From Intention to Action: The Impact of Augmented Reality (Virtual Try-On) on Beauty Product Purchases in Nykaa Online Beauty Store

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Abstract

The study explores the role of Augmented Reality (AR) virtual try-on features in shaping customer purchase behavior, focusing on Nykaa's beauty products platform. Using structural equation modeling (SEM), the research examines the direct and indirect effects of key variables, including Telepresence, Ease of Use, Hedonic Value, and Utilitarian Value, on customer attitudes, product knowledge, purchase intention, and eventual purchase behavior. Findings reveal that Telepresence and Ease of Use positively influence both Hedonic and Utilitarian Values, which in turn impact product knowledge and customer attitude. While Technology Anxiety and Ego Involvement did not show significant effects, Attitude and Product Knowledge emerged as strong predictors of Purchase Intention and Purchase Behavior. The study underscores the importance of AR tools in enhancing user experience, improving engagement, and driving sales. These insights are valuable for marketers, e-commerce platforms, and product developers to optimize AR features and refine strategies to improve customer satisfaction and conversion rates in the beauty products industry.

Keywords: *Augmented Reality, Virtual Try-On, Purchase Behavior, Telepresence, Hedonic Value, Utilitarian Value, Structural Equation Modeling (SEM).*

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Introduction

The Retail Industry has seen a drastic change over the past decade because of the development of smartphones and various shopping channels (online channels, social media channels). According to Ha-Lim Rhee and Kyu-Hye Lee's study, the sales quantity from digital channels is more than from offline channels (Rhee & Lee, 2021). At present, we are seeing the world that was based on computer-mediated interaction with technology changing to portable technologies that enable the interaction to happen without any hassle (Richter et al., 2017). People are finding it easier to carry out their various internet activities with the help of devices such as smartphones because the technology is growing aggressively (Gabriel et al., 2023). The major contributors to the increase in online shopping are convenience, low prices, and availability of products that are not there in conventional offline shopping (Yadav, n.d.). To utilize the opportunity created by this consumer trend, most companies are using mobile phones as a weapon to market and sell their product (Haile & Kang, 2020). Amid the emergence of online shopping practices, the global beauty products industry is predictedto rise from USD 518.56 billion in 2022 to USD 784.52 billion in 2030, at a compounded year-on-year growthof 7.7% from 2023 to 2030 (Grand View Research, 2022). The growth of the beauty products industry is due tovarious factors such as:

Rising incomes: According to the study (Jain & Kaur,2022) which is on the topic of Consumer Behavior, the main reason for the surge in the beauty care industry is because of the increase in income of consumers in developing countries.

Increase in awareness about skincare: From the study of (Liew et al., 2021), which is publishedin the Journal of Dermatological Science, we can understand that 70% of consumers believe that it is important to a purchase beauty care product to enhance their looks. Though the online purchases of beauty products through e-commerce are experiencing rapid growth globally, retailers are facing some of its consequences such as cart abandonment, and web rooming (searching for the products online and purchasing them offline; (Hilken et al., 2017). The major cause for these

consequencesis a lack of direct product experience and, a lack of sensory information such as touching and feeling the product, one would experience when purchasing offline (Smink et al., 2019). As per the study of (Diana et al., 2023),it is proved that consumers may buy the wrong product that does not meet their expectation and their interestto do online shopping will decrease as they cannot directly touch and feel the product as they can do it in offline shopping. To address this problem, marketers have come up with a solution called Augmented Reality (AR) technology (Smink et al., 2019). A single interface that merges the advantages of both the physical and digital world has been developed for the creation of innovative applications and services which is called Augmented Reality (Olsson et al., 2013). Augmented Reality (AR) is a wonderful technological invention that infuses the virtual world into an actual field of viewing the real world (Yadav, n.d.). To cope with the developments of the technological landscape and the requirements of the consumers, the e-commerceindustry must integrate the latest advancements to attract customers to their side. Among all the emerging technologies, Artificial Intelligence (AR) technology is standing out as a crucial innovation that demands the attention and adoption of e-commerce platforms (Gabriel et al., 2023). Thus, one of the best ways to overcome the consumers' issue will be Augmented Reality Marketing (ARM) (Smink et al., 2019). ARM

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empowers the customers to virtually try the product which results in an increased direct exposure to the product (Smink et al., 2019). Considering the potential of ARM, marketers have integrated it with e-commerce to address the challenges prevailing in the industry (Olsson et al., 2013).

In the moment's quickly evolving digital geography, augmented reality (AR) has surfaced as a transformative technological invention with the eventuality to revise the way consumers buy opinions, particularly in the cosmetics diligence. As AR operations become suddenly accessible through smartphones and other biases, consumers are now empowered to nearly try on cosmetics products, imagining how they will appear inreal time before making a purchase. The motive of this study is to analyze the influence of ARM on consumers' decision-making in the purchasing process of beauty products. While some of the existing studies on augmented reality

in online platforms were more focused on the influence of the consumers' purchase intention of purchasing a particular product through ARM (Diana et al., 2023; Gabriel et al., 2023;Haile & Kang, 2020; Ibrahim et al., 2023; Iisnawati et al., n.d.; Olsson et al., 2013; Richter et al., 2017; Smink et al., 2019; Yadav, n.d.), The motive of this study is to make the readers understand about how augmented reality application affects the purchase behavior within the beauty product industry. To address this gap, the study is investigating further the impact of Nykaa's virtual try-on option on customers' purchase decisions as these are the products that are purchased frequently by consumers using virtual try-on options according to Business Today. Nykaa is the leading online beauty retailer in India.As per the interpretation from Redseer strategy consulting, Nykaa is the leading online beauty product sellerin India with a market share of about 30%. This results in a huge customer base for Nykaa which makes it good choice for research purposes. According to an article in Economic Times in the year 2017, the company was one of the first beauty product retailers in India to launch their virtual try-on option in the year 2017, and it has become one of the game-changing features of the platform because of the convenienceit provides to the customer. Thus, the study aims to examine factors such as convenience in using, product knowledge and customer attitude, and provide information about the impact of AR in beauty product businesses, and marketers for coming up with a predictive business decision to improvise their strategies to engage the consumers and customer satisfaction in the dynamic market especially the papers aim to address the following research questions.

RQ: How does the integration of ARM influence consumers' intention and behaviour to buy beauty products in online beauty stores?

Literature Review and Proposed Hypothesis

After careful integration of the literature, the following hypothesis is proposed.

H1a: Telepresence directly influences the utilitarian value:

Utilitarian value is the extent to which a person considers a digital tool is improve the purpose of actionin which they are involved (Raska & Richter, 2017). According to the study of Gregory Gimpel (2011), the paper discusses the utilitarian value of a particular technology as an important factor that will influencethe decision-making

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process of a consumer to adopt and use wireless technology (Gimpel, 2011). According to (Ongsakul et al., 2021), utilitarian value is directly influenced by telepresence in a tourism-related AR application which was used in their study. As the AR application increases telepresence and satisfies the customers' information needs, it has an increased utilitarian value.

H1b: Telepresence directly influences the Hedonic Value:

Hedonic value, in the aspect of consumer behavior and marketing, refers to the pleasure or the level of emotional satisfaction that is provided by a product or service to the consumers (Raska & Richter, 2017).Thus, the hedonic value of technology is one of the factors that influences a person's purchase in the process of adoption of technology (Gimpel, 2011). The study of (Lim, 2021) and (Beuckels and Hudders, 2014) has suggested that telepresence is directly influencing hedonic value in online shopping through augmented reality. Increased Telepresence has resulted in high hedonic value when analyzing the impact of AR (Alzayat and Lee, 2021). Similarly, (Han et al., 2000), have interpreted that telepresence has a positive impact on Hedonic value.

H2a: Ease of Use directly influences the hedonic value:

An Individual's belief in any of the concepts that will be so helpful for him to be free from a job is called Ease of Use (anita at el., 2020). Ease of use of technology can be measured with the help of various dimensions such as response to navigation, response speed, and how good is the interface to make the user understand the purpose of the platform and access (Susanto & Aljoza et al., 2015). As per the research of Igbaria et al., 1995, User-friendliness is one of the significant factors that influences one's perception of using an Information Technology system (Osman et al., 2016).

Hedonic motivation is the fun a user has from the adoption of a technology (Brown & Venkatesh, 2005).The convenience of technology determines the enjoyment a person has when using it, as an easier interface is considered as more enjoyable compared to a complex one (Agrwal & Kharahanna, 2000; vander Heijjden, 2004; Conci et al., 2009). The study of (Fagan et al., 2008), which was done on the managersof a company on the usage of computers also proves that Perceived ease of use affects Hedonic value.

H2b: Ease of Use directly influences the utilitarian value

As per the theory of task complexity (R.E wood., 1986), individuals' opinion on task complexity varies substantially. Considering the study of (Gupta and Sharda., 2013), if an individual feels that he/she needsa certain amount of expertise or understanding to perform a particular action out of their capability mightundergo an information-overloaded scenario. Adding to this, (R.E wood., 1986) proposes that information overload destroys an individual's concentration and remembrance which results in not accomplishing thetask they are performing. Thus, the study developed this hypothesis. ***H3a: Technology anxiety negatively impacts hedonic value & H3b: Technology anxietynegatively impacts utilitarian value:***

When it comes to technology, anxiety has prevailed as a consideration since 1970s (Powers et al., 1973). Information and Communication Technology will cause anxiety among the persons who are trying to convert their lives into more efficient and effective (Meuter et al., 2003). One such impact is the potentialapprehension people address when they are considering using information and communication technologies (matthew et al., 2022). This construct which we are going to use is been around for several decades now and it was described with another term – computer anxiety (anne et al., 2022). Therefore, the term technology anxiety is explained as the tension that results in the negative perspectiveof using technologies derived from experiential, behavioral, and physiological elements (albert et al., 2022).

From the study of (Yuan et al., 2022), customers who have less technology anxiety are

able to recognizethe hedonic value and able to complete task as they want it to be which resulted in an increase of trust inonline sellers. Similarly, (Khoa & Huynh., 2023) in their study on the relationship between technology anxiety and customer perception suggest that anxiety has a negative influence on hedonic and utilitarian value.

H4a: Ego involvement positively impacts hedonic value & H4b: Ego involvementpositively impacts utilitarian value:

The concept of ego involvement means that the level to which a person's self-character is in relation withhis/her stand on a specific problem and how they are defining themselves (Johnson & Eagly, 1989; Lapinski & Boster, 2000). Further, ego

involvement is basically focused on personal behavior (Johnson & Eagly).

Ego Involvement is assumed to have an impact the interaction of a user and whether they are favorable toinnovative technologies (kang et al., 2014). Apart from that, Javornik (2017) suggested through his research that augmented "magic mirrors" is attracting the people as they are able to derive various uses and potential of the same technology. Various researches suggest that there is ego involvement have a positive impact on hedonic value. For instance, (Holbrook and Hirschman, 1982) suggest that if a person'sego involvement is more in a particular product, the chances of deriving hedonic value is more as the product matches with the person's desire and interest.

Similarly, (Swaminathan et al., 2007) interpreted that ego involved consumer attains more utilitarian valueas they consider that product as an essential to complete their task of purchasing. (Babin and Darden,1995) interpreted that a consumer who is ego- involved will try to search for hedonic value for their emotional needs and utilitarian value for satisfying their essentials.

H5a: Hedonic Value directly influences the attitude towards a particular product: Attitude towards a technology is called as the individual's or group's evaluation, opinion, and perception towards a particular technological innovation, device, or information technology. It includes the beliefs, emotions and judgements that a person has in respect to a specific technology and can be characterized aspositive, negative, or neutral (Raska & Richter, 2017). Therefore, usage of augmented reality positively influences on the attitude towards a particular product (Bokati, 2023).

Previous researches have consistently interpreted that hedonic value have a positive impact on a consumer's attitude towards a particular brand (Dick and Basu, 1994; Fournier, 1998). For example, (Chaudhuri and Holbrook., 2001) interpreted that hedonic value directly influences the consumers' attitudetowards a product. Adding to this, (Holbrook and Hirschman., 1982) suggested that a product that alignswith the emotional need of a person results in higher hedonic value which results in a positive attitude towards a brand.

H5b: Hedonic Value directly influences the product knowledge

Product Knowledge is called as the understanding a consumer have on a particular product (Bettman & Park, 1980). From the study of (Jiewen Hong et al., 2010), we can

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understand that if a customer is havingan extensive knowledge for a product category reflects in the perception of the consumer having towardsthe particular product which leads the consumer to evaluate the brand more favorable because of the highlevel of construal (Jiewen Hong et al., 2010).Various studies support that hedonic value directly influences the product knowledge. A significant studyis by (Holbrook and Hirschman., 1982) which interprets that when a consumer experiences an enjoyable and emotionally satisfying moment while exploring a product, that leads the consumer to know more aboutthe product. Adding to this, (Dhar & Wertenbroch, 2000), interpreted that a product which tends to be enjoyable motivates more learning acquisition of knowledge about the particular product.

H6a: Utilitarian value directly influences the attitude towards a particular product: Utilitarian value is proposed to be a major factor in the aspect of a consumers' attitude towards a product (Igbaria et al., 1994; Teo, 2001). Considering the studies of (Jarvenpaa and Todd., 1997; Burke., 1997) the most significant feature of online shopping that made the customers to incline towards a product is theconvenience in purchasing a product which helped them to accomplish their task easily (utilitarian value).

H6b: Utilitarian value directly influences the product knowledge

When a consumer realizes the efficiency, usefulness of a product, that leads them to extensive learning about the product (Peter & Oslon., 2010). Also, from the study of (Dhar & Wertenbroch., 2000), we can understand that practical attributes of a product increase the tendency to explore which finally leads to more amount knowledge acquisition about the product. Similarly, the hypothesis is proven by the researchof (Bloch et al., 2003) by suggesting that realizing the practicality of a product leads to knowledge acquisition.

H7: Attitude directly influences purchase intention

As per the study of Mirabi et al., 2015, a customer's purchase a product is a complicated process. Intentionof Purchase usually have a relation behavior, opinion and point of view of the consumer and it statesthat the main point for consumers to access and consider a product is purchase behavior. Apart from this,the intention of the consumers is influenced by internal and external factors throughout the process of purchase

(Gogoi, 2013).A person's thought to purchase a product will be affected by the customers' attitude towards the product (Porter., 1974). From the study of (Solomon., 2014), it is interpreted that the attitude of a customer towardsa product impacts the overall evaluation of the product which evaluates his/her preferences. Previous scholars (Felix and Braunsberger, 2016; Gupta and Ogden, 2009) suggested that consumer's attitude playsa significant role in their purchase intention.

H8: Product Knowledge positively impacts purchase intention

During the purchase process, consumers' understanding on a particular brand will have an extensive impact on his/her purchase Intention (Brucks., 1985). The Study of (lin & Chen., 2006) also interprets thatproduct understanding impacts the purchase intention. Adding to this, (Resmawa., 2017) suggests that a consumer will search for many information from different sources as it will impact his/her purchase intention. Also, the research conducted by (Aisah & Wahyono., 2018) proposes that there is an impact between product understanding and intention to purchase.

H9: Positive purchase intention leads to the purchase of the product

From the study of (Fishbein and Azjen., 1977), we can interpret that to know about the consumer behavior, it is essential to understand about the consumers' intention of purchase. In the existing researches by (Heet al., 2008), it was proven that the absence of positive purchase intention is the significant reason for decrease in the sales of e-commerce platforms.As per the theory of planned behavior (Ajzen., 1991), purchase intention of a consumer is a significant factor used to predict the actual purchase behavior. Purchase intention have a direct relationship with

various internal and external factors such as personal beliefs, marketing efforts of a particular company etc. If all these factors match positively, it leads to a positive purchase intention which will most likely result in the purchase of the product (Sheth, Newman, & Gross, 1991).

The model (Fig 2.1) used in the research study is an extended version of the model used in the research study of Krystof Raska and Tobias Richter in which they have explored the Influence of Augmented Reality on Purchase Intention – The IKEA Case. First, the model used in the base paper was an extension of Schwartz's (2011) model which includes variables such as hedonic value, utilitarian value, and ease of use for

studying the integration of shopping-related AR technologies and its impact on the consumers' purchase intention. Added to that, Krystof and Richter have studied whether an individual's attitude towards a product and product knowledge is affected by the telepresence of shopping-related AR applications. Further, they also studied the impact of telepresence on the utilitarian value and hedonic value perceived by the user of AR applications. They also continued to study the impact created by technology anxiety and ego involvement on the utilitarian value and hedonic value perceived by the user as it is proven that technology anxiety influences the interaction of an individual with AR technology (kang 2014; Kim & Forsythe, 2008).

Schwartz (2011) has done a study on the impact of AR on apparel customers and was not able to prove a significantly higher purchase intention. Consequently, Krystof and Richter considered that AR as a wonderful product virtualization technology will have a positive influence on the purchase intention than a website presentation and they have proven a higher purchase intention among the experiment group that experienced the AR option at IKEA.

Proposed theoretical Model

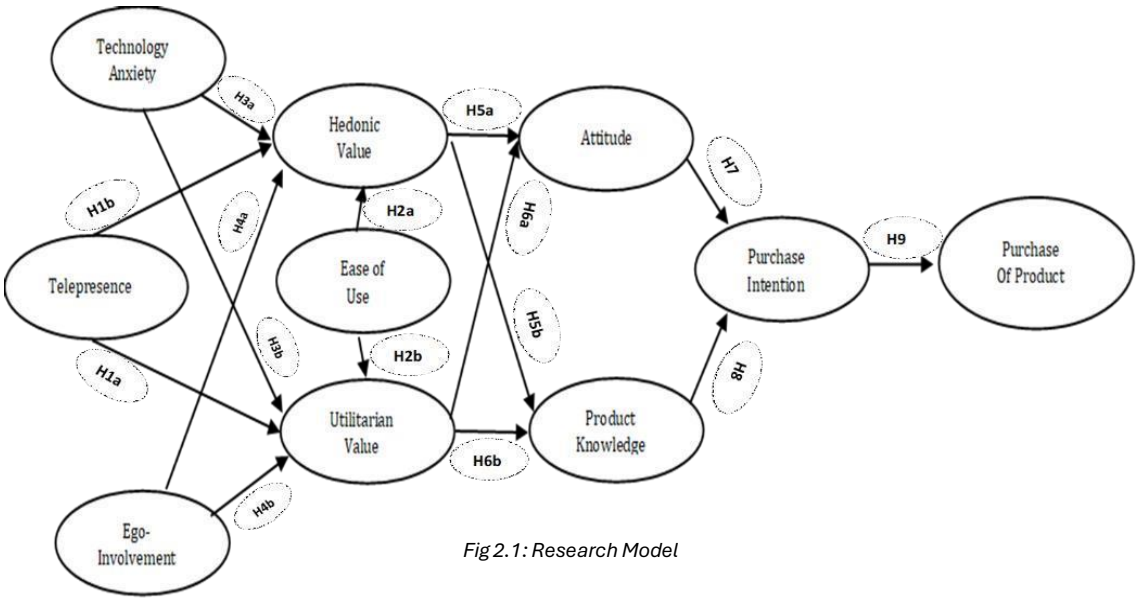

Fig 2.1: Research Model

Research Methodology and Results

This study adopts a quantitative research design, as data were collected using a structured questionnaire distributed to users. Curwin and Slater (2007) highlight that quantitative research yields more accurate results compared to qualitative methods because it incorporates responses from larger sample sizes, thereby enhancing the reliability and validity of the data. The research integrates both primary and secondary data sources to provide a robust platform for analysis. Initially, secondary data were utilized to examine prior studies, conduct a comprehensive literature review, and develop the research model. However, primary data were necessary to address existing research gaps and gain novel insights into factors influencing actual purchase behavior. The primary data revealed specific insights that could not be captured solely through secondary data. Forbes highlights that an average woman's daily facial routine involves applying 16 beauty products. Based on this insight, the study employed a convenience sampling method, focusing on Gen Z women as the sample population. This approach ensured relevance to the research objectives while maintaining feasibility in data collection. To understand the quantitative data collected through the questionnaire, a statistical software called Jamovi was used. Initially, the data from Google Forms was exported to Excel for converting the respondents' answers into numerical data and the questions that measured the variables were renamed according to it. As a part of the initial analysis, descriptive, frequency tools were used to get some understanding about the basic nature of the sample. A total of 153 responses was collected and analysed.

According to Michael T Kalkbrenner who has done a study on the topic "The Use of Cronbach's AlphaWhen Developing and Reporting Research Instruments in Science Education", we can understand that any data that has a Cronbach's alpha value greater than 0.7 is said to have a good internal consistency and reliability. The reliability of the constructs in this study was assessed using Cronbach's alpha, which measures the internal consistency of the items within each construct. The values for each construct indicate acceptable to excellent reliability, as Cronbach's alpha values above 0.70 are generally considered acceptable (Nunnally & Bernstein, 1994). Specifically, **Telepresence** reported a Cronbach's alpha of 0.763, while **Utilitarian Value** and **Hedonic Value** demonstrated strong

reliability with values of 0.865 and 0.831, respectively. **Ease of Use** showed a reliability value of 0.768, and **Technology Anxiety** achieved the highest reliability with a value of 0.971. Similarly, **Ego Involvement** exhibited strong internal consistency with a value of 0.840. The constructs **Attitude** and **Product Knowledge** reported reliability values of 0.757 and 0.719, respectively, reflecting their acceptability. Lastly, **Purchase Intention** and **Purchase of Product** achieved reliability values of 0.867 and 0.757, respectively. These results highlight the robustness and reliability of the data collected for this study.

The demographic analysis for the study was done with the help of descriptive analysis in Jamovi softwarewhich provided us valuable insights about the basic natures of the sample. Discussing the age distribution, most of the respondents (67%) come under the age category of 20 to 25 years, among whichthe highest concentration is observed at 20 and 24 years. A significant portion of the respondents were students (58%), followed by working professionals (41%). Furthermore, the frequency level for the field of study is MBA (41%), followed by diverse undergraduate programs such as BCom (17%) and BBA (1.4%).The residential status makes us understand that the majority of the participants (87%) belong to urban areas. In terms of educational qualification, about half of the participants (46%) hold undergraduate degrees, about 38% of them hold postgraduate degrees followed by higher secondary qualifications (15%).

Hypothesis Testing

The study tested all hypotheses using structural equation modeling (SEM), and the parameter estimates, along with fit indices, were analyzed (refer to Table 3 and annexure for detailed results). The findings revealed that telepresence

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has a strong positive influence on utilitarian value (β = 0.625, p < 0.001) and hedonic value (β = 0.7657, p < 0.001), suggesting that individuals experiencing higher telepresence from Nykaa's virtual try-on perceive enhanced functional and experiential benefits. Additionally, ease of use directly influenced both hedonic value (β = 0.2802, p < 0.001) and utilitarian value (β = 0.3946, p < 0.001), indicating that user-friendly features positively enhance these values. However, technology anxiety showed no significant impact on either hedonic value (p = 0.383) or utilitarian value (p = 0.102),

and ego involvement similarly exhibited no statistically significant relationship with hedonic value (p = 0.167) or utilitarian value (p = 0.152).

Further analysis demonstrated that hedonic value significantly influences attitude towards the product (β = 3.0715, p < 0.001) and product knowledge (β = 1.5301, p = 0.032), whereas utilitarian value positively affects attitude towards the product (β = 3.9339, p = 0.003) and product knowledge (β = 2.4883, p = 0.002). Attitude was found to directly influence purchase intention (β = 1.1203, p = 0.045), and product knowledge significantly increased purchase intention (β = 2.8628, p < 0.001). Finally, purchase intention strongly predicted the actual purchase of the product (β = 1.1392, p < 0.001), indicating that positive purchase intentions derived from the virtual try-on experience lead to actual purchase behavior. These findings provide robust insights into the relationships between virtual try-on features, consumer attitudes, and purchase behavior.

Table 2 Fit Indices

		95% Confidence Intervals		
SRMR	**RMSEA**	**Lower**	**Upper**	**RMSEAp**
0.044	0.081	0.076	0.087	<.001

The model demonstrates a good overall fit, as indicated by an SRMR value of 0.044, which is below the recommended threshold of 0.08, reflecting minimal discrepancies between the observed and predicted data. The RMSEA value of 0.081, with a 95% confidence interval ranging from 0.076 to 0.087, falls within the acceptable range (<0.10) but suggests room for improvement in model specification. Although the RMSEA p-value (<0.001) rejects the null hypothesis of a "close fit," the indices collectively support a reasonably well-fitting model.

Table 3

Parametric Estimates – Structural Equation Modelling Analysis

Dep	Pred	Estimate	SE	95% Confidence Intervals		β	z	p
				Lower	Upper			
POP	PI	1.1392	0.0169	0.17229	0.2061	0.8020	8.250	<.001
UV	EI	-0.0442	0.0309	-0.10481	0.0164	- 0.0402	- 1.431	0.152

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UV	TP	0.6250	0.0713	0.48527	0.7647	0.6476	8.767	<.001
UV	TA	0.0251	0.0153	-0.00496	0.0552	0.0303	1.637	0.102
UV	EU	0.3946	0.0669	0.26339	0.5258	0.4072	5.895	<.001
HV	EI	-0.1013	0.0359	-0.17161	-0.0310	- 0.0923	- 2.824	0.167
HV	TA	0.0158	0.0181	-0.01974	0.0514	0.0191	0.872	0.383
HV	TP	0.7657	0.0831	0.60296	0.9285	0.7948	9.220	<.001
HV	EU	0.2808	0.0754	0.13298	0.4286	0.2903	3.723	<.001
ATT	HV	3.0715	1.3259	5.67024	0.4727	3.2940	2.316	0.021
ATT	UV	3.9339	1.3268	1.33341	6.5344	4.2261	2.965	0.003
PK	HV	1.5301	0.8198	3.13696	0.0767	1.5386	1.866	0.032
PK	UV	2.4883	0.8225	0.87619	4.1004	2.5063	3.025	0.002
PI	ATT	1.1203	0.1610	0.19518	0.4357	0.1142	0.747	0.045
PI	PK	2.8628	0.1581	0.55291	1.1726	0.8740	5.457	<.001

Discussion

The results of the study provide information for the future applications of AR options in beauty product selling platforms by measuring the effectiveness of Nykaa's Virtual Try-on option by digging deeper intofactors such as telepresence, ease of use, hedonic value, utilitarian value, technology anxiety, ego involvement, attitude of a customer, product knowledge of a customer, purchase intention. The insights from the study adds and emphasize the findings of the research conducted by (Nikashemi et al., 2021) and (Hsu et al., 2011) as they have already proved that the telepresence and ease of use of an AR application influences the hedonic value and utilitarian value perceived by a customer after using the virtual try-on option in e-commerce platforms.

According to the studies of (Gabriel et al., 2023) and (Vieira et al., 2022), we can understand that virtual try-on option has created a positive influence on the customer satisfaction in Indonesia. This can be a strong proof for the present study's results in which the telepresence of the Nykaa's virtual try-on optionis ultimately leading to the purchase of product.

As per the research of (Gabriel et al., 2023), Most of the users of virtual try-on option needed information,pleasure, enjoyment and happiness at Indonesia. This was parallel

to the findings of this study as hedonicvalue and utilitarian value has a significant role in the intention to purchase of a consumer after using thevirtual try-on of Nykaa. Moreover, the behavior of people in Indonesia and the population of this study, which is from India differs from that observed by (Hsu et al., 2021) and (Butt et al., 2021) in Malaysia, (Nikhashemi et al., 2021) in (Taiwan, Hsu et al., 2021) in Korea, and (Butt et al., 2021) in China as theirintention was influenced by system quality and internet connectivity.Finally, while comparing the findings from the study of IKEA's virtual try-on option (the study from which the research model was adopted for the current study) which was done by (raska et al., 2017) with the findings of this research emphasizes the similarities and differences in the factors influencing the behavior of a same consumer within augmented reality (AR) environments. The ultimate goal of both

the studies was about the interplay of telepresence, ease of use, technology anxiety, and ego involvement on the impact on hedonic and utilitarian value and also their ultimate impact on the decision-making process of a consumer. The only difference is, the previous study was only about the purchase intention of the customer, But the present study also analyse whether the customer have purchased the product or not. Most importantly, in both the studies, telepresence plays the role of a significant predictor of hedonic and utilitarian values, emphasizing the significant role of immersive experiences in altering user's perception and satisfaction. From the result of both the study and the previously discussed studies, we can understand that the virtual experience integrated with a heightened sense of presence and engagement, shoots the user's happiness and emotional stimuli while using the virtual try-on option, which ultimately leads to the purchase of product through positive attitude. Thus, we can understand that telepresence is considered as a universal appealing factor across different AR application, which emphasizes the importance of customer engagement. Though the ease of use comes out as a significant factor that influences the hedonic and utilitarian value in both the studies, the level of its impact varies. In the IKEA study, we can observe that ease of use makes an immense contribution to hedonic value which demonstrates that an uninterrupted and flawless interaction with the virtual try-on platform enhances users' enjoyment and emotional engagement. On the other hand, in the research on Nika, ease of use is have an influence on the utilitarian value which

emphasizes that the efficiency and effectiveness of the platform in guiding the customers with their beauty and cosmetic choices should have a significant role in the Nika's customer satisfaction strategy. Moreover, the findings regarding the impact of technology anxiety and ego involvement offer interesting insight into the nuanced nature of consumer behavior in AR environments. In the IKEA study, it is proved that technology anxiety negatively impacts hedonic value, indicating that if a user has some discomfort with the technology can restrict their fun and satisfaction with the AR experience. However, in the research on Nika's platform, technology anxiety doesn't emerge as a significant predictor of either hedonic or utilitarian value. In the IKEA study, the age group of the sample population was between 45 to 50, but in the Nika study, greater part of the respondents comes under the age group of 20 to 24. According to the study of (Pires et al., 2020), we can understand that older people have more anxiety in using a newer technology when compared to younger people. Thus, we can assume that the difference in the significance of technology anxiety as a predictor of hedonic and utilitarian value in both the studies is because of the age factor.

Similarly, ego involvement is not found to be an important factor in both the studies, but the application of this finding may vary depending on the nature of the products or services provided. According to the study of (Ahmed et al., 2009) it is understood that consumers have a high ego involvement for a category of product which demonstrates greater brand loyalty. Thus, may be ego involvement can potentially influence furniture choices in which brand recognition and personal connection might be an important factor. Whereas results in the study of (Fiore et al., 2000) exhibits that even in categories like beauty and cosmetics, where functionality and aesthetics are considered as an important factor, there are some factors behind the functionality that can play an important role, which weakens the ego involvement's impact in this domain. Thus, ego involvement may have some role in purchasing furniture whereas lesser role in purchasing beauty products.

In conclusion, even though both the studies are offering numerous insights about the factors that influence the consumer behaviour in AR environments, some of the fine differences in their findings emphasizes the importance of contextual factors, user demographics and product characteristics for understanding about the consumer

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perceptions and preferences. By blending the findings from both the studies, an extensive understanding about the instruments driving consumer behavior in the AR space can be attained which enriches theoretical foundations and practical implications for marketers and developers alike.

Conclusion

The findings of this study must be interpreted with consideration of its limitations. The research did not account for cultural differences or country-specific variations in technology adoption, which may affect the generalizability of the results. Additionally, the study focused solely on Nykaa's AR virtual try-on option for beauty products, limiting the scope to one platform. Schwartz (2011) suggested that including multiple platforms or products can help mitigate personal biases and preferences. As such, findings for similar virtual try-on features on other platforms might differ. Despite these limitations, the study provides valuable insights into factors influencing customer purchase behavior, including the positive impact of Telepresence, Ease of Use, Utilitarian Value, and Hedonic Value on Product Knowledge, Attitude, and Purchase Intention. These findings emphasize the significance of well-designed virtual try-on features, offering actionable insights for marketing professionals, retailers, and product developers to enhance user experiences, optimize AR tools, and drive sales effectively.

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