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Thematic Analysis for Identifying the Factors Affecting the Adoption of Augmented Reality by the Customers in the E Commerce Industry in India.

[*]Ms. Tanusha Jain, [2]Dr. Amisha Gupta
[*]Research Scholar,[2]Professor
JIMS Rohini, Delhi,India
tanusha.jain88@gmail.com

Abstract
The way that marketers connect with, engage, and keep customers is changing because of technology. Augmented reality (AR) is one type of technology that can help the physical and digital worlds talk to each other and connect. This could create value for both customers and businesses. Augmented reality is getting more attention from both academics and professionals, and it has the potential to change the way most businesses do business. Almost all of the published articles in the current body of knowledge are about the technical side of technology.In the marketing industry, there isn't a lot of data or study on how augmented reality can be used. This study paper shows the results of a thematic analysis that was done to find out what makes Indian customers adopt augmented reality (AR). The goal of the study is to find out what people in India think about when they decide whether or not to use AR technologies. When qualitative data from different study papers was looked at, several themes came out as important factors in the adoption of AR. The results help us learn more about the factors that drive customer behavior in India. They also have important effects for businesses that want to use AR technologies in the Indian e-commerce market.

Keywords : Augmented reality, e-commerce, and customer service

Introduction

[Alpert et al. 2003] say that a platform for online shopping can help businesses learn more about how people act when they shop online than when they shop in a store. [Guo & Poole, 2009] E-commerce businesses are using new technologies to better divide their markets into groups based on the products they sell and what their customers like. When a customer clicks on a product on the store's website, the shop knows they want it. E-commerce sites don't just give information right away; they also copy models and trends and look at transaction data to figure out how people act. [Kallweit et al. 2014] Also, stores are looking for new technologies that will give their customers a better experience because it's hard for them to get their attention with the technologies they already have.

Augmented reality (AR) is one of these immersive technologies that lets customers virtually interact with certain goods [Pous et al. 2013]. Companies like Google, Apple, and Facebook have recently put a lot of money into augmented reality technology. Alibaba, Microsoft, HTC, Sony, and Samsung have also created their own augmented reality technologies [Widmer 2017]. Innovative online stores like Zugara and LazyLazy.com have added augmented reality motion capture technology to their e-commerce websites to improve the buying experience for their customers [Kang, 2014].

Augmented reality (AR) is expected to have a big effect on the e-commerce industry because it could change and improve the way people shop online by letting them see the goods they want to buy [Kang 2014; O'Brien 2010]. Recent studies on augmented reality and e-commerce have looked at how customers feel, with a focus on how AR improves customer experiences, consumer engagement, and consumer knowledge while making online purchases [O'Brien, 2010]. Several studies [Huang & Benyoucef 2013; Kang 2014] have shown how AR could make internet shopping more fun for consumers. Other study [Parboteeah et al. 2009] has talked about how augmented reality (AR) can help consumers who are goal-oriented and rational and visit the site with a clear idea of the goods they want to buy become more aware of them. Augmented reality technology makes it possible for customers to interact with a product they might buy, which is often the biggest problem they run into when shopping online. [Alpert et al. 2003; Huang & Tseng 2015; Van Krevelen & Poelman 2010] This means that users are more likely to be happy with their purchases.

Even though it has been shown to improve how people see things and mimic how they usually buy things, [Tutunea 2013] few e-commerce businesses are actively using AR technology. Even though the technology has a lot of potential, not much has been done to study augmented reality in online shopping (see Appendix A). A lot of AR study is also focused on building or evaluating AR technology [Harborth, 2017], rather than looking at how people use AR technologies and if they

are acceptable to them. Researchers in the field of e-commerce have mostly ignored this problem, even though they have studied how customers accept AR technology and know that e-commerce companies don't use AR technology very often. So, more research needs to be done in this area of interest.

Literature review

Augmented reality (AR) is expected to shake up the e-commerce industry because it could make shopping more personal and better for customers by letting them see what they're buying [Kang 2014; O'Brien 2010]. Recent study on augmented reality in e-commerce has looked at the customer's point of view, with a focus on how AR can improve customer experiences, consumer engagement, and consumer awareness while shopping online [O'Brien, 2010]. For example, research [Huang & Benyoucef 2013; Kang 2014] have shown how augmented reality (AR) could make online shopping more fun for people. Other studies [Parboteeah et al. 2009] have looked at the role of augmented reality (AR) in making customers more aware of products when they are goal-oriented and logical and visit the site with a clear idea of what they want to buy. Because AR lets users connect with a product they might buy, it gets rid of the biggest problem online users often have: deciding if a product is right for them. [Alpert et al. 2003; Huang & Tseng 2015; Van Krevelen & Poelman 2010] As a result, people are more likely to like purchases.

Few e-commerce companies use AR technology, even though it has been shown to improve how people see things and mimic how they buy things in the real world [Tutunea, 2013]. Even though the technology has a lot of potential, not much study has been done on augmented reality in online shopping. AR study also usually focuses on making or reviewing AR technologies [Harborth, 2017], rather than looking at how people use AR technologies and if they are acceptable. Researchers in the field of e-commerce have mostly ignored this problem, even though they have looked into how customers react to AR technology and know that e-commerce businesses don't use AR technologies well. So, more research is needed in this area of study.

Huang and Liao (2015), Javornik (2016), Poushneh and Vasquez-Parraga (2017), Bell et al. (2018), and others say that augmented reality marketing is the use of AR in marketing to improve customer experiences, increase customer happiness, change consumer behaviour, and increase business revenues. AR is a key part of getting the results that are needed because it makes it possible to show and interact in new and interesting ways. Specifically, AR makes it easy for people to try out products and services by adding digital information or objects to how they see real things and places. This lets people get a lot of information about products and services. In particular, augmented reality (AR) not only makes online connection and experiences better, but it also creates amazing and unique in-person interactions (Javornik, 2016; Yuan et al., 2021).

AR first gets people interested in products and services online by giving them direct, real-time experiences of them (Chung et al., 2018). In particular, it gets around the problems with online shopping by letting customers virtually try on clothes, shoes, makeup, eyewear, furniture, and clothing (Smink et al., 2019; Hsu et al., 2021; Javornik et al., 2021), as well as clothing (Huang and Liu, 2014; Huang and Liao, 2017; Plotkina and Saurel, 2019), clothing (Huang and Liu, 2014; Huang and Lia Tiffany & Co. (Whang et al., 2021), L'Oréal (Hilken et al., 2017), Sephora (Smink et al., 2019), Nike (Hilken et al., 2018), Converse (Whang et al., 2021), Zara (Yuan et al., 2021), IKEA (McLean and Wilson, 2019; Qin et al., 2019), and Yim et al. (2017) say that they want to improve consumers' virtual experiences of physical goods in online settings by making them more immersive, engaging, educational, pleasurable, and satisfying. AR advertising is also better than regular advertising in a lot of ways. AR-enabled ads stand out because they are more advanced, interesting, unique, and educational, which makes customers more likely to respond positively (Yang et al., 2020; Sung, 2021).

Second, AR offers a brand-new, amazing experience on-site (Barhorst et al., 2021). AR is used in augmented retail places (Bonetti et al., 2019; Heller et al., 2019a; Batat, 2021); restaurants; museums; He et al., 2018; Zhuang et al., 2021; and art galleries (tom Dieck et al., 2018b; Tussyadiah et al., 2018). Retail giants like Lowes (Chalimov, 2021) and Machine-A (Chitrakorn, 2021) use augmented reality (AR) in their smartphone apps to connect with customers and keep them interested. Also, both well-known and new brands like Kate Spade, Charlotte Tilbury, Timberland, Lily, Philip, Lego, and Toys-R-Us offer customers a range of interactive experiences. By putting augmented reality (AR) screens in stores or adding AR-enabled features to a brand's mobile apps, customers can learn more about products, create unique and personalised products, and virtually try on products (Chalimov, 2021). According to Bonetti et al. (2019) and Cuomo et al. (2020), AR-enhanced stores can increase the value of a brand, make it easier for consumers to make decisions, improve

engagement with a brand, and make consumers want to buy more. AR-enabled restaurant services change how customers see their eating experiences (Batat, 2021) and encourage them to choose high-quality goods (Heller et al., 2019a). Also, tourists' plans to visit a certain place are affected by augmented reality apps, especially those made for wearable technology (Chung et al., 2015). Also, they can make visitors happier (Tussyadiah et al., 2018), improve their interactions with tourist sites (Tom Dieck et al., 2018a; Jiang et al., 2019), and make them more likely to pay more (He et al., 2018).
So, more research is needed in this area of study.
Because of how quickly technology is changing (Kaatz et al., 2019), the way customers connect with stores has changed. In particular, augmented reality (AR) is a tool that can be used to change the real world by adding virtual features on top of it. Thanks to a virtual layer between them and the real world, users can add text, information, images, videos, and other virtual items to the real world. Poushneh and Vasquez-Parraga (2017) say that augmented reality (AR) is a way to put computer-generated information on top of the real world. This definition puts the focus on the users' field of view, which makes it easier for them to get the knowledge they need to do their jobs. So, AR can improve the info that clients can see, hear, and touch, among other things.

The needs and experiences of end users haven't been taken into account in AR study, which has instead focused on the technology and how users will accept it. But the technology acceptance model doesn't show how AR adoption affects consumers' views about products or their plans to buy them, even though online retailers use AR to improve their customers' online shopping experiences. Other research has looked at how AR is received by shoppers and how that affects their behaviour from a customer experience point of view (Poushineh and Vasquez-Parraga, 2017). This includes both mental factors (like ease) and local factors (like decadent value). Scholz and Duffy (2018) did an observational study to find out how augmented reality (AR) changes the way people shop for things from their phones at home. They found that a close and intimate connection can form "due to how the branded AR app is incorporated into consumers' intimate space and their sense of self" (p. 11). Van Esch and others (2019) used augmented reality (AR) in their study on humanoid attribution in the retail environment and suggested that humanoid attribution works on how buyers interact with AR and how they feel about brands that use AR technology.

Also, Rauschnabel et al.'s (2019) study of sponsored AR apps found that the hedonic and utilitarian benefits, as well as the quality of augmented reality, can inspire consumers to have better feelings about brands. Huang (2019) focused on the characteristics of ownership control in the setting of e-retailing and practised his ability to explain the psychological mechanism of AR on the formation of brand love.

Research method

(Creswell, 2014) Qualitative research is a way to find out and understand how important people or groups think a social problem or human concern is to them. One of the qualitative research methods used in this work is thematic analysis (Braun & Clarke, 2006). Thematic analysis (TA) is a way to find themes or trends in data, look at them, and summarise them. It organises and summarises the data set with great care. But it also looks at different parts of the problem (Braun & Clarke, 2006). Thematic analysis is a flexible method because, unlike other qualitative methods, it is not limited by a particular way of thinking about knowledge or theory (Maguire & Delahunt, 2017).

The goal of the study is to find out what makes people accept augmented reality in the Ecommerce sector. Edmondson and McManus (2007) say that thematic content analysis coding for evidence of constructs is a good way to focus study in new research fields. Through data collection and research based on grounded theory, the factors that affect how customers use augmented reality in Ecommerce are found. There was a review of the research that had already been done on the matter. The data were put into the Nvivo software, which helped find broad trends about the topic. The information gathered from the literature study was gathered and put into the Nvivo software. There was work done to make a world frequency cloud and a table. With the help of the results, the big ideas about the subject were figured out.

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Findings

In this section the world cloud table derived from Nvivo

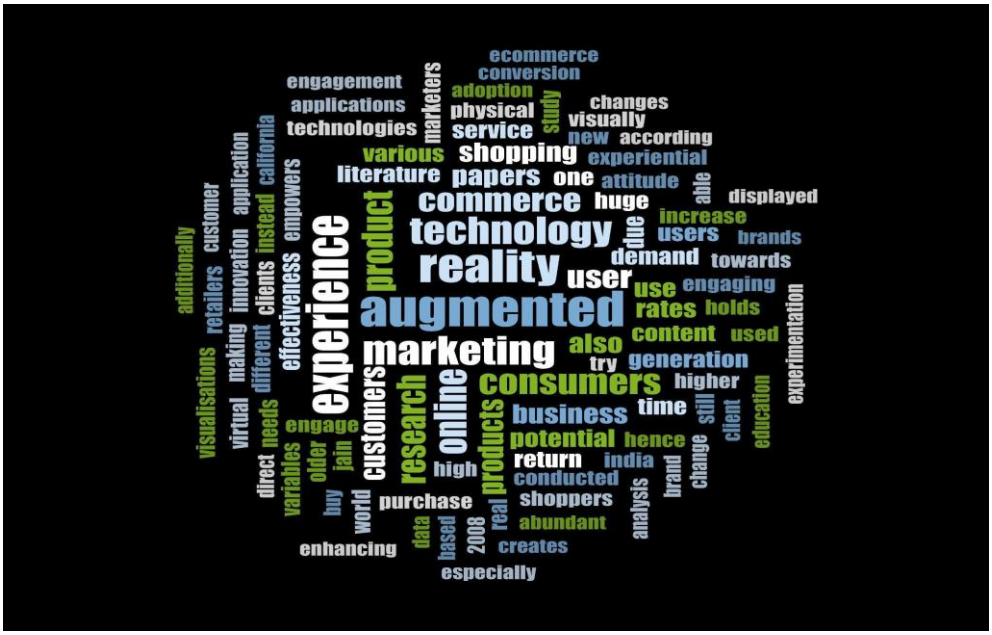

Fig 1 : Word Frequency Cloud Created by Nvivo.

Broad themes Identified

Theme 1 : Experience

The most common word is "experience." Experience refers to conscious events in general, and more specifically to perceptions or the real knowledge and familiarity that come from these conscious processes. In this case, the word "experience" refers to how customers felt when they used virtual reality in their marketing. This can be studied in more depth.Event-based marketing is the process of giving the customer an event instead of using traditional marketing methods to reach them. One of the best ways to connect with people and get them interested in a brand and what it has to offer is to give them a fun and unique experience.

Theme 2: Effectiveness

Effectiveness is the ability to get the results you want or the ability to get the output you want. In the study, the word "effectiveness" comes up a lot, which shows that using augmented reality could improve the customer experience and lead to more sales. Measurements of marketing success are used to figure out how much money a company is making and how much it is spending to get new customers. Any business that can lower the cost of getting new customers while growing their return on investment (ROI) is a winner.

Theme 3: Customer Engagement

Customer engagement is the ongoing building of a connection between a company and a customer that goes far beyond the transaction. It's a planned, consistent way for a company to give customers value at every contact, which makes them more loyal.Since this word is used a lot in the current literature, we can conclude that using augmented reality could get more customers involved with the company.

Theme 4: Increased Users

Since this word is used several times in the current literature review, it seems likely that using "augmented" would lead to more demand.

Theme 5:Innovation

Innovation is putting ideas into action in a way that makes new products or services available or makes the ones that are already available better. Augmented reality is a new technique, based on how the word cloud looks.

Discussion and Conclusion

The goal of the research is to find the big ideas that will help build the study of what makes customers in the Ecommerce sector in India use augmented reality. The big ideas in the paper can be used as a starting point for more research in the same area. It could also be used to start a conversation between businesses about how augmented reality could be used as a marketing tool.Since there aren't many studies in the area of research, the insights gained could be used to get better insights or a foundation for future studies.

The study has a few flaws as well. Due to the small number of studies, the results are based on a small amount of data. Also, a test study could be done, and the study could be made bigger by talking to experts about the same topic.

References:

1. Ajzen, I., From Intentions to Actions: A Theory of Planned Behavior, Berlin, Springer, 1985.
2. Ajzen, I., “The Theory of Planned Behavior,” Organizational Behavior and Human Decision Processes, Vol. 50: 179-211, 1991.
3. Allison, P. D., Logistic Regression Using the SAS: Theory and Application, Cary, NC: SAS Institute, 1999.
4. Alpert, S.R., J. Karat, C.M. Karat, C. Brodie, and J.G. Vergo, “User Attitudes Regarding a User-Adaptive E-Commerce
5. Web Site,” User Modeling and User-Adapted Interaction, Vol. 13, No. 4:373-396, 2003.
6. Alshamaila, Y., S. Papagiannidis, and F. Li, “Cloud Computing Adoption by SMEs in the North East of England: A
7. Multi-Perspective Framework,” Journal of Enterprise Information Management, Vol. 26, No. 3:250-275, 2013.
8. Anandarajan, M., M. Igbaria, and U.P. Anakwe, “IT Acceptance in a Less Developed Country: A Motivational Factor
9. Perspective,” International Journal of Information Management, Vol. 22, No. 1:47-65, 2002.
10. Anderson, J.C. and D.W. Gerbing, “Structural Equation Modeling in Practice: A Review and Recommended Two-StepApproach,” Psychological Bulletin, Vol. 3, No. 3:411-423, 1988.
11. Augment, “AR in Ecommerce: 3 Ways Augmented Reality is Benefitting Retailers and Shoppers,” Augment.com,
12. http://www.augment.com/blog/ar-ecommerce-3-ways-augmented-reality-benefitting-retailers-shoppers/, 2017,accessed August 24, 2017.
13. Azuma, R.T., Y. Baillot, S. Feiner, S. Julier, R. Behringer, and B. Macintyre, “Recent Advances in Augmented Reality,”IEEE Computer Graphics and Applications, Vol. 21, No. 6:34-47, 2001.
14. Baker, J., “The Technology-Organization-Environment Framework,” in “Information Systems Theory”, Yogesh K.
15. Dwivedi, Michael R. Wade, Scott L. Schneberger (Eds.) Springer, NY, pp. 231-245, 2012.
16. Bano, F., “Quality of ERP Implementation: Case Study of Select Indian Organizations,” International Proceedings ofEconomics Development and Research, Vol. 75:36, 2014.
17. Barbera, F., Financing, Firm Size and Productive Efficiency: The Effect of Family Ownership, Doctoral Dissertation,Bond University, Australia, 2013.
18. Bartel, A., C. Ichniowski, and K. Shaw. “How Does Information Technology Affect Productivity? Plant-Level
19. Comparisons of Product Innovation, Process Improvement, and Worker Skills,” The Quarterly Journal of Economics, Vol. 122, No. 4:1721-1758, 2007.
20. Bartel, A. P., and F. R. Lichtenberg. “The Comparative Advantage of Educated Workers In Implementing New Technology,” The Review of Economics and Statistics, Vol. 69, No. 1:1-11, 1987.
21. Belsley, D.A., E. Kuh, and R.E. Welsch, Regression Diagnostics: Identifying Influential Data and Sources of Collinearity, New York, NY: John Wiley and Sons, 1980.
22. Bhattacharya, M. and S.F. Wamba, “A Conceptual Framework of RFID Adoption in Retail Using TOE Framework,”
23. International Journal of Technology Diffusion, Vol. 6, No. 1:1-32, 2015.
24. Bhattacharya, M. and S.F. Wamba, "A Conceptual Framework of RFID Adoption in Retail Using TOE Framework,"in “Technology Adoption and Social Issues: Concepts, Methodologies, Tools, and Applications”, Mehdi