

Impact of Augmented Reality in marketing for home furnishing products in India

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Abstract—Augmented Reality (AR) has transformed and continuously enhancing its approach to bring notable changes in various sectors of marketing. When it comes to home furnishing, Augmented reality provides and exceptional opportunity to the customer to see visually how their spaces will look like after installation of the furniture, fixture, accessories, and many other decorative materials. Augmented reality has opened the door for marketers to make an attractive appeal to the target market by demonstrating the fact of real picture of upcoming things in their houses. This research paper discovers the impact of Augmented Reality on home furnishing marketing, examining how its stimuli buyer behaviors, improves commitment, and offers competitive advantages to real estate firms. By analyzing case studies and existing literature, this paper highlights the benefits and challenges associated with AR implementation in home furnishing marketing.

Index Terms— Augmented Reality (AR): Augmented Reality (AR) is a technology that overlays digital information such as image, video, and data.

Home furnishing: Home furnishing involves selecting and arranging furniture, decor, and other items to create a comfortable, functional, and aesthetically pleasing living space.

Impulse buying: Impulse buying refers to the spontaneous and unplanned purchase of products or services.

Carpet area: carpet area typically involves determining the total floor space that will be covered by the carpet.

1. INTRODUCTION

The home furnishing industry has traditionally highly confusing, and customers always look for the best way to decorate their home. The technological advancement and especially the augmented reality has revolutionized the customers experience and its impact on customer instant decision-making ability.

Augmented Reality expertise and advancement has transformed business-to-customer engagement in the

corporate world and especially the way one views products within the retail sector. One such industry within the retail marketing that has been leading the way in its adoption of augmented reality in customer engagement and product visualization home furnishing. As a paradigm changes in digital technology and wide accessibility of this technology and committed to giving innovative solutions in the furniture and home décor market, augmented reality has been embraced to give customers both immersive and interactive experiences.

In recent times, home furnishing market has integrated augmented reality capabilities into the mobile app, letting users digitally try placing furniture and home accessories within their living spaces, bedroom, seating areas and outdoors decorative including the color contrast. Not only is that a huge step up in the purchase experience, but it also helps customers envision how the products will look and fit in their homes before they have even bought them. Using augmented reality, home furnishing industry has closed the gap between online browsing and in-store shopping, thereby making the experience in the store seamless and personalized for its customers.

This research aims to investigate the impact of Augmented Reality in in marketing for home furnishing of augmented reality technology on customer engagement and perception of products in relation home furnishing products including online and offline market. By studying customer reviews, nutritional information, and literature reviews, the present paper investigates, the effectiveness of augmented reality to enhance the overall shopping experience and increase customer engagement improved shopping experience for home furnishing product in both online and offline retail bases. The study of how challenges and opportunities arise in the use of AR technology in the retail industry, focusing

on home furnishing marketing strategies and best practices, provides useful insights into the role of AR in the transformation of customer engagement and perceptions of products at locally and global marketing platform and its implications for the retail industry.

2.LITERATURE REVIEW

Overview of the augmented reality and definition in context to home furnishing: Augmented reality has created a huge space in marketing environment and when it comes to home furnishing industry, specifically in India, where the customers are highly competitive before they make their purchase decision, in such situation the, augmented reality has open door for the customer to see visually how their purchased product or planned product in home furnishing category will make appeal to their interiors, living spaces, gardening areas and other areas of accessibility. Moreover, the uses of augmented reality have created huge engagement of customer and instant decision-making ability which has opened a door for the marketers to close their online or offline sells with little effort and saving in their time.

Historical Context and Evolution of AR The concept of AR can be traced back to the 1960s when Ivan Sutherland developed the first head-mounted display system. However, it wasn't until the 1990s that AR gained more attention with applications in military and industrial settings. The early 2000s saw the introduction of AR in mobile devices, leading to widespread adoption in consumer markets, including real estate, home furnishing, heaving equipment retailing and other industry. With the development in information technology and visual appeals, the augmented reality has gained huge success after 2000. Changes in infrastructure of information technology and high accessibility of different devices where instant video streaming content, creation of visual appeals with sound effects and many more display system has given a huge space in marketing for home furnishing products using augmented reality. With changes in information technology and added infrastructure incoming time the use of augmented reality is expected to grow more and more.

Technological Foundations of Augmented Reality: Augmented Reality technology relies on a combination of hardware and software components. The hardware includes devices such as, visual display aid, large scale display, personal gadgets like smartphones, tablets, AR glasses, VR, and headsets that are equipped with cameras, sensors, and processors. The software involves AR development platforms and frameworks that use computer vision, depth tracking, and spatial mapping to integrate digital content with the physical environment.

AR in home furnishing Marketing: AR tenders in home furnishing marketing include virtual demonstration, interactive colour and design plans, and augmented display models. These applications provide potential buyers with a convincing and immersive experience, admitting them to visualize their home and spaces without physically visiting them and installing them.

Virtual placement display: Visual placement of furniture and other home furnishing products display leverage AR to create immersive 3D walkthroughs of spaces. The visual demonstration creates real experiences of your spaces that can be accessed via mobile devices or AR headsets, allowing potential buyers to explore products with their premises from the comfort of their homes. Virtual tours offer a realistic representation of the space layout, design, and features, enhancing the buyer's understanding and interest.

Benefits of AR in home furnishing Marketing

Augmented Visualization: AR allows buyers to envision properties in 3D with specified layout plans, giving them an enormous understanding of the space management and layout planning. Conventional marketing methods, such as static images and brochures, often fail to convey the true essence of a merchandise. AR bridges this gap by presenting a realistic and immersive visualization that improves the buyer's perception and interest.

Augmented Engagement Communicating AR features capture the attention of prospective buyers, increasing their interest and engagement with the products. AR

applications offer interactive elements such as virtual walkthroughs, interactive space and color plans, and augmented property models that keep buyers engaged and interested. This increased engagement can lead to higher conversion rates and faster sales.

Time and Cost Efficiency AR decreases the need for physical visits, allowing in saving time, effort and costs for both buyers and sellers. Buyers can explore multiple products design, with color virtually without the need to travel and installation of the products in their home spaces, while sellers can showcase home furnishing products to a larger audience without the logistical challenges of positioning physical visits. This effectiveness is particularly favorable in the context of the COVID-19 pandemic, where social distancing actions have limited physical interactions.

Viable Advantage Home furnishing retailing firms that adopt AR technology can distinguish themselves from contenders and attract tech-savvy buyers. AR provides a prevailing and innovative marketing solution that influences to buyers who value accessibility and advanced technology. By offering AR-enhanced property listings, home furnishing retailers can position themselves as industry leaders and gain a competitive benefit in the market.

Challenges of AR in Real Estate Marketing:

High Implementation Costs and technological challenges: Developing and maintaining AR applications can be costly. The development of high-quality AR content requires significant investment in technology, software, and skilled professionals. Additionally, ongoing maintenance and updates are necessary to ensure the AR applications remain functional and up to date. These costs can be a barrier for small and medium-sized real estate firms.

Despite having various benefit of implementing marketing strategy for home furnishing products using augmented reality, there are some challenges as well which we cannot be ignored. Firstly, it's very challenging to create such visual demonstration because its high cost of production and implementation.

If it comes to youth those who are very much adopted with the technology, they can understand the uses and implementation of AR in demonstrating the home furnishing products but for the older, those who are not fond of technological uses, for them it is bit challenging to understand and get access of the technology. Moreover, in Indian market where 70% of the population lives in villages where the literacy rate is comparatively very low to the cities, where there is very limited uses of the devices and other infrastructure which supports AR technology. Despite having various benefits, some challenges in terms of cost and technological accessibility are there but overall, after the pandemic Augmented reality is future of marketing. In current marketing situation, in Tier 2 and tier 3 cities might some challenges could be there, which has been experienced the changes in infrastructure of information technology, but we could hope to be in future, augmented reality will be capable enough to create its own space in marketing environment and especially in home furnishing marketing.

3.METHODOLOGY

This research proceeds using a qualitative approach, analyzing case studies, and existing literature on the use of AR in home furnishing retail marketing. Data is collected from diverse academic journals, published industry reports, and personal interviews and observation with retail marketing professionals and the place visit where AR technology is implemented.

Research Design: The research design involves a combination of literature review, case study analysis, and personal interviews. The literature review provides an inclusive overview of Augmented Reality technology and its applications in home furnishing marketing. Case studies demonstrate the real-world execution and implementation of successful AR implementation, while interviews with industry professionals offer insights into the practical challenges and benefits of using AR in retail marketing for home furnishing products.

4.DATA COLLECTION METHODS

Literature Review The literature review implies a massive analysis of academic journals, published industry reports on authenticated platforms, and online artifacts associated to Augmented Reality and real estate marketing. The review focuses on understanding the technological foundations of AR, its applications in real estate, and the benefits and challenges associated with its use.

Case Studies: Case studies are selected from various firms dealing in home furnishing that have successfully implemented AR technology in their marketing strategies for online and offline retailing. These case studies present real-world instances that's way on AR is being applied to improve merchandise visualization, connect buyers, and improve sales outcomes.

Interviews: Interviews are conducted with marketing professionals associated with home furnishing retailing which including marketing managers, data analyst for retailer, and AR developers. The interviews aim to gather straight insights into the practical aspects of using AR in home furnishing marketing, containing the challenges faced, benefits realized, and future potential of AR technology.

5. DATA ANALYSIS METHODS

Qualitative Analysis The data collected from literature review, case studies, and interviews are analyzed qualitatively. The analysis involves identifying key themes, patterns, and insights related to the impact of AR on real estate marketing. The qualitative approach allows for an in-depth understanding of the benefits and challenges associated with AR implementation.

6. CASE STUDIES

Case Study 1: Zillow 3D Home

Zillow, a leading real estate marketplace, introduced the Zillow 3D Home app, allowing users to create interactive 3D tours of properties. The app enhances buyer engagement and has shown a positive impact on property sales, with listings featuring 3D tours receiving more views and inquiries. The analysis represents the insightful customer turnout and concern

with the application of AR in its demonstration products and services. Customers are capable enough to understand their need and requirements, space management and right selection of the product for their premises and home spaces.

Case Study 2: IKEA Place:

IKEA's Augmented Realty app, IKEA Place, permits users to envisage furniture in their homes before making a purchase. They are allowed to see the color contrast with their wall, outdoors environment, internal carpet areas and available space. While principally a retail application, its success exhibits the potential of AR in helping buyers visualize property amendments, thereby aiding in purchase decision-making.

Effectiveness on Buyer Decision-Making: IKEA Place has progressively impacted buyer decision-making by presenting a clear and realistic visualization of furniture in the user's home. This potential artifact reduces uncertainty and improves buyer belief, leading to higher conversion rates and customer satisfaction and concern towards the store and their merchandise. The success of IKEA Place exhibits the potential of AR in home furnishing marketing, where buyers can visualize property modifications and interior design elements.

7. RELATED LITERATURE ANALYSIS

Muhammad Al-Khalidi, Abdul-Raouf Ishteiwi, Ahmed Al-Qurm, Amjad Al-Dawish, Muhammad Al-Othman, Ammar Al-Momani (2023), in their study entitled "Redefining the E-Commerce Experience: Exploring Augmented and Virtual Reality Technologies". Incorporating virtual reality (VR) and augmented reality (AR) technology into online stores enables more effective and engaging shopping experiences, which is important for businesses to succeed in today's competitive e-commerce market. These technologies offer customized experiences that looks at the needs of every client has gained huge customer interest and concerns. The study has found a strong support from the customer and applied widely in creating customer confidence while making their purchase decision.

Syeda Bushra Qadri, Muhammad Masood Mir, Muhammad Arish Khan (2023) has studied the implementation of AR in marketing for home furnishing products in their study with titled “Exploring the Impact of Augmented Reality on Customer Experiences and Attitudes: A Comparative Analysis with Websites”. Many customer-concerned with businesses use augmented reality to enhance motivations, shopping experiences, and buying behavior. Therefore, AR-based marketing strategy encouragement stimulates customer commitment and purchase decision by providing a dynamic technological experience. The study has revealed that the technology using AR has enhance and empower the customer to take purchase decision confidently. Carlos Orús, Sergio Ibañez-Sánchez, Carlos Flavian (2022) has studied implementation of AR technology and its effectiveness with titled “Augmented reality filters on social media. Analysing the drivers of playability based on uses and gratifications theory.” The study demonstrates the application of augmented reality and concern of the customers are highly associated. Customer demonstrated their immense interest and show quicker decision-making ability after visualizing the content and information on AR in marketing.

Akash Bajpai, Tajamal Islam (2022) in his emphasize how technological developments and its implementations influence marketing strategies, offering new ways to engage and influence customers. Augmented Reality Marketing (ARM) employs digital platforms to create immersive practices that exhibits to multiple senses, targeting to enhance customer engagement, behavior, their loyalty, and purchasing decision making. The research demonstrates that ARM can bring products closer to consumers, bridging the gap between experience and action, and fostering stronger customer-brand relationships through innovative marketing approaches. The study demonstrates a positive customer experience and behavior after implementing AR in their marketing strategies.

Interviews, personal observation, and analysis:

Personal observation and interviews data has given an insightful experience and understanding about the uses of AR in marketing for home furnishing products. Following are the outcomes identified after observation and personal interview analysis from the experts and managers.

- AR creates immense experience to the customer and amazed them to be actual customers.
- AR based marketing helps in impulse buying in home furnishing marketing.
- It greets high customer satisfaction after implementing AR in marketing for home furnishing.
- AR marketing has reduced product return rate and post sales customization which is ensuring high customer satisfaction.
- It helps in time management for both customer and marketers to execute best of their services.

Recommendations:

- Personal attention is required to pay to each individual customer.
- Prescheduled and proper appointment could help the buyer and seller to save their time and get what exactly they want.
- Customer oriented customization and implementation is required to enhance their experiences.

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