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THE ROLE OF AUGMENTED REALITY IN IMPROVING CUSTOMER EXPERIENCE AND ENHANCING PURCHASE INTENTION IN DIGITAL RETAIL STORES IN SAUDI ARABIA

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ABSTRACT

This study aimed to investigate the impact of augmented reality (AR) on customer experience and purchase intention. The study employed an analytical approach using structural equation modeling (SEM) and administered a questionnaire to 200 participants. The results showed a statistically significant effect of AR dimensions on customer experience, with informational benefit having the highest impact ($\beta = 0.41$, $p < 0.001$), followed by interactivity ($\beta = 0.34$, $p < 0.001$), and then dynamism ($\beta = 0.21$, $p < 0.001$). The results also indicated that customer experience significantly influences purchase intention ($\beta = 0.61$, $p < 0.001$), explaining 57% of its variance ($R^2 = 0.57$). Furthermore, the study confirmed an indirect effect of AR on purchase intention through customer experience ($\beta = 0.20$, $p < 0.001$). The study concluded that augmented reality plays a general role in enhancing the buying experience and consumer behavioral values within the digital shopping environment.

KEYWORDS: Augmented Reality, Customer Experience, Purchase Intention, Digital Marketing, Saudi Arabia.

1. INTRODUCTION

The recent years experienced a surge in the growth of interest toward augmented reality (AR) and virtual reality (VR) technologies in different industries, such as retail, education, healthcare, real estate, and hospitality. This is because of the interactive and immersive nature of the experiences that these technologies can provide, and this improves the consumer experience and increases the decision making. AR in digital retailing applications is employed to superimpose visual elements on the real world to increase the visual perception of the consumer. In the meantime, VR builds entirely virtual spaces, and it is possible to shop in a fully built virtual shop (Fan et al., 2025). It also aids in the promotion of sustainability by addressing the use of large warehouses, reduction in returns, and waste by providing an alternative to the physical store digitally (de Oliveira Santini et al, 2020).

Although augmented reality is commonly used, the literature on the topic still presents ambivalent findings on what factors affect purchase intention. As an illustration, one of the studies observed that perceived risks, including privacy and health risks, have negative influence on intuitive and practical benefits and purchase intention (Herz and Rauschnabel, 2019), while (Pillai et al., 2020) revealed that there is a positive correlation between insecurity and purchase intention. The result of this gap implies that further research is necessary to decode the contextual issues that determine consumer experience.

The high pace of digital technologies evolution has radically transformed the classic patterns of shopping, making AR an important device in the process of transforming the customer experience. It allows customers to feel the products virtually thus making the assessment process more explicit and credible. It has been affirmed that AR has transformed the interaction of customers with the brands through the smooth fusion of the virtual and real worlds (Kim et al., 2021). According to other studies, AR-based marketing campaigns raise customer loyalty and have a positive impact in terms of making purchasing decisions (Gao and Liang, 2025).

Digital infrastructure issues and privacy concerns are adding weight to AR research in the emerging markets. The scientists have also demonstrated that consumers in certain countries are still afraid to use AR applications because of the worries about their financial security, accuracy of the products, and the safety of their personal information, which affects the intentions to purchase despite the high level of experience the technology can provide (Rajagopal et al., 2024; Nagpal et al., 2025). In that connection, interactive and vividness traits of AR are relevant to affect the degree of experience engagement and immersion, which lead to a rise in perceptions of value, usefulness, and enjoyment, and, therefore, to purchasing intentions (Steuer., 1992; Yim et al., 2017).

From another perspective, major global companies like Apple, Google, Amazon, and Alibaba have extensively implemented the use of AR to enhance interaction and loyalty, and 75 percent of consumers said they would use it in-store, with 71 percent willing to buy more often if offered by the stores (Oyman et al., 2022; Xu et al., 2024) The use of the TAM model in the explanation of cognitive and behavioral impacts related to AR has also shown that ease of use and perceived usefulness are critical intermediating variables in buying In this regard, research on the role of AR in customer experience and purchase intention in relation to the growing digital transformation in the Kingdom of Saudi Arabia is an urgent scientific and practical requirement to facilitate the digital retail setting and allow companies to create more efficient and impactful shopping experiences.

2. LITERATURE REVIEW

AR is currently one of the most significant digital innovations applicable in enhancing the marketing procedures and customer experience in the online shopping setting. AR refers to the straightforward incorporation of virtual components in the real life setting of the user where they can engage with digital information in a lifelike scenario. This improves product knowledge and minimizes the confusion surrounding the process of buying the product. AR may be regarded as a more realistic technology as well since it does not entirely substitute the real environment, but supplements it (Rejeb et al., 2021). The main idea of the AR technologies is to enhance the engagement and the experience of the purchasing process by enabling users to simulate and experience goods virtually in the real-world (Rauschnabel et al., 2022).

AR applications can be classified into four types, including shopping applications,

informational applications, entertainment applications, and social networking applications, as they are prevalent use and adoption among consumers in the marketing context (Smink et al., 2022). These literature sources have demonstrated that the perceived value of the elements of the virtual environment that has been incorporated into the consumer environments contributes to a perception of value and an interactive experience that adds perceptual realism, which subsequently contributes to the perception of the image of the product and an increase in the purchase intention (Hoffmann et al. 2022). Studies have also found that the feature of AR to make a consumer visualize a product when it is in actual use, like the visualization of furniture in the house or receiving a beauty treatment, is closely linked to the decrease in doubt and the boost of confidence in the purchase decision (Yang et al., 2024).

Customer experience (CEO) is a concept that is multidimensional, i.e., it involves cognitive, emotional, behavioral, and sensory elements of interaction of a customer with products or services. AR serves as an instrument to provide a high-sensory experience involving the use of the kinesthetic, visual, and auditory stimulus to stimulate the cognitive satisfaction of the consumer (Yim et al., 2017). The telepresence concept is a major factor that justifies the effects of AR on CEO. According to Steuer, telepresence refers to the sense of being in an unreal world by the user due to the interaction with a technological media (Steuer et al., 1992). As revealed in the literature, AR characteristics like interactivity and vividness are very essential in improving mindfulness. Interactivity enables users to manage and manipulate virtual objects and engage with the online space, whereas vividness adds to a high visualization of information and promotes engagement (McLean and Wilson, 2019; Kim et al., 2021).

Studies has established that interactivity and vividness are some of the inputs towards the creation of flow experience, which is a state of cognitive and emotional immersion that enhances user attention and enjoyment whilst engaging with the technology. The results of the research by Barhorst et al. (2021) and Lin and Huang (2024) have proven that a flow experience is one of the key intermediaries between the characteristics of AR and the outcome of a consumer behavior, which is directly related to the increase in satisfaction, improvement of cognitive assessment, and additional level of use and purchase intention.

On the other hand, purchase intention is another variable that has been given a great attention in literature because it is one of the main predictors of actual buying behavior. Research indicates that the intention to buy is affected by a set of factors such as the perceived usefulness, trust, quality of information, perceptual experience, and interactive enjoyment. With regards to AR, it has been demonstrated in literature that greater product clarity, less ambiguity, and greater realism have a positive relationship with purchase intention (Kumar and Srivastava, 2022). Research has also found out that AR is associated with cognitive (e.g., better quality of information) and affective (e.g., enjoyment and immersion) advantages, which are both motivating features of the purchasing behavior (Hilken et al., 2017).

In this respect, the perceived risk variable plays a central role when it comes to the response of consumers to AR technologies. It has been demonstrated in the literature that perceived risks are multidimensional and include financial, performance, time, psychological, and privacy risks (Nagpal et al., 2024). It is believed that consumers, especially in the developing world, can be reluctant to use AR because of the fear of data security, the accuracy of displaying the product, or the complexities of the technology (Behe et al., 2015). Although AR can enhance the level of product visibility and decrease uncertainty, it can also raise issues related to digital security or the performance of an application (Khanum and Nagpal, 2019).

Some of the models that determine consumer attitudes towards AR include technology acceptance models like the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Fan et al., 2025). In addition, the contextualization of TAM with AR assists in explaining the impact of enhanced experiences on the perceived usefulness and ease of use, which leads to attitudes and the intention to purchase (Whang et al., 2021).

Based on the above, this study provides a conceptual framework that assumes that the characteristics of augmented reality (AR) in digital stores including interactivity, dynamism, and informative value helps in enhancing the customer experience through augmented immersion and visual perception, less ambiguity in product analysis, and greater customer self-

confidence in their purchasing decision. Customer experience is a psychological and cognitive process that converts the implications of the AR qualities to the purchase intention, and hence a significant mediator in the interpretation of how the implications of technological experience would be passed to real purchasing behaviour. Hence, the quality of AR application improvements is likely to positively influence customer experience and, subsequently, improvement in purchase intentions among Saudi digital shoppi

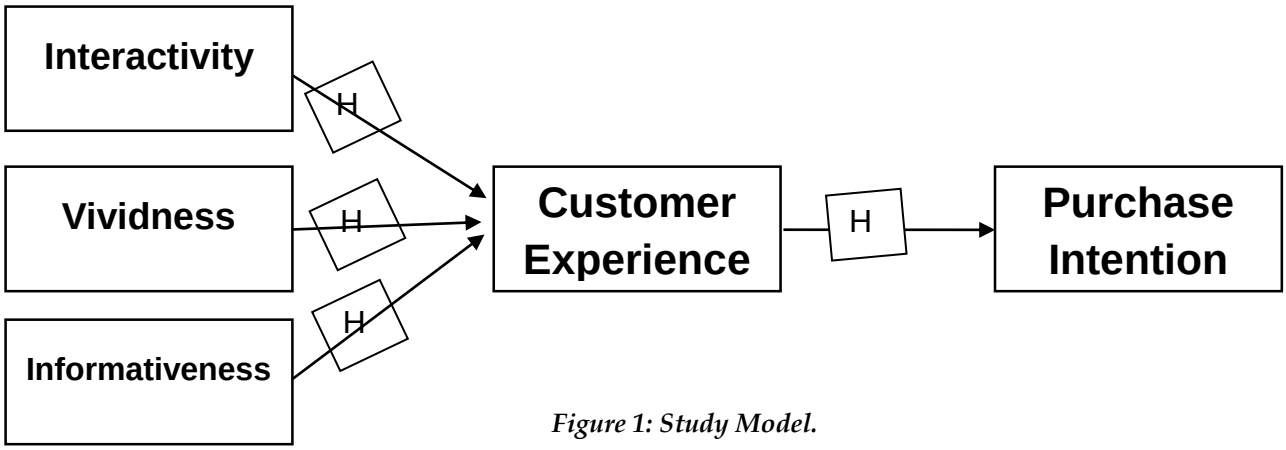

Figure 1: Study Model.

Based on this model, the current study posits the following hypotheses:

- H1: Interactivity in augmented reality applications positively impacts the customer experience in digital retail stores.
- H2: Vividness in augmented reality applications positively impacts the customer experience in digital retail stores.
- H3: The informative value provided by augmented reality applications positively impacts the customer experience in digital retail stores.
- H4: The customer experience positively impacts purchase intention in digital retail stores.
- H5: The customer experience mediates the relationship between augmented reality and purchase intention.

3. METHODOLOGY

3.1. Study Design

The current study has taken the descriptive-analytical approach, which is considered as the most appropriate in the nature of the research, as it was intended to examine the role of augmented reality features in increasing the customer experience and purchase intention in digital retail stores in Saudi Arabia. By doing this, it is possible to describe the technological phenomenon as it occurs under the real-life circumstances in the marketing area and then to run statistical tests on variables to test the theoretical model and the hypotheses set. The research design was also cross-sectional, which involved the data collection of the participants in a single period, which is a very appropriate approach in research of consumer behavior and digital marketing technologies.

Since the proposed model carries a number of latent variables and direct and indirect relationships, structural equation modeling based on partial minimum squares (PLS-SEM) was applied. This is one of the most widespread methods in the research concerning digital technologies and customer experience. It is also defined by its capacity to process average samples, complex models, and without the presence of normal distribution of data among others, besides its emphasis on the predictive ability of the model. All the analyses were done by use of Smart PLS 4 software.

3.2. Study Population and Sample

The study population consisted of all consumers in Saudi Arabia who had used previously the augmented reality (AR) applications in obtaining shopping in the digital stores, either in the experience of virtual products, visualizing products in the reality setting, or by utilizing visual interaction technologies. The high population size of the population and the fact that it was hard to obtain certain lists of real AR users led to the application of the purposive sampling method to those who fitted the criteria of the study.

The questionnaire was sent through the electronic

version with the help of the most used social media in the Kingdom, including WhatsApp, Instagram, Snapchat, and Twitter (X) and a snowball sampling approach was also used to increase the number of respondents. After reviewing 230 initial responses, it occurred that 200 responses were complete and valid responses, and this was an adequate sample size to use in the analysis of PLS-SEM.

3.3. Study Instrument

Regarding the measurement tool, the study used an online survey relying on the previous literature and supplemented with the instruments employed in augmented reality (AR) studies, customer experience (CRE), and the purchase intention analysis. The initial part was the demographic information, connected with gender, age, educational level, and the kind of digital store utilizing AR technology. This was to characterize the sample and make comparisons about the results in accordance with various characteristics.

The second part was an AR Experience Scale, which was developed based on studies by Yim et al. (2017), McLean and Wilson (2019), and Steuer (1995). It touched on interactivity, Vividness and Informativeness. The third part gauged customer experience in its behavioral, sensory, emotional, and cognitive aspect. The fourth section involved purchase intention scale depending on the behavioral models applied in digital marketing (Kumar and Srivastava, 2022). Each of the items was created based on five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). To guarantee apparent and content validity, the questionnaire was vetted by a group of professionals with a background in digital marketing and consumer behavior and a pilot study was conducted on a small sample of respondents (40) to make sure that the wording of the questions was refined and clarified

3.4. Data Collection and Analysis

The online questionnaire that was used in the study to gather data in a four-week period was administered through major social media networks: WhatsApp, X, Instagram, and Snapchat. The study utilized snowball sampling method to augment the participation and include the users who have proven AR shopping experience. The ethical standards of conducting research were observed: the participants were informed regarding the academic nature of the study, their participation in the study was voluntary, and total confidentiality was guaranteed as no personal data of the participants were gathered.

The analytical methods used to analyze data were two-stage PLS-SEM. First, measurement model was validated to check the reliability of indicators, internal consistency reliability (Cronbach's Alpha, Composite reliability) and convergent validity (AVE) as well as the discriminant validity using Fornell-Larker criterion and HTMT ratios. Items that recorded a low factor loading were reviewed and eliminated only when their removal could result in a better construct validity. Second, path coefficients among constructs were estimated, statistical significance of path coefficients assessed using bootstrapping with 5000 subsamples, and the explained variance (R^2) and effect sizes (f^2) were interpreted and the relevance of predictive (Q^2). The standardized root mean square residual (SRMR) was used to measure model fit to have acceptable global model fit. The mediation effects were investigated according to the recommendations provided in Zhao et al. (2010) study to find out whether the customer experience mediates between the purchase intention and the attributes of AR experience. Such a stringent format of analysis allows conducting a solid empirical analysis of the theoretical framework and offers a good methodological basis to the conclusions of the study.

4. RESULTS

Table 1 presents the demographic features of the study sample of 200 respondents. The data show that the gender distribution is not very disproportionate, males are 55%, and females are 45%, which is in line with the patterns of digital technology usage in the Saudi market which show that there is extensive penetration of digital technology by both males and females. The findings also shows that the most represented age group is young adults aged 25–34 (40%), followed by those under 25 (30%). This is the nature of this age group, which is the most engaged with AR applications and the most active user of digital platforms.

Among the educational level, the highest percentage of the sample was represented by the people having a bachelor's degree (64%), and the postgraduate degree represented (25%) of the sample. This offers the analysis in the study the depth of analysis because these educational groups tend to be well equipped in terms of technology as well as being in a better position to analyze interactive technologies. As far as the categories of shopping that use augmented reality (AR) applications most, fashion and beauty were the first (45), home and furniture were second (27.5), and electronics third (17.5). This is by the global trends of utilizing AR in the locales that necessitate an intricate outlook of the

product prior to buying it. All these indicators prove that the sample represents a real part of real consumers who use AR technologies in the framework of online shopping.

Based on the findings of the measurement model, the first assessment showed that there are some items with low factorial loads (less than 0.70). This then eliminated these items on the methodological considerations embraced in the PLS-SEM models and only high and significant factorial loaded items remained. As a result, the augmented reality dimensions became stabilized featuring three components (interactivity, dynamism, and informativeness) and four items with high measurement quality. The item count in the customer experience and purchase intent metrics was set to five items each, having ensured that all items were of high statistical quality and theoretical consistency, so that it can be confidently used to test the structural models. The factorial loads of all items were strong (more than the minimum acceptable threshold 0.70) which indicates that there is a strong correlation between them and the underlying variables that they are measuring. This validates the quality of the conceptual framework of the instrument when the weaker items, **Table 2**.

Moreover, the internal reliability measures indicated that all the variables scored high in Cronbachs Alpha, rho A, and Composite Reliability (CR) values between 0.84 and 0.93 that is higher than the acceptable minimum (0.70), and they were high in terms of internal consistency of the items. Values of the extracted mean variance (AVE) of all the variables also surpassed the level of 0.50 indicating convergent validation and that the underlying structures can explain a significant proportion of the variance in the indicators. In terms of discriminant validity, the HTMT results indicated that all the values were below 0.85, which, in turn, shows that there was a clear distinction between the three dimensions of augmented reality and the two variables of customer experience and purchase intention and no conceptual overlap that could influence the interpretation of causal relationships. These findings indicate that the measurement model has high quality psychometric measure after purification process and that it is possible to confidently transition to the structural model testing and hypotheses of the study, **Table 3**.

Once the validity of the measurement model was confirmed, the quality of the structural models was tested to determine the capability of the proposed model in explaining the relationship existing between the variables. The accepted model fit indicated the results of the model fit that the overall SRMR value was 0.046 that is less than the acceptable level of 0.08. The NFI value was 0.93, exceeding the acceptable reference value of 0.90, proving that the extent of data fit to the proposed model is good. As to the explanatory power of the model, Customer Experience (CRE) value had an R^2 value of 0.62, which suggests that the three dimensions of augmented reality (interactivity, dynamism, and informativeness) explain 62 percent of the variance of the customer experience. This value is considered e moderate to strong based on the criteria of Chin (1998). Purchase intension had a value of R^2 about 0.57 meaning that the customer experience would explain 57 percent of the purchase intension variation. Such a great percentage indicates the power of the model to explain purchasing behavior in digital retail environments.

Regarding predictive value, the Q^2 results (with blindfolding) were positive values of Q^2 = 0.41 of customer experience and Q^2 = 0.38 of purchase intention. These values are positive and, therefore, show that the model is highly predictive according to the standards of Hair et al. (2022). The effect size (f^2) analyses showed that interactivity dimension has medium effect size (0.19) and vitality dimension has small to medium effect size (0.11).

The informative usefulness dimension, however, had the largest effect size (0.24) on customer experience, reflecting the importance of the informative content to the user response of augmented reality technologies. Thus, these findings indicate that the structural model is of high quality in terms of predictive and explanatory strengths and that the relationships between the causal variables are consistent with the with theoretical assumptions.

The results of the structural model supported all the hypotheses proposed in the study, which testifies to the high quality of the theoretical model and its potential to explain the impact of augmented reality technologies on customer experience and shaping purchase intentions within digital retail environments. The results related to the first hypothesis showed that interactivity has a statistically significant positive effect on customer experience ($\beta = 0.34$, $T = 6.120$, $p < 0.001$), indicating that the possibility of having control over the virtual elements and an immediate feedback system have an important impact on improving the quality of the emotional and cognitive experience of the customer. This can be attributed to the literature which highlights dynamic interaction as one of the pillars underpinning the creation of immersive and high-value experiences in augmented reality applications.

The second hypothesis demonstrated that dynamism is a significant component in shaping the customer experience (β = 0.21, T = 3.85, p < 0.001). The findings reveal that the visual contents, the crispness of the elements and richness of the visual details directly affect the user perception of realism and enjoyment in the experience, thereby increasing the user interaction and engagement into the product review process.

Regarding the third hypothesis, informative usefulness was the most influential variable on the customer experience (β = 0.41, T = 7.02, p < 0.001). This offers good reasons to suggest that the provision of accurate, reliable, and useful information by augmented reality technologies helps to decrease the ambiguity, enhance the value perception, and increase the user confidence that, in its turn, enhances the overall user experience.

The fourth hypothesis, which tested the relationship between customer experience and purchase intention, yielded very strong results (β = 0.61, T = 11.30, p < 0.001), confirming that the rich and interactive experience that augmented reality provides does not only increase emotions and perception but also customer willingness to make a purchase decision. This reveals that customer experience is an important role in acting as the interpreter between technology and actual consumer behavior.

Finally, the findings supported the fifth hypothesis (The mediating role of customer experience). between augmented reality and purchase intention where there is an indirect effect (β = 0.20, T = 5.70, p < 0.001). This suggests that the impact of the augmented reality technologies is not directly related to the purchase intention but directly tends to affect the user in terms of its ability to augment the perceptual and sensory experience of the user. Therefore, customer experience is a key explanatory variable in the process of augmented reality improving the purchase intention in the digital stores, **Table 4**.

Overall, these findings attest to the importance of interactivity, dynamism, and informative value in developing a powerful experience in the augmented reality setting, and that customer experience is a primary psychological and behavioral phenomenon in the determination of the purchase intention, hence, advancing the use of augmented reality applications in the online shopping industry.

Table 1: Demographic Characteristics of The Study Sample (N = 200).

Variable			Frequency	Percentage %
Gender			*Male*	110	55
			Female	90	45
Age			*< 25 years*	60	30
			25–34 years	80	40
			35–44 years	40	20
			≥ 45 years	20	10
Educational			*High school*	22	11
			Bachelor's Degree	128	64
			Postgraduate	50	25
AR Shopping Category			*Fashion & Beauty*	90	45
			Home & Furniture	55	27.5
			Electronics	35	17.5
			Others	20	10
Total				**200**	**100**

Table 2: Shows The Structure of the Instrument and Factor Loading.

Variable	Item	Statement	Loading
Augmented Reality Scale			
Interactivity	IN1	The augmented reality application allows me to control how the product is displayed.	0.84
	IN2	The system responds quickly to my selections during the AR experience.	0.87
	IN3	I feel that the application responds smoothly to my movements.	0.82
	IN4	The experience allows me to rotate, open, and inspect the product easily.	0.86
Vividness	VI1	The virtual elements appear clear and highly detailed.	0.85
	VI2	The augmented reality experience provides images that are close to reality.	0.83
	VI3	The application has very appealing colors and visual effects.	0.80
	VI4	The image quality of the experience makes me imagine the product as though it has become a reality.	0.88
Informativeness	IF1	The application offers explanatory information on the product.	0.89
	IF2	The augmented reality experience makes me learn the features of the product.	0.87

	IF3	The data presented in the context of AR is correct and topical.	0.84
	IF1	The application facilitates product comparison by offering clear information.	0.86
Customer Experience	CE1	The augmented reality experience made me feel enjoyment while shopping.	0.90
	CE2	The experience helped me understand the product more clearly.	0.88
	CE3	The AR experience increased my engagement during shopping.	0.85
	CE4	The experience provided me with a sense of confidence toward the product.	0.84
	CE5	The experience positively influenced my evaluation of the product.	0.87
Purchase Intention	PI1	I am seriously considering purchasing the product after experiencing it through AR.	0.91
	PI2	The AR experience increases the likelihood that I will purchase the product.	0.88
	PI3	I feel that the experience brings me closer to making a purchase decision.	0.86
	PI4	I would recommend others to use AR before making a purchase.	0.83
	PI5	The experience positively influenced my purchase decision.	0.89

Table 3. Reliability And Validity.

Construct	CR	(rho_a)	(rho_c)	AVE
Interactivity	0.88	0.89	0.91	0.72
Vividness	0.86	0.87	0.90	0.69
Informativeness	0.89	0.90	0.92	0.74
Customer Experience	0.91	0.92	0.94	0.78
Purchase Intention	0.92	0.93	0.94	0.80

Table 4. Results Of the Hypotheses.

Construct	β	T	P
Interactivity → Customer Experience	0.34	6.120	0.000
Vividness → Customer Experience	0.21	3.85	0.000
Informativeness → Customer Experience	0.41	7.02	0.000
Customer Experience → Purchase Intention	0.61	11.30	0.000
Augmented Reality → Customer Experience → Purchase Intention	0.20	5.70	0.000

5. DISCUSSION

The results of the study indicate that the proposed model has overlapping results with the recent literature explaining the role of augmented reality (AR) technology to improve customer experience and the purchase intention in digital retail settings. As illustrated in the structural model, the three dimensions of AR such as, interactivity, dynamism, and informativeness proved to be a key determinant in the perception of customer experience. This aligns perfectly with theoretical approaches explored by researchers such as Fan et al. (2025) and Kim et al. (2021) investigated, stating the interactive and immersive character of AR and its contribution to improving visual perception and emotional involvement of the user.

Findings supported the hypothesis that interactivity serves as a major force to enhance customer experience was found to be statistically significant with a positive effect ($\beta = 0.34$, $p < 0.001$). This is consistent with the literature stating that the more users have control over the virtual elements, the higher the engagement and empowerment levels in the experience (McLean and Wilson, 2019). This finding is supported by studies conducted by Rauschnabel et al. (2022) Interactivity serves as the extremely important point that allows transferring the user to active engagement rather than passive reception and makes the experience feel more real and engaging.

Vividness demonstrated a significant positive impact ($\beta = 0.21$, $p < 0.001$), which is why it is important to pay attention to the quality of visual content and its realism as a means of achieving an immersive effect. This aligns with Yim et al. (2017), who found that the rich visual details lead to more sensory perception and more involvement of emotions. Hoffmann et al. (2022) also discovered that vitality has a direct relationship with further customer trust in the product due to decreased ambiguity and indecisiveness before making the decision.

The findings indicate that informativeness was the strongest influence on the customer experience ($\beta = 0.41$, $p < 0.001$), which should highlight the primary role of the correctness of information in building cognitive trust and reducing skepticism particularly in online situations when concerns related to accuracy and privacy are high, as noted in the studies by Nagpal et al. (2024) and Rajagopal et al. (2024). This observation supports the fact that augmented reality applications should be improved with informational value that plays a significant role in creating a good experience and equipping the

consumer to make buying decision.

It was also shown that the customer experience is an important variable that can be used in determining purchase intention as the effect size ($\beta = 0.61$, $p < 0.001$) is significant. This strong finding supports previous studies such as Hilken et al. (2017) and Gao and Liang (2025), which viewed immersive experiences as a psychological and cognitive anchor that improve purchasing readiness. It is especially obvious in the context of digitalized shopping where people do not have direct access to sensory feedback, and augmented reality is used as a compensatory tool which is also effective in terms of minimizing the gap in trust.

The findings also confirm the hypothesis of the mediating role of customer experience between augmented reality (AR) and purchase intention. The indirect effect was significant ($\beta = 0.20$, $p < 0.001$), which is correlated with the TAM framework and theory of telepresence. This is because telepresence assumes that perceptual and emotional impacts of technology are a psychological medium, which converts the features of the system into real performance. In such a way, the research emphasizes the role of customer experience as the connector that can be used to comprehend how features of AR are converted into real behavioral effects.

The importance of the given model is especially clear in the context of Saudi, as the Kingdom is currently experiencing a fast digitalization process, and businesses start to consider the use of AR technologies as an element of their marketing mix. The research validates that the creation of a rich, low-risk digital experience will help to boost Saudi consumer confidence, particularly in those areas that have recorded the highest level of usage like in fashion and beauty (45%).

On the results, the study recommended that the Saudi digital firms should work on the improvement of interactivity, the quality of visual content, and the informational diversity in the augmented reality applications as they directly influence the creation of a smooth customer experience, which will make the purchase more likely. It is suggested that companies should create new content schemes that minimize the ambiguity of the users and invest in the enhancement of the quality of real-time communication as it plays a major role in perceived value. It should also be the case that retailers create specific marketing campaigns that would capitalize on the mediation results of the study and create digital experiences that would contribute to trust and reduce the psychological and cognitive risks linked to digital purchase.

6. CONCLUSION

The study reveals that augmented reality (AR) technologies are significant in influencing the customer experience and developing purchase intentions in online stores. In their inherent qualities of being interactive, dynamic, and informative, they play a central role in creating an experience of immersion which is a mediator in the conversion of technological interaction into real purchase intent. The findings affirm that customer experience is the major engine in this process, and that any investment in improving the quality of experience using AR is a major strategic driver to firms that are in the digital retail industry, especially with the high rate of digital transformation in Saudi Arabia. Therefore, the research offers a scientific basis that can be used to create more effective and efficient models of digital shopping and optimize the prospects of merging technology with the consumer behavior in the contemporary digital ecosystem.

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