes shopping more exciting and fun. This research shows that augmented reality has become a cultural spectacle in Indian society as practiced by all tested participants.

It can help brands use augmented reality in their marketing communications to deliver the best shopping experience. However, this study also shows that augmented reality has its drawbacks, such as making impulsive, unplanned purchases. The reputation of augmented reality is strong mainly in accessories and clothing, which are linked to existing design trends. This study shows that augmented reality is an influential marketing method or tool and the most common interactive forum or platform for consumers. It is also emphasized that augmented reality friendly products support young people or women. Overall, the study finds that augmented reality is an important cultural phenomenon in Indian society that brands can play to enhance the shopper's shopping experience.

Reference

1. Kryštof Raška, Tobias Richter Augmented Reality on Purchase Intention - The IKEA Case – 2017
2. Jungmin Yoo e effects of augmented reality on consumer responses mobile shopping Duksung Women's University, Seoul, South Korea.
3. Statista. (2023). Smartphone users in India from 2010 to 2023. Statista. <https://www.statista.com/statistics/467163/forecast-of-smartphone-users-in-india/>
4. Javornik, A., Rauter, R., & Vom Brocke, J. (2020). How augmented reality enhances customer experience in fashion retail stores. *Journal of Business Research*, 110, 802-809. https://www.researchgate.net/publication/326141386_The_impact_of_experiential_a
5. IJRPR (International Journal of Research Publications and Reviews). (2023).
6. Javornik, A.; Rogers, Y.; Moutinho, A.M.; Freeman, R. Revealing the Shopper Experience of Using a “Magic Mirror” AR Make-Up Application. In Proceedings of the ACM Conference on Designing Interactive Systems, New York, NY, USA
7. De Ruyter, K.; Heller, J.; Hilken, T.; Chylinski, M.; Keeling, D.I.; Mahr, D. Seeing with the Buyer's Eye: Exploring the Challenges and Opportunities of AR Advertising. *J. Advert.* 2020, 49, 109–124. Proceedings of the ACM Conference on Designing Interactive Systems, New York, NY, USA
8. Saleem, M., Kaushik, A. K., Kalia, P., & Kaushal, A. (2023). Influence of augmented reality on shopping behavior. *Management Decision*, 61(7), 2073-2098. <https://doi.org/10.1108/MD-02-2022-0136>
9. Emerald Insight (<https://www.emerald.com/insight/>) - Database with research articles on AR in marketing and consumer behavior.
10. Chamber, J. E-Commerce Statistics in KSA; Research and Studies Center.