

From Interaction to Intention: The Crucial Role of User Experience in Augmented Reality Marketing

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ABSTRACT

This research examines the central issue of how augmented reality marketing (ARM) affects consumer Purchase Intention in the cosmetics sector, focusing on the role of user experience as a mediator. The aim of this research is to analyze the impact of ARM on Purchase Intention and understand how user experience plays a role in strengthening or mediating the relationship. The proposed solution is the use of ARM to increase consumer engagement and trust in buying cosmetic products online. The method used in this study is a survey with purposive sampling technique, involving respondents who have purchased Make Over products more than twice online. Data were collected through questionnaires and analyzed using the Partial Least Squares (PLS) method. This research is based on the Stimulus-Organism-Respondent (SOR) theory that connects ARM marketing stimuli with consumer responses in the form of Purchase Intention, with User Experience as a cognitive factor that influences the Decision. The results show that ARM has a positive impact on Purchase Intention, and User Experience also plays a significant mediating role in this relationship. ARM technology is the main factor influencing Purchase Intention.

Keywords: Augmented Reality Marketing, User Experience, Purchase Intention

1. Introduction

The cosmetics industry has undergone a significant transformation with the advent of Augmented Reality (AR) technology. The 'virtual try-on' feature not only changes the way consumers shop, but also provides new opportunities for brands to increase sales. Augmented Reality (AR) or AR marketing (ARM) is a technology that incorporates virtual objects into the real world to help businesses market. AR can be used to attract new customers, launch new products, and make marketing campaigns more entertaining. The concept of Augmented Reality (AR) aims to display virtual product information in 3D in real-time in the consumer environment (Javornik, 2016). AR is a development of 3D technology that allows viewing virtual products from various angles, including 360-degree views. However, the main difference between 3D and AR is that AR incorporates virtual products into the consumer's physical environment (Olson, Lagerstam, Kärkkänen-Vainio-Mattila, 2013). Augmented reality is one of the new breakthroughs that offers solutions to problems through technology that is able to bring the virtual world into the real world. Through this technology, consumers can do online shopping with an on-site shopping experience. This technology is proven to provide many advantages in e-commerce, including increasing sales, developing brands, and shaping consumer perceptions (Desti & Santi, 2015). In the online shopping experience, this technology allows consumers to try products through the virtual world (Ma&Choi, 2007).

The cosmetics industry has undergone major changes with the application of

technology. Virtual try on strategies are being implemented by several industries, one of which is cosmetics. Augmented Reality (AR), especially through the "virtual try-on" feature that allows consumers to virtually try on products. AR technology not only enhances the online shopping experience but also helps reduce consumer uncertainty in making purchasing decisions. Local brands that implement Virtual try-on are Wardah, Make Over and Emina. Virtual try-on allows consumers to virtually try on cosmetic products using a camera or their own photos. AR and VR technologies help improve the shopping experience and product sales.

Studies show that the use of AR in marketing can increase conversion rates and provide solutions to challenges in online shopping. Data from Perfect Corp shows Estee Lauder experienced a 2.5-fold increase in conversion rate with Lip Virtual Try- on technology. e.l.f cosmetics also experienced a 200 percent increase in conversion rate with virtual try-on technology. Global Market Estimates show AR and VR technology will continue to increase until 2027 with a CAGR of 25.5 percent.

Various studies show that augmented reality (AR) focuses on creating digital affordances to improve customer experience, assisting consumers in performing various activities, as expressed by Chylinski et al. (2020). A high level of interactivity will result in a higher UX. Although the user experience is not completely the same, AR technology allows potential buyers to try products as if they were in a physical store, so this feature can increase higher user satisfaction and user willingness to buy.

High-quality product presentation can reduce risk by creating a sense of proximity, reducing the barrier between consumers and products (Whang et al., 2021). Consumer uncertainty in purchasing decisions is increasing both offline and online (Whang et al., 2021). Customers feel more at risk if they do not see or try the product firsthand (Whang et al., 2021). This is because it is difficult to evaluate the product accurately without physical experience such as touching and trying, so the trust in product performance is minimal (Whang et al., 2021).

When consumers feel the product is physically present, negative impressions are reduced. The AR experience in presenting products with a high sense of presence, makes consumers more likely to make purchasing decisions (Hilken et al., 2017; Whang et al., 2021). Purchase intention refers to a person's tendency to make a transaction. Studies have shown that augmented reality (AR) has a significant influence on consumer behavior, including purchase intention. The success or failure of an AR application largely depends on its effectiveness in stimulating purchase intention and repeat use.

2. Literatur Review

2.1 Stimulus Organisme Respon (SOR)

This study uses the theory of stimulus organism response (SOR) model is a theory that describes how stimuli from the environment (stimulus) affect the internal condition of individuals (organism), which then affects their response. Jacoby (2002) developed this theory by including cognitive and affective aspects. In marketing, the stimulus can be in the form of sensory marketing elements that have an impact on consumer perceptions and emotions, thus influencing purchasing decisions. Mehrabian and Russell's (1974) research shows that a well-designed environment can trigger positive emotions, which in turn increase the likelihood of purchasing behavior. Research from Floh & Madlberger (2013), the application of the SOR model in the context of e-commerce stimulus can influence consumer responses directly or indirectly. In this study, the SOR model is used as the basis for analyzing the effect of website quality and augmented reality (stimulus) on purchase intention (response) both directly and through indirect mechanisms. According to Donovan and Rossiter (1982), this model supports that certain stimuli can evoke customers' cognitive and emotional states, which are likely to influence their behavioral responses. In this study, stimuli are represented by dimensions of marketing activities in AR perceived by customers.

2.2 Augmented Reality Marketing

The AR concept combines the real and virtual worlds by adding virtual elements into the user's environment (Cawood & Fiala, 2007). In online or mobile shopping, AR technology increases consumer satisfaction and encourages purchase intentions (Dacko, 2017) making it an effective tool for e-commerce greetings (Flavián et., al 2019; Yim, Chu & Sauer, 2017). AR enables the integration of interactive, adaptive, and shareable digital content, such as images or information, into the user's view using mobile technology. In marketing, AR helps improve customer experience, decision-making, and response by adding or subtracting information in their perception of the physical environment (Hilken et., 2018).

2.3 User Experience

Augmented reality improves user experience by revealing more product information than products without AR, which results in higher UX at the time of purchase, reduces user anxiety (Huang and Hsu-Lu, 2014), and facilitates decision making (Kim and Forsythe, 2008a, 2008b). User Experience is a person's perceptions and responses resulting from the user/anticipated use of a product, system or service (International Organization for Standardization, 2010). User experience thus describes a person's perceptions and reactions before, during and after digital use. By using AR, consumers can interact dynamically with products that can help online shopping consumers to choose products that better suit their needs (Smink et., al 2020). With this technology, AR aims to provide consumers with an effective and enjoyable user experience (Huang and Liao, 2015).

2.4 Purchase Intention

Purchase intention according to Kotler and Keller (2012), is the desire of consumers to buy or choose a particular product. This desire arises after consumers weigh and evaluate the information they receive about the product (Remawa, 2017). Purchase Intention is an important stage in the buying process. At this stage, consumers compare various products, weigh their advantages and disadvantages, and make a decision to buy or not. Purchase interest is part of consumer action towards the desire to consume, as well as the respondent's desire to act before actually making a purchase. It is important to measure consumer buying interest to understand whether they will remain loyal to using a particular product or service, or switch to another. The interest that arises after making a purchase can generate motivation that continues to be imprinted in the minds of consumers into a very strong drive. This leads to when consumers need to fulfill their needs according to what they think. Purchase interest is not just a random desire, but a spark born of interest. When consumers are exposed to products, they receive stimuli that can arouse curiosity and interest. This interest then develops into purchase intention, driving consumers to own the product. Ananda et al. (2016) explain that consumers' buying interest is naturally formed when they give a positive response to the seller's offer.

2.5 Hypothesis Development

2.5.1 The relationship of augmented reality marketing to purchase intention

Research conducted by Jha Suchita, et., al (2020) states that the influence between added reality marketing on purchase intention has a significant effect. These results are consistent with research conducted by Jeong Bing Whang et., al (2021) with the results of additional reality marketing can increase buying interest. On the basis of previous research, the following hypothesis can be concluded:

H1 : Augmented Reality Marketing has a significant effect on Purchase Intention

2.5.2 The relationship between User Experience and Purchase Intention

Research conducted by Bing Qi et.,al (2023) states that user experience has a significant effect on purchase intention. This is in line with research conducted by

Eldad Baltazar Watulingas et.,al (2020) which proves that user experience has a significant effect on purchase intention. On the basis of previous research, the following hypothesis can be concluded.

H2 : User Experience has a significant effect on Purchase Intention

2.5.3 The relationship of Augmented Reality Marketing to User Experience

Research conducted by Luz E. Gutierrez et., al (2022) states that augmented reality marketing has a significant effect on user experience. This is in line with research conducted by Atieh et., al (2017) with the results of added reality marketing having a significant positive effect on consumer decisions. On the basis of previous research, the following hypothesis can be concluded.

H3 : Augmented Reality Marketing has a significant effect on User Experience

2.5.4 User experience mediates the relationship between augmented reality marketing and purchase intention

User experience has an impact on augmented reality marketing. The results of research conducted by Stephanie et., al 2024 explain that AR has emerged as a sophisticated technology that is increasingly in demand in various industries, which has great potential to improve user experience. The results of research conducted by Hatane Samuel et., al (2017) explain that individuals with high openness to experience will lead to high purchase intentions. Based on the results of previous research, the following hypothesis can be formulated

H4: User Experience mediates the relationship of Augmented Reality Marketing to Purchase Intention

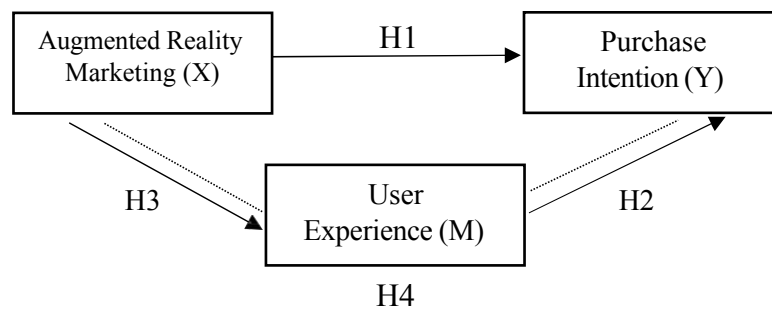


Figure 1 Research Framework

3. Research Methodology

This study uses a survey approach to test the mediating role of user experience in the relationship between augmented reality marketing and purchase intention. The study population consists of consumers who have purchased Make Over products more than twice through online stores that implement AR. The sample will be taken using purposive sampling technique to ensure respondents have relevant experience with the product. This research uses the SOR (Stimulus Organism Response) theory researched by Jacoby (2002). Data will be collected through a questionnaire designed to measure variables such as augmented reality, user experience and purchase intention. The questionnaire will be distributed online through social media and email to reach the right respondents. Then the data is analyzed using PLS (Partial Least Squares).

4. Data Analysis

Data analysis is the process of collecting, cleaning, transforming, and modeling data with the aim of discovering useful information, informing conclusions, and supporting decision-making.

The following table presents the results of simple linear regression analysis which aims to test the effect of augmented reality marketing and user experience variables on consumer buying interest.

Table 4.1 Analysis Regression Linear

Variable	Unstandardized B	Coefficients Std.Error	t	Sig.
Augmented Reality Marketing	0,234	0,072	3,229	0,002
User Experience	0,262	0,096	2,735	0,007

The Augmented Reality Marketing variable has coefficient effect of 0.234, with sig. $0,002 < \alpha=0,05$, this means that augmented reality have a positive influence on purchase intention. User Experience variable has coefficient effect of 0,262, with sig. $0.007 < \alpha=0,05$, this means User Experience have a positive influence on Purchase Intention.

The following table presents the results of the Sobel test used to test the significance of the indirect effect of augmented reality marketing variables on purchase intention through the mediating variable of user experience.

Table 4.2 Sobel Test

	Statistical Test	Standard. error	Sig.
Sobel test	2,090	0,029	0,036

To test the mediation effect in this study using the sobel test. The result show that value two tailed probability value of 0.036 is less than alpha 0.05 indicating that user experience mediates between Augmented Reality Marketing on Purchase Intention. R square 0.148 shows that Purchase Intention is influenced by Augmented Reality Marketing and User Experience by 14.8%. The rest is unknown because it was not examined by this study.

5. Conclusion

The results of this study indicate that Augmented Reality Marketing (ARM) has great potential to increase consumer purchase intentions. Positive User Experience is a key factor in mediating the relationship between AR and purchase intention. These findings provide important implications for marketers to integrate AR technology into their marketing strategies, with a focus on improving user experience.

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