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The Impact of Augmented Reality on Consumer Purchase Intention: The Mediating Role of Hedonic and Utilitarian Value

Dr. Lokesh. S[1], Dr. Menaga.A[2], Dr. Anitha. V[3], Dr. A.R. Krishnan[4]

[1]Assistant Professor, SRM Institute of Science and Technology, Faculty of Management, SRM Nagar, Kattankulathur, Chennai, Tamil Nadu 603 203,

Email ID: Lokeshs3@srmist.edu.in

[2]Assistant Professor, St. Joseph's College of Engineering, Faculty of Management, Old Mahabalipuram Road, Kamaraj Nagar, Semmancheri, Chennai, 600119,

Email ID: menagalokesh@gmail.com

[3]Assistant Professor, Sri Sairam Engineering College, West Tambaram, Chennai – 44

Email ID: anitha.ramananmba@gmail.com,

[4]Professor, Faculty of Management, SRM Institute of Management, Kattankulathur, Chennai 603202,

Email ID: krishnar1@srmist.edu.in

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KEYWORDS

Augmented Reality, Consumer Purchase Intention, Hedonic, Utilitarian Value

ABSTRACT

The impact of augmented reality (AR) attributes on hedonic and utilitarian values remains a topic of considerable ambiguity. Understanding how AR features contribute to emotional enjoyment and practical functionality is essential for designing effective marketing strategies, with this aim the research investigates the role of augmented reality (AR) attributes in creating purchase intentions, with hedonic and utilitarian values as mediating variables. The research synthesizes 20 quantitative studies on augmentation reality using meta-analysis. the study findings highlight interactivity and vividness as the most significant AR features, they are influential in fostering users enhance consumer experiences and creates the purchase intenstion of the consumers. Overall study provides valuable insights into the role of AR attributes in influencing consumer behavior, offering a foundation for developing more effective marketing strategies.

1. INTRODUCTION

Augmented Reality (AR) has become a groundbreaking technology, integrating virtual elements into real-world environments to enhance user experiences (Azuma, 1997). Its widespread application across industries such as marketing, education, healthcare, and entertainment demonstrates its potential to transform consumer engagement and interaction (Scholz & Smith, 2016). However, the extent to which AR attributes influence consumer behavior, particularly in shaping hedonic and utilitarian values, remains underexplored. Understanding how AR features contribute to emotional enjoyment and practical functionality is essential for developing effective marketing strategies (Poushneh & Vasquez-Parraga, 2017). This research investigates the role of AR attributes in driving purchase intentions, emphasizing the interceding role of hedonic and utilitarian values, with the aim of offering valuable insights for academics and industry practitioners alike.

The adoption of Augmented Reality (AR) has expanded across various sectors, each leveraging its unique ability to merge digital content with physical spaces. In the retail industry, Augmented Reality (AR) transforms the shopping experience by enabling consumers to interact with products in innovative ways, such as virtually trying on items, visualizing furniture within their living spaces, or accessing detailed product information, thereby creating utilitarian value through convenience

and efficiency (Poushneh & Vasquez-Parraga, 2017). Similarly, in education, AR transforms traditional learning methods by providing immersive simulations and interactive content, fostering deeper engagement and emotional satisfaction, which aligns with hedonic value (Bacca et al., 2014). Healthcare has also embraced AR for applications such as surgical assistance, where real-time visuals aid precision and functionality, delivering both practical utility and confidence to practitioners and patients (Barsom, Graafland, & Schijven, 2016).In the entertainment sector, AR drives hedonic value by creating immersive gaming experiences, such as Pokémon GO, where players interact with virtual elements in real-world environments, resulting in heightened enjoyment and engagement (Laato et al., 2020). Meanwhile, AR's utility extends to manufacturing and maintenance, where it streamlines processes by providing step-by-step instructions and real-time feedback, significantly improving task efficiency and accuracy (Radu, 2014). These examples underscore AR's dual capacity to create both hedonic and utilitarian value, making it a versatile tool for innovation across industries.

Consumer purchase intention, a key metric for businesses, is heavily influenced by the value consumers perceive from their shopping experience. Hedonic value, associated with enjoyment and sensory gratification, and utilitarian value, which emphasizes efficiency and practical benefits, both play a significant role in shaping purchase intentions. AR technology has the potential to enhance these values by providing a rich and engaging shopping experience, but understanding its impact on consumer purchase intentions remains a topic of growing interest among researchers.

2. LITERATURE REVIEW

Vividness, a critical attribute of augmented reality (AR), refers to the richness and sensory depth of virtual content integrated into real-world environments. Recent research highlights its significant impact on both utilitarian and hedonic values, shaping consumer perceptions and behaviours. In the retail domain, vivid AR experiences have been shown to enhance utilitarian value by providing detailed, realistic visualizations that aid in decision-making. Attri et al. (2024) found that vividness in in-store AR applications positively influences consumers' utilitarian perceptions, leading to better decision-making and stronger purchase intentions. Similarly, vivid AR content contributes to hedonic value by offering immersive and emotionally engaging experiences. For instance, Ma et al. (2024) examined AR applications in museum contexts and reported that vivid AR elements enriched visitors' enjoyment and psychological well-being, thereby heightening their hedonic value perceptions. AR technology has been widely adopted across various industries, particularly in retail, due to its ability to enhance consumer engagement. According to a study by Pantano et al. (2020), AR applications in retail provide consumers with realistic product visualization and interactive experiences, which increase satisfaction and willingness to buy. Similarly, Javornik (2016) emphasizes that AR's interactivity fosters a deeper connection between consumers and products, influencing their decision-making process.

Negm (2024) emphasized that AR attributes, particularly vividness, simultaneously foster both utilitarian and hedonic values. These enhanced values influence consumer engagement with brands and their subsequent purchase behaviors. The dual impact of vividness underscores its importance in creating functional utility while simultaneously offering emotional satisfaction. In summary, vivid AR experiences significantly enhance both utilitarian and hedonic values, making it a pivotal element in designing effective AR-based marketing strategies. Purchase intention reflects a consumer's likelihood of buying a product and is influenced by psychological, social, and technological factors. As highlighted by Kim and Forsythe (2008), technologies that enhance product presentation significantly impact consumer confidence and buying decisions. The integration of AR into the shopping process addresses common online shopping barriers, such as the inability to physically interact with products, thereby improving purchase intention.

Augmentation refers to the ability of AR to overlay the physical world with virtual elements, creating an enriched user experience (Javornik, 2016). In the existing literature, augmentation is categorized into three distinct types: self/body augmentation, product augmentation, and environmental augmentation. This feature is widely regarded as one of the most pivotal and unique characteristics of AR, playing a significant role in shaping consumers' hedonic value and emotional responses (Watson et al., 2018).

Javornik (2016) conducted a seminal study identifying perceived augmentation as a key media attribute of AR, highlighting its critical influence on the flow experience, particularly in fostering enjoyment and engagement. Subsequent research has reinforced these findings, consistently demonstrating that perceived augmentation impacts both hedonic and utilitarian values (Hilken et al., 2017; Javornik, 2016; Kumar & Srivastava, 2022).

Augmented Reality (AR) attributes have emerged as pivotal factors in influencing consumer purchase intentions, with research highlighting their role in enhancing customer experiences and decision-making processes. These attributes, including interactivity, vividness, and augmentation, significantly impact perceived value, which in turn drives purchase behavior.

Interactivity in AR enables consumers to engage with products in real-time, creating personalized and immersive experiences. Studies have shown that interactivity fosters a sense of control and engagement, which enhances both utilitarian and hedonic values (Poushneh & Vasquez-Parraga, 2017). This dual value creation is instrumental in increasing purchase intentions, as consumers are more likely to buy products, they feel connected to through interactive experiences (Hilken et al., 2017). The dual dimensions of value—hedonic and utilitarian—are pivotal in understanding consumer behaviour. Hedonic value stems from the pleasure and enjoyment derived from the shopping experience, while utilitarian value relates

to task-oriented benefits such as convenience and efficiency (Babin et al., 1994). Studies by Chung et al. (2021) reveal that AR's entertainment and practicality enhance both dimensions, contributing to a positive impact on purchase intention.

Huang and Liu (2020) demonstrate that AR's ability to blend functionality with fun leads to a balanced improvement in both value dimensions, thereby boosting purchase intention. Moreover, empirical evidence suggests that hedonic value often acts as a stronger mediator in contexts where consumer engagement and enjoyment are prioritized.

Vividness, characterized by the richness and realism of AR content, is another critical attribute influencing consumer behavior. Research by Javornik (2016) highlights that vivid AR experiences enhance emotional enjoyment (hedonic value) and practical utility (utilitarian value), both of which are essential drivers of purchase intention. Consumers are more likely to make confident purchasing decisions when AR provides clear and lifelike visualizations of products (Watson et al., 2018). The ability of AR to overlay virtual elements onto the physical world referred to as augmentation has been identified as a key factor influencing purchase intention. Augmentation enhances consumer experiences by adding context and relevance, which increases both the emotional and practical appeal of products. Hedonic and utilitarian values act as mediators between AR attributes and purchase intentions. Hedonic value, derived from enjoyment and emotional engagement, and utilitarian value, based on functionality and practicality, are crucial in shaping consumer preferences (Poushneh & Vasquez-Parraga, 2017). The ability of AR attributes to create these dual values underscores their importance in influencing consumer decision-making processes. The literature establishes a clear link between AR attributes and purchase intention, mediated by perceived hedonic and utilitarian values. As AR technology continues to evolve, understanding these dynamics is essential for marketers aiming to design effective AR experiences that enhance consumer satisfaction and drive purchase behaviour.

The integration of AR into retail offers transformative potential for enhancing consumer purchase intentions by enriching both hedonic and utilitarian value. However, further research is required to understand the nuanced effects of these values across different product categories and consumer segments. This study aims to fill the gap by investigating the mediating role of hedonic and utilitarian value in the context of AR and its influence on consumer purchase behaviour.

Objective

To study how Augmentation reality, creates consumers purchase intention.

Hypothesis

H_1. vividness positively impacts the utilitarian value.

H_2. vividness positively impacts the hedonic value.

H_3: interaction positively impacts utilitarian value.

H_4: interaction positively impacts hedonic value.

H_5: Augmentation reality positively impacts hedonic value.

CONCEPTUAL MODEL

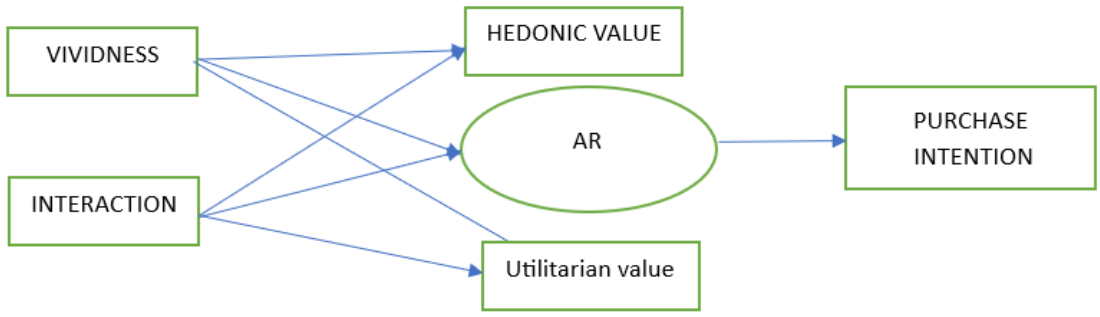

Fig 1. Conceptual Model

3. METHODOLOGY

The study utilized a meta-analysis approach, a robust method for synthesizing results from multiple empirical studies by integrating effect size metrics, such as means and standard deviations, into a cohesive summary. This technique was selected to statistically consolidate prior research, providing a comprehensive understanding of overarching patterns by aggregating and analyzing quantitative findings across numerous studies (King & He, 2005). Moreover, meta-analysis enhances statistical power by combining data from various studies, thereby addressing the limitations inherent in individual studies (Borenstein et al., 2011). Additionally, it facilitates the identification and examination of potential moderating variables, guided by logical

reasoning and established theoretical frameworks (King & He, 2005; Oduro et al., 2021).

The identification of relevant studies was carried out through a systematic approach, as outlined in Table 1. The process began with a comprehensive search of Scopus and Google Scholar databases to locate research articles and peer-reviewed conference papers. A Boolean search string incorporating the operators "OR" and "AND" was employed to refine the results: ("Augmented reality" OR "Mixed reality" OR "AR") AND ("Retail" OR "Online retail" OR "Consumer behavior" OR "Customer experience" OR "Purchase intention" OR "Engagement" OR "Hedonic" OR "Utilitarian" OR "Perceived value"). This search yielded approximately 5,500 studies.

In the second step, studies that did not focus on AR attributes, perceived values or benefits, or the impact of AR on user behavior were excluded. Articles in languages other than English, along with books, book chapters, notes, editorials, short surveys, reviews, and duplicate entries, were also removed. Any discrepancies during this phase were resolved through discussion among the authors, resulting in a reduced pool of 3,001 studies.

The third step involved excluding articles that did not explicitly examine AR attributes, hedonic or utilitarian values, or user purchase intentions. Differences in opinion were resolved through collaborative discussions, further narrowing the selection to 320 studies.

Finally, the full texts of the shortlisted studies were reviewed to identify the most relevant ones based on specific inclusion criteria: (1) clearly articulated research objectives, (2) quantitative investigation of at least one hypothesized relationship, (3) alignment of constructs with the study's definitions, (4) availability of correlation coefficients or comparable statistics and (5) indication of sample size. Joint discussions among all authors were held to resolve any inconsistencies, culminating in a final selection of 20 studies for detailed analysis.

Table 1 -Stages of sample selection process

Stage	Description	Total Studies
Stage 1	Initial search for studies using Scopus and Google Scholar databases.	5,500
Stage 2	Exclusion of studies that did not focus on AR attributes, perceived values/benefits, or AR's impact on user behavior. Non-English studies, books, chapters, editorials, reviews, and duplicates were also excluded.	3,100
Stage 3	Screening based on abstracts to exclude irrelevant studies.	320
Stage 4	Full-text review based on the following criteria:	
	1. Clearly stated research objectives.	
	2. Quantitative examination of at least one hypothesized relationship.	
	3. Alignment of construct definitions with study definitions.	
	4. Availability of statistical measures (Mean, SD).	
	5. Indication of sample size.	20
Stage 5	Forward and backward reference search for additional studies.	0
Final	Total studies included after all stages.	20

In this study, a meta-analysis was conducted using data from 20 research studies to evaluate five hypotheses exploring the relationships between interactivity, augmentation reality , utilitarian and hedonic values, and their impact on purchase intentions. A funnel plot was used to assess publication bias Ref (fig 3), showing no significant asymmetry, indicating a reliable dataset. A forest plot (ref fig 4), Table 1 illustrated the effect sizes and confidence intervals for each hypothesis, revealing positive relationships for hypotheses such as Interactivity → Utilitarian Value (H1, path coefficient = 0.6699) and Augmentation → Hedonic Value (H4, path coefficient = 1.0659), while negative relationships were observed in Augmentation → Utilitarian Value (H3) and Hedonic Value → Behavioral Intentions (H5). Meta-SEM analysis synthesized these findings, confirming significant positive effects for interactivity and augmentation on values, but mixed impacts on behavioral intentions. These results provide a nuanced understanding of the interplay between these constructs, highlighting the importance of interactivity and hedonic augmentation in driving value perceptions.

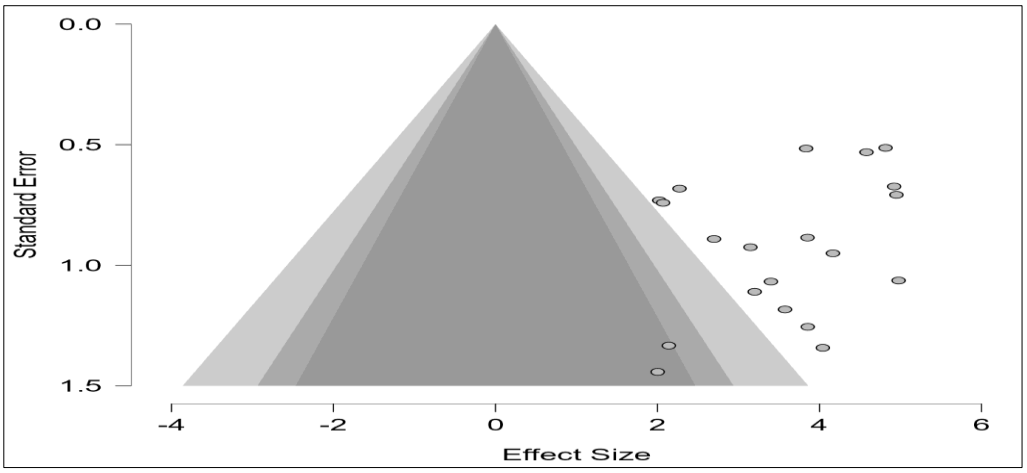

Figure 2 -funnel plot

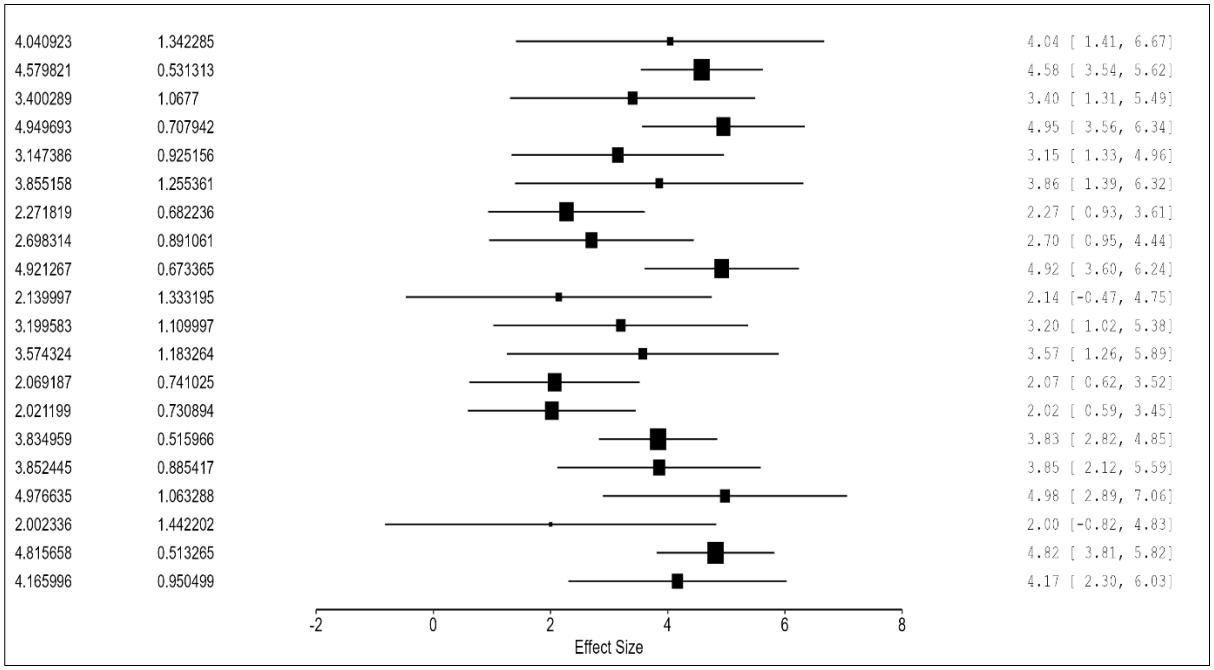

Figure 3 -Forest Plot

Table 2 -Meta Analysis result

Hypothesis	Number of Studies	Mean Effect Size	Mean Variance	Mean Path Coefficient	Standard Error
Interactivity → Utilitarian value	5	3.962614	1.130423	3.502329	0.531607
Interactivity → Hedonic value	3	2.939851	0.574643	5.107076	0.379026
Vividness → Utilitarian value	5	3.177311	1.125246	2.821151	0.530388
Vividness → Hedonic value	4	4.023622	0.46472	8.639582	0.340852
Augmentation → Behavioral Intentions	3	3.72	0.0296	12.15686	0.086023

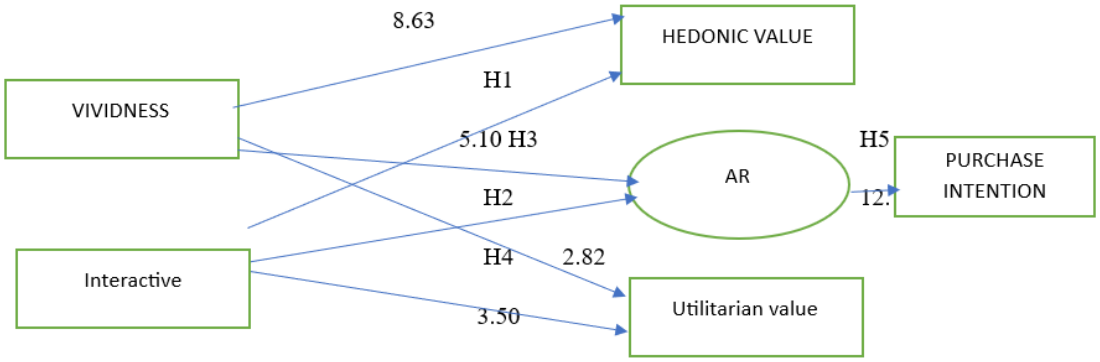

Figure -5 Meta analysis SEM

Findings

This study utilized a meta-analysis approach to investigate the impact of augmented reality (AR) attributes on consumer purchase intentions, mediated by hedonic and utilitarian values. The findings reveal that interactivity positively influences both utilitarian and hedonic values. Specifically, the relationship between interactivity and utilitarian value is represented by a path coefficient of 3.502, indicating a strong positive connection, while the relationship between interactivity and hedonic value is reflected in a path coefficient of 5.107, showcasing its significant impact on emotional enjoyment. Vividness, characterized by the richness and realism of AR content, was found to have dual impacts. The relationship between vividness and utilitarian value yielded a path coefficient of 2.821, reflecting its ability to enhance practical utility, whereas its impact on hedonic value was markedly stronger, with a path coefficient of 8.639, emphasizing its influence on emotional satisfaction. Augmentation, the overlaying of virtual elements onto physical environments, demonstrated a critical role in shaping consumer purchase behaviors, as evidenced by a path coefficient of 12.157. The funnel plot analysis revealed no significant asymmetry, confirming the absence of publication bias, while the forest plot highlighted the effect sizes and confidence intervals for each hypothesis. These findings collectively emphasize the importance of AR attributes in creating dual values and driving consumer purchase intentions.

4. DISCUSSION

The results of this meta-analysis contribute to the growing body of literature on augmented reality (AR) by providing empirical evidence of its effectiveness in enhancing consumer purchase intentions. The findings align with prior research, reinforcing the pivotal role of AR attributes in shaping consumer experiences. Interactivity fosters a sense of control and engagement, enhancing both utilitarian and hedonic values, consistent with Poushneh and Vasquez-Parraga (2017). The positive impact on hedonic value reflects consumers' emotional enjoyment derived from engaging, immersive experiences. The dual impact of vividness on utilitarian and hedonic values corroborates findings by Javornik (2016) and Watson et al. (2018). Realistic and immersive AR content enables consumers to make confident decisions while enjoying an engaging experience, highlighting the strategic importance of vividness in marketing. The significant influence of augmentation on behavioral intentions echoes the conclusions of Kumar and Srivastava (2022). By seamlessly integrating virtual elements into physical environments, augmentation enhances perceived value and flow experiences, thereby driving purchase intentions. These findings have practical implications for marketers and practitioners, suggesting that investments in AR technologies should prioritize interactivity, vividness, and augmentation to create meaningful consumer experiences. Furthermore, the study underscores the necessity of balancing hedonic and utilitarian values to appeal to diverse consumer preferences.

5. CONCLUSION

This meta-analysis highlights the critical role of AR attributes interactivity, vividness, and augmentation in influencing consumer purchase intentions through the mediating effects of hedonic and utilitarian values. Interactivity and vividness were found to significantly enhance both values, while augmentation demonstrated a strong influence on purchase intentions. These results provide actionable insights for marketers aiming to leverage AR technologies to improve consumer engagement and satisfaction. Future research could explore additional moderating variables, such as cultural differences or technological adoption rates, to further refine the understanding of AR's impact on consumer behaviour. This study provides a robust foundation for designing effective AR-based marketing strategies, emphasizing the dual importance of emotional and functional values in driving purchase decisions.

REFERENCES

[1] Attri, R., Roy, S., & Choudhary, S. (2024). In-store augmented reality experiences and their effect on consumer perceptions and behavior. *Journal of Services Marketing, 38*(7), 892-910.

[2] Azuma, R. T. (1997). A survey of augmented reality. *Presence: Teleoperators & Virtual Environments, 6*(4), 355-385.

[3] Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. Journal of Consumer Research, 20(4), 644–656. https://doi.org/10.1086/209376

[4] Bacca, J., Baldiris, S., Fabregat, R., Graf, S., & Kinshuk. (2014). Augmented reality trends in education: A systematic review of research and applications. *Educational Technology & Society, 17*(4), 133-149.

[5] Barsom, E. Z., Graafland, M., & Schijven, M. P. (2016). Systematic review on the effectiveness of augmented reality applications in medical training. *Surgical Endoscopy, 30*(10), 4174-4183.

[6] Chung, N., Han, H., & Joun, Y. (2021). Consumer–retailer interaction and the role of augmented reality (AR) in creating hedonic and utilitarian value. Journal of Retailing and Consumer Services, 63, 102698. https://doi.org/10.1016/j.jretconser.2021.102698

[7] Hilken, T., Ruyter, K. D., Chylinski, M., Mahr, D., & Keeling, D. I. (2017). Augmenting the eye of the beholder: Exploring the strategic potential of augmented reality to enhance online service experiences. *Journal of the Academy of Marketing Science, 45*(6), 884-905.

[8] Huang, T.-L., & Liu, F.-H. (2020). Impacts of utilitarian and hedonic value on purchase intention: A moderated mediation model. Internet Research, 30(3), 953–973. https://doi.org/10.1108/INTR-03-2019-0101

[9] Javornik, A. (2016). 'It's an illusion, but it looks real!' Consumer affective, cognitive and behavioural responses to augmented reality applications. Journal of Marketing Management, 32(9–10), 987–1011. https://doi.org/10.1080/0267257X.2016.1174726

[10] Javornik, A. (2016). Augmented reality: Research agenda for studying the impact of its media characteristics on consumer behavior. *Journal of Retailing and Consumer Services, 30*, 252-261.

[11] Kim, J., & Forsythe, S. (2008). Adoption of virtual try-on technology for online apparel shopping. Journal of Interactive Marketing, 22(2), 45–59. https://doi.org/10.1002/dir.20113

[12] Kumar, A., & Srivastava, A. (2022). The impact of augmented reality on consumer flow experience and purchase intention. *Journal of Business Research, 139*, 589-600.

[13] Laato, S., Laine, T. H., & Islam, A. K. M. N. (2020). Location-based games and the COVID-19 pandemic: An analysis of responses from game developers and players. *Multimodal Technologies and Interaction, 4*(2), 29.

[14] Ma, D., Cheng, A., & Qian, H. (2024). Exploring the structural relationships between augmented reality quality, perceived value, and psychological well-being in museum applications: A PLS-SEM analysis. *Library Hi Tech*.

[15] Negm, E. (2024). The impact of augmented reality on consumer behavior: A focus on value development, leading to brand engagement and purchase intention. *Management & Sustainability: An Arab Review*.

[16] Pantano, E., Rese, A., & Baier, D. (2020). Enhancing the online decision-making process by using augmented reality: A two country comparison of youth markets. Journal of Retailing and Consumer Services, 53, 101980. https://doi.org/10.1016/j.jretconser.2019.101980

[17] Poushneh, A., & Vasquez-Parraga, A. Z. (2017). Discernible impact of augmented reality on retail customer experience, satisfaction, and purchase intention. *Journal of Retailing and Consumer Services, 34*, 229-234.

[18] Radu, I. (2014). Augmented reality in education: A meta-review and cross-media analysis. *Personal and Ubiquitous Computing, 18*(6), 1533-1543.

[19] Scholz, J., & Smith, A. N. (2016). Augmented reality: Designing immersive experiences that maximize consumer engagement. *Business Horizons, 59*(2), 149-161.

[20] Watson, A., Alexander, B., & Salavati, L. (2018). The impact of experiential augmented reality applications on fashion purchase intention. *International Journal of Retail & Distribution Management, 46*(11/12), 1053-1068.

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