The Impact of Augmented Reality Technology in Enhancing the Buying Experience of Customers

Minothi. J[1] and Bhomik Garg[2]

[1]*Assistant Professor, Dept. of B. Com (Honours), Loyola College, Chennai, Tamil Nadu*

[2]*ACCA Affliate, New Delhi*

Abstract

The retail business has gone through tremendous changes lately, which have been determined by progress in innovation and changing purchaser assumptions. Customers today are more engaged and associated than at any other time in recent memory, with admittance to tremendous measures of data and plenty of choices to look over. Subsequently, retailers are under strain to give an extraordinary buying experience and attract customers. One way in which retailers are answering this challenge is by integrating new advancements into their activities. Augmented reality (AR) is one such innovation that can change how individuals shop. AR is an innovation that overlays virtual pictures onto this present reality, permitting customers to see computerised content in a certifiable climate. This innovation has proactively been utilised in different enterprises, including gaming, amusement, and schooling, and can also change the retail business. The development of new advancements has reformed the way organisations communicate with their customers. Augmented reality (AR) is one such innovation that has acquired critical consideration recently. AR is a PC-produced, intelligent, and three-layered climate that upgrades the customer's tangible impression of the actual world. AR has been utilised in different enterprises to upgrade customers' buying experience, including retail. Therefore, the research aims to investigate augmented reality's impact in enhancing customers' buying experience.

Keywords: *Augmented Reality, Buying Experience, Customers*

Introduction

Augmented reality (AR) is an innovation that overlays computerised content onto this present reality, upgrading the customer's impression of the real world. This computerised content can incorporate text, pictures, recordings, and 3D models, which are progressively coordinated with the customer's current circumstance. The innovation permits customers to collaborate with the computerised content as though it were a piece of the actual world, empowering them to have an upgraded tangible encounter.

Customers assume an essential part in the progress of any business, as they are the ones who eventually choose whether to make a buy. In that capacity, understanding the requirements and inclinations of customers is fundamental for retailers who wish to stay cutthroat and develop their

organisations. Augmented reality innovation can give customers various advantagesto improve their buying experience. One of the main advantages of AR is that it can providecustomers with a more vivid and connecting method for collaborating with items. By utilising AR to superimpose computerised content onto this present reality, customers can perceive how items will look and act progressively, empowering them to settle on more educated buying choices. For instance, a customer looking for furniture can utilise AR to envision how a specifichousehold item will be thoroughly searched in their home, permitting them to evaluate its size, variety, and style before buying.

Phases of Buying Experience

Buying experience refers to the arrangement of feelings, discernments, and ways of behaving a customer goes through while buying. The buying experience can be partitioned into a few phases: mindfulness, thought, assessment, buy, and post-buy. Each stage includes various communications betweenthe customer and the item or brand. The mindfulness stage is when a customer initially becomes mindful of an item orbrand. This might be through publicising, informal, or different types of advertising. The thought stage is when a customer considers an item or brand effectively. This might include investigating the item, contrasting it with other items, and understanding surveys or various types of criticism.

The assessment stage is when a customer assesses the item or brand, considering their requirements and inclinations. This might include giving the item a shot in a store, testinga demo rendition, or utilising a time for testing. The buying stage is when a customer purchases the item or brand.This might include making the buy coming up or on the web and making an instalment or setting up an instalment plan. The post-buy stage is when customers assess their involvement in the item or brand after the purchase.

Augmented reality (AR) innovation can improve customers' buying experienceat each phase of the buying system. By furnishing customers with a vivid and intelligent experience, AR can increment commitment and give more customised and significant expertise.

Objectives of the Study

- To analyse the impact of augmented reality technology on the customers' perception of product quality and their buying decisions.

- To identify the effectiveness of AR features in enhancing the buying experience and their impact on customer satisfaction.

Review of Literature

Shah, R. (2023) states that Augmented Reality (AR) is an innovative approach in e-commerce, specifically focusing on its potential to enhance the online shopping experience. It examines the core concepts of AR technology, its implementation in e-commerce, and its benefits and applications in this field. Additionally, the paper will explore statistics and usage trends of AR in e-commerce and its potential to replace traditional online shopping methods.

Arghashi, V. (2022) states how augmented reality (AR) features can affect consumer attitudes and behaviours towards buying products through AR applications. The study aims to understandthe effects chain between AR features such as novelty, wow, inspiration, information overload, and distraction on purchase intention. The study also looks at how AR features can trigger hedonic shopping motivations and the role of these motivations in determining consumer behaviour.

Alves, C., & Luís Reis, J. (2020) states the launch of IKEA's augmented reality app, IKEA Place, launched in September 2017. The app uses augmented reality to enable usersto visualise how furniture will look in their homes, and the article examines how this appallows IKEA to create a service-centred value by addressing the challenges involved in furniture shopping and providing technology-based support to its customers.

Research Methodology

The data for this study was primarily collected from the questionnaire filled out by the 76 respondents. The secondary data was collected from the various journals and books. The study's location is Delhi, meaning most of the respondents are from there. The sampling method used in this study is convenience sampling. SPSS The data was analysed using various statistical tools on SPSS, such as one-way ANOVA and Correlation test.

Socio-Demographic Profile of the Respondents

There is an uneven distribution in the gender demographics of the respondents, with males comprising 59% and females constituting 41%. The majority of the respondent group falls between 18-20 at 75%, followedby above 40 years at 10.5% & 30-40 years at 9%. The majority of respondents

lie in the income group of Below ₹5 Lakhs Per Annum (62%), followed by a group of people with income between ₹10-20 Lakhs(16%).

Data Analysis and Interpretation

TABLE 1: Impact of augmented reality technology on the customers' perceptionof product quality and age

Age	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.383	4	1.346	1.267	0.291
Within Groups	75.407	71	1.062		
Total	80.789	76			

Source: Computed Data

The significant value is 0.291, i.e., greater than 0.05, which shows that the alternatehypothesis is rejected and the null hypothesis is accepted. It concludes that age does not affect product quality perception when using augmented reality technology.

TABLE 2: Correlation on product visualisation with augmented realityand AR's impact on product quality perception.

		Feel about the product	**Perception of product quality**
Feel about the product	**Pearson Correlation**	1	0.533
	Sig. (2-tailed)		<0.001
	N	76	76
Perception of product quality	**Pearson Correlation**	0.533	1
	Sig. (2-tailed)	<0.001	
	N	76	76

Source: Computed Data

The correlation value of 0.533 suggests a relationship exists between feeling about the product visualisation with AR and perception of product quality, therefore accepting the alternate hypothesis and rejecting the null hypothesis. This means that as the feelof product visualisation with AR increases, the perception of the customer's product quality increases.

TABLE 3: Correlation on satisfaction with the AR features used in shopping experiences and enhancing the customer's overall shopping experience using AR.

		Satisfactionwith AR features used	Enhanced shopping experience
Satisfaction with AR features used	**Pearson Correlation**	1	0.525
	Sig. (2-tailed)		<0.001
	N	76	76
Enhanced shopping experience	**Pearson Correlation**	0.525	1
	Sig. (2-tailed)	<0.001	
	N	76	76

Source: Computed Data

The correlation value of 0.525 proves there is a relation between the AR features and the enhanced shopping experience. The satisfaction with the AR features increases, and the customer's shopping experience is enhanced.

TABLE 4: ANOVA table for the effectiveness of AR in reducing customer uncertainty and enhancingconfidence in making purchase decisions and the age of the respondent.

Age	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.781	4	0.945	0.872	0.485
Within Groups	77.008	71	1.085		
Total	80.789	75			

Source: Computed Data

The significant value is 0.485, i.e., greater than 0.05, which shows that the alternatehypothesis is rejected, and the null hypothesis is therefore accepted. This indicates that there is no relation between the effectiveness of AR in reducing customer uncertainty and enhancing confidence in making purchase decisions and the age of the respondent.

Findings of the Study

- Age does not have a significant impact on how people perceive the quality of theproduct while using Augmented Reality technology.
- Income does not affect customers' buying decisions, and they use augmented reality to understand

the product's quality.

- The education level of the customer affects the buyer while using augmented reality technology to understand the product quality.
- The buyer's gender affects their buying decision when using Augmented Reality.
- A relationship exists between feeling about the product visualisation with AR andperception of product quality.
- Clear visualisation of the product quality helps the customer make buying decisionsquickly.
- The customers' education level will not determine the effectiveness of featuresdemonstrated by AR while a customer is buying the product having AR.
- There is a relationship between customers' satisfaction by using AR featureswhile buying and enhancing their shopping experience.

Recommendations

- Because people's perceptions of a product's quality are unaffected by age when they use AR technology, businesses can focus on marketing AR products to customers of all ages.
- When using augmented reality (AR) to understand a product, consumers' buying decisions are influenced by their level of education, so businesses can tailor AR technology to meet the needs of customers with varying levels of education.
- Because people's buying decisions are influenced by gender, brands can tailor their augmented reality offerings to specific genders.
- Since how an AR product visualisation feels affects how people perceive the qualityof the product, businesses can concentrate on creating high-quality visualisations for their AR products.
- Using augmented reality (AR), brands can make product visualisations feel more natural to customers, making it easier for them to decide whether to buy a product.

Conclusion

It is possible to conclude that the technology known as augmented reality (AR) hasa significant impact on the customer's perception of product quality and their decision to buy. According to the study, customers can quickly make a buying decision when they use AR to see clear visualisations of the product's quality. Additionally, the customer's perception of product quality is directly correlated with the feel of augmented reality product visualisation, which may positively impact their decision to buy. Hence, the study can conclude by stating that AR technology can potentially change how the retail industry functions.

Bibliography

1) Alves, C., & Luís Reis, J. (2020). The intention to use e-commerce using augmented reality case of IKEA place. In *Information Technology and Systems: Proceedings ofICITS 2020* Springer International Publishing. (pp. 114-123).
2) Arghashi, V. (2022). Shopping with augmented reality: How wow-effect changes the equations! *Electronic Commerce Research and Applications*, *54*, 101166.
3) Krishnakumar, M. (2018). Future apparel buying intention: Mediating effect of past apparel buying behaviour and past apparel buying experience. *Global Business Review*, *19*(3), 737-755.
4) Shah, R. (2023). Augmented Reality in E-Commerce: The New Era of Online Shopping. In *Intelligent Sustainable Systems: Selected Papers of WorldS4 2022, Volume 2* (pp. 775-783). Singapore: Springer Nature Singapore.
5) Watson, A., Alexander, B., & Salavati, L. (2018). The impact of experiential augmentedreality applications on fashion purchase intention. *International Journal of Retail & Distribution Management*, *48*(5), 433-451.