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Effect of Augmented Reality Marketing Strategies on Consumer Brand Performance of Hotels in South-South Nigeria

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Abstract

The study examined the effect of augmented reality marketing strategies on consumer brand performance, using a case study of hotels in South-South Nigeria. A cross-sectional survey design was employed, with data collected from customers of hotels in Edo and Delta States, targeting a population of 312 regular guests. Using Taro Yamane's formula, a sample size of 175 was determined, and purposive sampling was employed to select respondents with AR marketing experience. A structured questionnaire was used as the research instrument. Reliability was confirmed using the test-retest reliability method. Data analysis utilized descriptive statistics and multiple regression analysis. The findings revealed that interactive product demonstration (ß = 0.330, P < 0.05), virtual product placement (ß = 0.406, P < 0.05), and telepresence (ß = 0.166, P < 0.05) positively affect customer brand performance. The study concludes that augmented reality marketing strategies significantly enhance consumer brand performance in the hospitality industry. These strategies create immersive and engaging experiences that allow customers to interact with hotel offerings in a more personalized and meaningful way. The study recommended that hotels should integrate telepresence features, such as virtual tours and live customer interactions, to create a sense of connection and accessibility, further strengthening customer engagement and satisfaction.

Keywords: Augmented Reality Marketing, Consumer Brand Performance, Interactive Product Demonstration, Telepresence, Virtual Product Placement

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INTRODUCTION

The growing utilization of technology in marketing has resulted in novel techniques that improve consumer engagement and brand efficacy. Among these, augmented reality (AR) has emerged as a potent instrument, revolutionizing the manner in which businesses engage with consumers. In the hospitality sector, especially hotels, augmented reality marketing provides a distinctive opportunity to captivate prospective clients through immersive and interactive experiences. Augmented reality enables clients to virtually examine hotel amenities or envision accommodations and services prior to reservation, offering a persuasive rationale for selecting a specific hotel, which ultimately affects their brand perception and purchasing behavior. These technologies provide a first-person perspective of an integrated or simulated environment (Soon et al., 2023), aligning with visitor expectations (Zarantonello & Schmitt, 2023).

Securing hotel accommodations is frequently a pivotal travel decision owing to numerous hazards and uncertainties (Casalo et al., 2015). The information search phase is essential for the satisfaction of prospective tourists and their propensity for repeat visits (Kalantari et al., 2023). Guests, as decision-makers, endeavor to evaluate all pertinent information to make the most suitable decisions. Augmented reality has revolutionized hotel operations, striving to deliver enhanced experiences and promote customer loyalty. Augmented reality allows guests to virtually engage with hotel services prior to their actual experience (Pillai et al., 2021), functioning as marketing instruments (Loureiro et al., 2020). Thus, prospective guests can obtain the requisite information to facilitate their hotel selection procedures (Israel et al., 2019).

As marketplaces get more competitive, the incorporation of augmented reality offers a viable opportunity for organizations to distinguish themselves and explore several unexploited potentials (Lavoye et al., 2023). Augmented reality fundamentally merges virtual components with real-world settings, transforming brand-consumer interactions and providing immersive brand experiences (Amer et al., 2023). Augmented reality superimposes digital content onto actual environments, merging the distinctions between virtual and tangible domains (Nah & Siau, 2019). This seamless connectivity allows marketers to craft interactive experiences that connect with customers on a profound emotional level (Kazmi et al., 2021). Utilizing AR technologies, marketers may connect online and offline channels, engaging consumers across several touchpoints (Koumpouros, 2024). AR enables brands to engage consumers through interactive product demos, immersive brand activations, and gamified experiences in unprecedented ways (Meng & Xiao, 2020). This increased engagement improves brand exposure and recall, cultivates stronger connections and emotional bonds, and promotes more brand loyalty and advocacy (Ahn et al., 2014).

Augmented reality (AR) is a nascent technology that integrates computer-generated content with the physical environment (Soderstrom et al., 2024). In marketing, it is characterized as an innovative, strategic, and potentially disruptive sub-discipline (Rauschnabel et al., 2022). The popularity of AR marketing has risen in recent years, enabling organizations to leverage its advantages for innovative and engaging marketing strategies (Yim et al., 2017). In light of the expansion of augmented reality (AR) in e-commerce, academics have shown considerable interest in exploring novel potential and applications of AR for marketing objectives (Jiang et al., 2021; Poushneh & Vasquez-Parraga, 2017). Augmented Reality (AR) possesses the distinctive characteristic of local presence, as articulated by Rauschnabel et al. (2022), which refers to the extent to which a user perceives AR content as being physically present.

Research indicates that certain consumers experience deprivation due to their inability to physically interact with objects of interest in an augmented reality environment (Gatter et al., 2022). Despite the limits of AR apps, much data indicates that they enhance users' decision-making capabilities (Sun et al., 2022) and simultaneously promote a more joyful and participatory shopping experience. Although previous augmented reality literature has examined the mechanisms and impacts of AR applications in shopping (Dwivedi et al., 2023), research remains scarce on how the innovative features of AR affect the consumer shopping experience, especially in relation to usage habituation.

This study aims to investigate the influence of augmented reality marketing methods on customer brand performance in hotels located in South-South Nigeria. It concentrated on three essential elements of AR marketing: interactive product presentations, virtual product placements, and telepresence. These features have demonstrated the ability to augment customer engagement, foster deeper emotional ties with the brand, and deliver immersive experiences that impact consumer decision-making. This study seeks to provide significant insights for hotel marketers by examining the impact of AR techniques on consumer perceptions and behaviors, hence enhancing brand performance and customer happiness in the competitive hospitality sector.

Statement of the Problem

In recent years, Nigeria's hospitality business has experienced a notable transformation in consumer behavior, propelled by a growing dependence on digital technologies. Although conventional marketing techniques like print advertisements and word-of-mouth remain vital, the swift progression of augmented reality (AR) technology has created novel opportunities for hotels to captivate prospective clients through inventive methods. Despite the increasing interest in augmented reality marketing, there is a deficiency of thorough research examining the specific effects of AR tactics on consumer brand performance within the hotel business in this region. In the face of fierce competition, it is essential for hotels to comprehend the efficacy of augmented reality marketing strategies in shaping consumer perceptions, engagement, and loyalty to maintain a competitive edge.

The issue stems from the inadequate comprehension of how particular augmented reality marketing components, including interactive product demonstrations, virtual product placements, and telepresence, influence customer brand performance inside South-South Nigerian hotels. Although these AR characteristics have been effectively incorporated into marketing plans in several industries, their implementation and influence on the hotel business in this region remain insufficiently examined. Hotels may be reluctant to completely adopt these technologies without a comprehensive grasp of their potential advantages. Therefore, there is an urgent requirement for empirical research to investigate the impact of AR marketing on customer brand perceptions, decision-making, and loyalty within the hotel sector, assisting businesses in refining their marketing strategies and improving brand performance.

Objectives of the Study

The general objective of the study is to examine the effect of augmented reality marketing strategy on consumer brand performance: a case study of hotels in South-South Nigeria. The specific objectives are to:

i. ascertain the effect of interactive product demonstrations on consumer brand performance of hotels in South-South Nigeria.

ii. determine the effect of virtual product placements on consumer brand performance of hotels in South-South Nigeria.

iii. explore the effect of telepresence on consumer brand performance of hotels in South-South Nigeria.

REVIEW OF RELATED LITERATURE

Augmented Reality Marketing Strategies

In the current dynamic marketing environment, companies pursue creative tactics to attract consumer attention, enhance engagement, and develop brand loyalty (Tushar et al., 2023). Augmented reality (AR) serves as a revolutionary instrument in this endeavor, providing exceptional chances to reimagine customer experiences and enhance brand engagement to extraordinary heights (Uribe et al., 2022). Augmented Reality (AR) is broadly defined as a collection of technologies that facilitate the integration of the physical world with digital entities (Barhorst et al., 2021). To do this, digitally generated objects are overlayed onto real-world settings, mimicking their physical existence. These components of augmented reality (AR) markedly contrast with virtual reality (VR), which is characterized by the exclusive telepresence of the user in a virtual environment (Rauschnabel et al., 2022).

In the realm of marketing and e-commerce, augmented reality has advanced considerably and transformed the presentation and promotion of products to consumers (Ooi & Yazdanifard, 2015). A study by Alves and Luís Reis (2020) indicates that augmented reality has been significantly advantageous, especially in the retail sector and for the selling of tangible goods. The primary purpose for employing AR is to enable consumers to interact with a brand's products within their own environment and to foster connections with the company. Consequently, augmented reality has emerged as a prevalent marketing instrument for customer engagement in recent years (Ooi & Yazdanifard, 2015). Augmented reality experiential marketing denotes the application of AR in marketing endeavors to enrich consumer interactions with a brand or a collection of products. Numerous studies have underscored the advantages of employing augmented reality for marketing objectives. From a marketer's viewpoint, the novelty of the technology can enhance brand awareness and engagement by encouraging users to interact with these applications due to their innovative nature (Hopp & Gangadharbatla, 2016).

Augmented reality is engaging and possesses a "wow factor" that captivates consumer attention (Feng & Mueller, 2019). Research on consumer experiences with augmented reality indicates that it promotes repeat purchases, favorable word-of-mouth, and heightened expenditure (Kowalczuk et al., 2021; Ooi & Yazdanifard, 2015). Arghashi (2022) discovered that augmented reality features significantly influence consumer purchasing intentions via hedonic shopping motivation. Nonetheless, information overload may lead to diversions that ultimately diminish buying intention. Consequently, it is essential to equilibrate the hedonic elements of such applications to prevent information overload. A recent study by Barta et al. (2023) demonstrated that augmented reality diminishes dissonance by lowering the apparent similarity of alternatives and alleviating confusion caused by excessive choices. Consequently, augmented reality mitigates cognitive dissonance and amplifies consumers' utilitarian functionality.

Moreover, augmented reality provided a memorable experience for its users (Yuan & Wu, 2008). A primary impetus for utilizing AR in marketing is its uniqueness, incorporating engaging and interactive components that enhance consumers' emotional experiences. A notable instance of augmented reality utilized for advertising is a Swedish pharmacy that initiated a campaign against smoking in 2016. The company employed a billboard equipped with a smoke detector that emitted coughing sounds upon detecting an individual passing by smoking a cigarette (Davenport et al., 2017). An intriguing case that gained widespread attention was Persi's 2014 commercial in London. The company erected a simulated glass wall at a bus stop, displaying engaging visuals for commuters while they wait for the bus (Kastrenakes, 2014). These use cases were established based on the ideas of enjoyment, engagement, and novelty to forge a lasting connection with the marketed businesses (Kim et al., 2021). Nonetheless, augmented reality methodologies have been more explicitly associated with commercial activity.

Recent research indicates that novelty encountered in AR applications can stimulate online impulsive behavior by offering hedonic value to users (Kumar & Srivastava, 2022). Although there are numerous advantages to employing AR for product visualizations, a segment of consumers does not prefer utilizing AR for buying activities. This demographic of consumers prefers in-person buying, allowing them to engage tactilely with the product and assess its quality and physical attributes (Feng & Mueller, 2019). Therefore, it is essential to comprehend the methods and circumstances under which AR applications enhance purchasing intentions. Previous empirical research has demonstrated that utilizing augmented reality for online shopping increases user engagement and enjoyment (Kowalczuk et al., 2021; Raska & Richter, 2017). Furthermore, research indicates that consumers appreciate augmented reality in shopping due to its innovative nature, which markedly transforms the buying experience (Yim et al., 2017).

Interactive Product Demonstrations

AR techniques enable consumers to interact directly with digital representations of hotel products or services, including virtual tours and interactive displays of amenities, boosting their comprehension and engagement with the offers. Augmented reality has markedly improved customer experience by providing immersive and interactive brand engagements (Li et al., 2023; Zhu & Chao, 2023). Augmented Reality (AR) superimposes digital content onto physical locations, thereby crafting personalized experiences aligned with individual preferences and interests (Lee & Kim, 2023). These experiences are significant and linger with customers well after the first interaction (Lavoye et al., 2021).

Furthermore, augmented reality enhances brand engagement by promoting active participation and exploration (Kang et al., 2023). Users are attracted to augmented reality experiences because of their participatory characteristics, resulting in enhanced brand memory and favorable associations (Chen & Lin, 2022). The financial ramifications of these technologies must not be disregarded. Yoon et al. (2021) established that visitors' perceived value of virtual reality, influenced by performance anticipation, social dynamics, and a combination of utilitarian and hedonic motives, directly determines their intention to utilize virtual reality. Significantly, guests exhibit a propensity to invest additional funds in hotels that incorporate VR material throughout the reservation process. McLean and Barhorst (2022) highlighted the influence of virtual reality on travelers' attitudes and intentions throughout the booking process. Their research substantiated the idea that virtual reality enhances travelers' understanding of

hotel amenities and influences their intents to attend, chiefly by providing genuine experiences and creating vivid mental imagery prior to their visit.

Virtual Product Placements

Virtual Product Placement (VPP) denotes the subtle, digital incorporation of branded products into visual media, frequently utilized as a covert marketing tactic. Virtual Product Placement (VPP) is an advertising method that digitally integrates branded items into scenes of films or television programs (Bhargavi et al., 2023). Advertising solutions employing VPP are highly attractive due to their extensive customisability, efficacy across varied customer demographics, and measurable efficiency. Prior studies highlight the influence of product placement in domains such as virtual reality (Wang & Chen, 2019) and video games. Recent breakthroughs in generative AI technology have greatly increased the potential for product placement through the use of diffusion models.

Augmented reality has become a potent instrument for enterprises aiming to engage consumers creatively and cultivate stronger affiliations with their brands (Kumar, 2022). Virtual interaction with items and the exploration of customization choices engenders a more profound engagement than conventional marketing techniques (Liu & Li, 2022). Moreover, the incorporation of augmented reality in marketing not only improves customer experience but also yields measurable financial results (Du et al., 2022). Augmented reality product visualization systems have demonstrated the ability to enhance conversion rates and diminish product return rates by offering consumers more precise representations of products prior to purchase (Rejeb et al., 2023). Moreover, AR-driven gamification experiences encourage consumer engagement and foster brand loyalty through rewards and incentives (Kumar, 2022). Furthermore, Luangrath et al. (2022) reveal that advancements in digital media are influencing the transition from physical to virtual purchasing and consumption experiences. This therefore results in a growing demand for the "visualization" of items that will continue to evolve in the near future (Pavlič et al., 2021).

Telepresence

Telepresence denotes the degree to which an individual perceives themselves as present in a mediated environment, as opposed to their immediate physical surroundings. Telepresence in a digital context is characterized as digital experiences that appear more authentic than offline experiences. Recently, telepresence has been utilized to denote an entranced state attained through the application of novel technology (Papagiannidis et al., 2017). Prior academics have elucidated the impacts of telepresence across many circumstances. Telepresence created by a virtual model feature utilized for product display enhances shopping enjoyment, purchase intention, and patronage intention in online purchasing. The integration of VR technology in mobile shopping enhances telepresence, hence augmenting fun and behavioral intentions among consumers. This study examines methods to enhance telepresence through augmented reality to foster more immersive surroundings, hence augmenting behavioral intents.

Scholars have highlighted elements that facilitate the development of telepresence from the perspective of retail technology (Hilty et al., 2020; Kim & Ko, 2019). Media richness and engagement are essential for enhancing telepresence. Media richness, commonly termed "vividness," denotes the extent to which technology generates sensory information. Media richness theory (Daft & Lengel, 1986) posits that media can vary from lean to rich. Consumers favor utilizing rich media to mitigate product uncertainty and enhance communication. Integrating augmented reality with media richness theory, augmented reality technology can

offer an immersive sensory experience of the product. When many sensory channels among the five senses are engaged and the quality within each channel is substantial, consumers recognize media richness (Klein, 2003). Television possesses greater media richness than radio, as it activates a greater number of sensory channels (visual and auditory) compared to radio, which engages primarily the auditory channel. Moreover, televisions that deliver high-resolution images exhibit greater media richness compared to those with standard-resolution images (Kim & Ko, 2019).

In digital retail, media richness typically signifies the manner in which product information is conveyed to consumers. High-quality product images and augmented reality can enhance consumers' perception of media richness, as vibrant product displays offer additional informative cues and engage many sensory modalities (Jiang & Benbasat, 2007). Israel et al. (2019) highlighted the significance of telepresence in virtual reality, asserting that it enhances perceived enjoyment and utility for prospective hotel patrons, hence increasing their likelihood of making reservations. This discovery suggests that virtual reality may not only improve customer experience but also increase hotel bookings and, consequently, profitability. Lupinek et al. (2021) also assert that telepresence and interactivity substantially affect consumers' perceptions of the brand featured in in-game advertisements. Specifically, heightened interactivity amplifies the sensation of "presence."

Consumer Brand Performance

Consumer brand performance refers to how consumers perceive and evaluate a hotel's brand, which includes factors such as brand awareness, recognition, and associations. It is an indicator of how well the hotel's brand resonates with consumers, influencing their attitudes toward the brand and shaping their purchasing behavior. High consumer brand performance often translates to a strong, favorable image of the hotel in the minds of potential guests. Furthermore, consumer brand performance also includes brand loyalty, customer satisfaction, and overall brand reputation. These elements reflect the long-term impact of a hotel's marketing strategies on customer retention, repeat business, and positive word-of-mouth. A hotel with strong brand performance is likely to have a loyal customer base, attract new guests through positive reviews, and experience sustained business success.

Theoretical Framework

Stimulus-Organism-Response Model

The Stimulus-Organism-Response (SOR) paradigm posits a sequential relationship between environmental stimuli, an individual's internal responses, and subsequent behavior (Sheng & Joginapelly, 2012). The SOR model has been employed in marketing and e-commerce to analyze how stimuli from emerging digital technologies influence user responses and subsequently affect behavioral outcomes (Watson et al., 2018). Previous research has examined AR-based stimuli and their impact on user behavior utilizing the SOR model (Kowalczuk et al., 2021). Previous research has classified augmented reality content into entertainment and informational categories, which serve as triggers for users (Xu et al. 2020).

Two essential elements have been proposed to define the entertainment side of augmented reality: vividness and augmentation (Jiang & Benbasat, 2004, 2007; Kumar, 2021). Conversely, literature has recognized product informativeness and personalized suggestions as essential attributes of information content (Javornik, 2016b). The second component of the SOR model (Organism) seeks to ascertain the impact of the proposed stimuli on users' internal

responses. Previous research has indicated that internal responses can be categorized into affective and cognitive responses. Affective reactions pertain to an individual's emotional states, encompassing elements such as enjoyment and absorption (Kowalczuk et al., 2021), whereas cognitive responses involve information processing activities and cognitive states, including usefulness and choice confidence (Hann et al., 2007).

A foundational study by Kowalczuk et al. (2021), upon which this research is predicated, compared the IKEA AR mobile application with the corporate website. The findings indicated that the stimuli provided by the AR application exerted a greater impact on emotive reactions whereas the website elicited more cognitive responses. Chiu, Wang, Fang, and Huang (2014) showed in a separate study that addressing both emotive and cognitive reactions is crucial for eliciting customers' purchase intentions. Affective responses are crucial components of buying decisions, as demonstrated in the study by Sohn and Kwon (2020), which revealed that facilitating enjoyment favorably influences consumer responses. A study conducted by Peng and Kim (2014) indicates that addressing both emotive and cognitive reactions is crucial for stimulating online purchases. The literature presents significant data on the impact of augmented reality on emotive and cognitive responses. According to Steuer (1992), vividness is defined as "the ability of a technology to produce a sensorially rich mediated environment."

In e-commerce, vividness is frequently linked to the quality and realism of product displays (Yim et al., 2017). Numerous research studies, including those by Yim et al. (2017) and McLean and Wilson (2019), demonstrate that vividness facilitates consumers in forming mental representations of the practical use of the products they examine. McLean and Wilson (2019) further elucidate that customers can form precise mental representations after encountering a product in augmented reality. This processing enhances customers' decision-making by increasing their trust in choices (Flavian et al., 2016; McLean & Wilson, 2019). Moreover, Javornik (2016b) contends that augmentation, defined as a technology's capacity to enhance human capacities, including perceptions, actions, and cognition, significantly influences the elicitation of affective responses. Kowalczuk et al. (2021) assert in their research that the extent of information regarding a product favorably affects views of media utility.

Consequently, AR applications can be linked to practical functions during product exploration. Moreover, features like product recommendations found in AR applications have been associated with improved purchasing decisions (Huynh et al., 2018; Mikalef et al., 2017). These findings underscore the significance of information content in AR apps, as it profoundly influences user perceptions of objects and their subsequent purchasing decisions. The concluding element of the SOR model is behavioral responses, which are influenced by the consumer's internal reactions. In marketing and e-commerce, purchase intention has been a focal point for scholars and practitioners.

The research conducted by Kowalczuk et al. (2021) demonstrated that the user's confidence in their choice significantly influences purchase intention. Watson et al. (2018) demonstrate that emotive reactions, such as entertainment, influence consumer purchase intentions. Research conducted by Raska and Richter (2017) indicates that enhancing consumers' purchase intention is a consequence of augmenting product knowledge and engagement. Yim et al. (2017) demonstrated that some augmented reality traits favorably affected perceptions of utility, enjoyment, novelty, and immersion, resulting in favorable purchase intentions. Nonetheless, there is a paucity of comprehension regarding the interaction between affective and cognitive responses and their collective impact on shaping consumers' purchasing intentions while utilizing AR applications. Moreover, there is insufficient comprehension of how these

mechanisms evolve with repeated utilization of AR applications and their impact on consumer purchase intentions.

Cue-Utilization and Habituation-Tedium Theories

To address variances in the impact of AR apps on consumers through regular use, we integrate cue-utilization theory with habituation-tedium theory. The cue-utilization theory (Easterbrook, 1959) seeks to elucidate how individuals react to unfamiliar stimuli in contrast to familiar ones. Previous research has expanded upon this hypothesis to investigate if consumer behavioral responses evolve over time concerning purchasing decisions (Johnson & Wells, 2011). The hypothesis posits that exposure to fresh stimuli alters an individual's cognitive flow, hence increasing their arousal level. Consequently, frequent exposure or habituation to identical stimuli will ultimately diminish the arousal effects (Yim et al., 2017; Easterbrook, 1959). In the realm of digital technology utilization, continual exposure to stimuli will no longer disrupt cognitive processes, hence diminishing their accuracy (Yim et al., 2017).

The habituation tedium theory (Tellis, 1997) offers a contrasting perspective on how repeated exposure to stimuli alters individuals' perceptions over time. The hypothesis posits that exposure to unfamiliar stimuli might initially induce negative consequences, including tension and uncertainty, which diminish over time and with repeated exposure (Tellis, 1997). As individuals acclimatize to the new stimuli, feelings of anxiety and stress diminish, leading to a sensation of apathy. However, while the sensation of monotony takes longer to manifest, individuals first experience a sense of habituation (Temme, 1984). This theory elucidates how prolonged exposure to stimuli affects individuals' perceptions.

Table 1: Empirical Review

S/N	Author and Date	Title	Methodology	Findings
1	Soderstrom, Mikalef, Landmark, & Gupta (2024)	Augmented Reality (AR) Marketing and Consumer Responses: A Study of Cue Utilization and Habituation in the USA.	Study with users of an AR marketing app	First-time users value usefulness for purchase intention; habitual users value enjoyment. Vividness affects first-time users' affective responses more. Augmentation impacts habitual users' cognitive and affective responses more.
2	Solihin, Nur, & Sutomo (2024)	The Implementation of VR and AR in Marketing and Service Development in the Hospitality Sector in Indonesia.	Quantitative approach using a cross-sectional survey of 200 hotel guests	VR virtual tours increase booking confidence (72%); AR enhances real-time experiences (64%). VR and AR improve customer satisfaction and loyalty. Challenges include cost and infrastructure.
3	Asakdiyah, Makarim, & Adinugroh	The Effects of Augmented Reality Marketing on Consumer Behavior	Quantitative approach with 100 customers using path	AR and user engagement significantly affect brand experience. AR influences brand experience indirectly

	o (2024)	and Brand Perception in Indonesia	analysis	via innovation perception.
4	Praveen (2024)	The Transformative Impact of AR and VR Technologies on Customer Engagement Strategies in Indonesia	Case studies and industry reports analysis	AR and VR positively affect customer satisfaction, retention, and purchasing behavior. Technical barriers and cost are key challenges.
5	Tunufus et al. (2024)	The Impact of Augmented Reality on Consumer Engagement and Brand Loyalty in Indonesia	Quantitative survey using AR apps	AR increases consumer engagement and brand loyalty by providing interactive and immersive experiences.
6	Zhou et al. (2024)	The Differential Effects of Augmented Reality and Product Presentation Strategies on Brand Recall in China.	Empirical research with two lab experiments	AR enhances brand recall when products are presented together (collocation) but not separately.
7	Ouerghemmi et al. (2023)	The Impact of Virtual Reality (VR) Tour Experience on Tourists' Intention to Visit Tunisia	Mixed methods (qualitative and quantitative) from 434 participants	Telepresence in VR affects tourist intentions to visit, with immersion, realism, and presence being key factors.
8	Choudhary and Sahu (2023)	The Impact of Virtual and Augmented Reality Technologies on Brand Equity and Brand Loyalty in Sports Sponsorship in India	Meta-analysis of 16 studies (5,426 participants)	Positive effect of VR/AR on brand equity (SMD = 0.77) and brand loyalty (SMD = 0.51). Substantial heterogeneity observed (I-squared = 87.6%). No significant differences in effect sizes based on sport type or target audience.
9	Chaudhari et al. (2023)	The Impact of Augmented Reality Advertisements on Gen Z in Pune City, India	Survey using a structured questionnaire (177 responses)	Gen Z students in Sales & Marketing are more aware of AR ads. 66% find AR ads effective and believe they can change the Indian advertising industry. Preferred modes: AR games, interactive videos, and immersive experiences.

10	Yoo (2023)	The Effects of Augmented Reality on Consumer Responses in Mobile Shopping: The Moderating Role of Task Complexity in South Korea	Survey of 279 mobile app users	Media richness and interactivity positively influence telepresence, which in turn affects behavioral intentions. Telepresence has stronger effects on hedonic value for high task complexity and utilitarian value for low task complexity.
11	Zeng et al. (2023)	Virtual and Augmented Reality–Based Brand Experiences and Consumer–Brand Relationships in China	Survey of 518 consumers	Entertainment, aesthetic, educational, and real-escape experiences impact consumer–brand relationships. Perceived brand authenticity moderates the relationship between brand experience types and consumer–brand relationship-building.
12	Kabir and Kang (2023)	The Impact of Augmented Reality through User-Platform Interactions towards Continuance Intention with the Effect of Generation in Australia	Survey of 886 responses	Trust, emotional engagement, and satisfaction influence the continuance intention to use AR platforms. Information sources, such as online reviews, affect subjective norms. Generational differences in continuance intention were observed.
13	Ahmed et al. (2023)	The Relationship between Augmented Reality, Customer Purchase Intention, Brand Relationship, and Customer Experience in Egypt	Survey of 320 respondents	Positive relationship found between AR and customer purchase intention, brand relationship, and customer experience. First study linking these variables in AR marketing.
14	Chakkamba et al. (2023)	Influence of Augmented Reality (AR) on Consumer Behavior and Decision-Making in India	Descriptive research, structured questionnaire, convenience sampling	AR is gaining traction due to AI platforms and influences decision-making
15	Amanah et al. (2023)	Impact of the Experience Economy on AR-based Marketing Apps and Consumer Satisfaction in	Quantitative approach, survey methods, PLS-SEM	Aesthetics positively influence entertainment, learning, and escapism, leading to satisfaction

		Indonesia		
16	Zeng et al. (2022)	VR Tourism Experience and Cultural Dissemination Behavior in China	Moderated mediation model	VR experiential value stimulates cultural dissemination behavior, mediated by pride and moderated by collectivism
17	Saleem et al. (2022)	Effect of AR Advertising on Purchase Intention in Pakistan	Experimental research with AR-based advertisements	AR ads are engaging, informative, and entertaining, significantly influencing purchase intentions
18	Diaa (2022)	Effect of AR on Customer Brand Engagement	Experiment with AR Mobile applications in cosmetics	AR technology attributes positively affect customer brand engagement, mediated by usefulness, ease of use, and enjoyment
19	Alanazi (2022)	Effect of Marketing 5.0 on Marketing Performance in Saudi Arabia.	Questionnaire survey with employees in 25 furniture stores	Contextual and augmented marketing significantly affect marketing performance; predictive marketing does not
20	Brengman et al. (2022)	Customer Engagement in Multi-Sensory VR Advertising in Indonesia	2×3 between-subjects study	Product-scent congruence with sound enhances engagement in VR ads
21	Belal (2021)	Impact of AR Technology on Customer Engagement in Egypt	Descriptive quantitative research	AR positively influences customer engagement, especially among youth
22	Ehab et al. (2020)	Effect of AR Applications on Customer Purchase Intentions in Egypt	Mixed methods combining qualitative and quantitative	High engagement in AR apps positively affects experience and purchase intentions

Gap in Reviewed Literature

The reviewed literature focuses on the application of Augmented Reality (AR) in marketing strategies and its impact on consumer brand performance, particularly within the hospitality sector. Several studies highlight the role of AR in enhancing consumer engagement and decision-making through interactive experiences, such as product demonstrations and virtual placements. For example, Chakkambath et al. (2023) explored how AR influences consumer decision-making in India, demonstrating that AR can enhance engagement and alter consumer perceptions. Similarly, research by Saleem et al. (2022) and Alanazi (2022) underscored the role of AR in improving consumer interaction with products and enhancing brand performance. Additionally, studies like those of Zeng et al. (2022) and Belal (2021) investigated the impact

of AR and VR technologies on customer experiences, emphasizing how telepresence and experiential value can influence consumer behavior. These studies collectively highlight the potential of AR marketing strategies to positively impact consumer brand performance, offering valuable insights for applying AR in the hotel industry in South-South Nigeria.

While existing literature provides valuable insights into the impact of AR on consumer engagement and brand performance, there remains a gap in understanding the specific effects of AR marketing strategies, such as interactive product demonstrations, virtual product placements, and telepresence, within the hotel industry, particularly in South-South Nigeria. Most studies have concentrated on sectors like retail, cosmetics, and tourism, leaving the hospitality industry relatively underexplored in terms of AR applications. Additionally, while the positive effects of AR on consumer decision-making are well-documented, there is limited research on how these strategies influence long-term consumer brand loyalty and overall hotel brand performance. As such, further research is needed to specifically examine the role of AR in shaping consumer perceptions and brand outcomes in the context of hotels in South-South Nigeria, addressing the unique cultural and market dynamics of the region.

METHODOLOGY

Research Design

The research design employed for this study is a cross-sectional survey research design. It is aimed at collecting data at a single point in time from a sample of respondents to examine the relationships between variables (Olannye, 2017). By using this approach, the study seeks to capture a snapshot of consumer perceptions and experiences with AR marketing in the hospitality sector, enabling the identification of trends and patterns that can inform future marketing practices within the industry.

Population of the Study

The study focused on the customers of two hotels located in Benin City, Edo State, and Warri, Delta State. These locations were selected to represent diverse segments of the hospitality market in South-South Nigeria, providing a comprehensive understanding of consumer brand performance in response to augmented reality marketing strategies. The population size for the study was determined using a total estimate of 299 guests in the Protea Hotel Benin City and Warri Wetland Hotel. These guests are regular customers of these hotels on a weekend basis. A total of 312 respondents were targeted, with 159 customers drawn from Protea Hotel Benin City in Benin City, Edo State, and 153 customers from Warri Wetland Hotel in Warri, Delta State.

Sample and Sampling Techniques

The sample size of 175 participants was determined using the Taro Yamane sample size formula, thus: Therefore, the sample size of the study was 175 guests from the two selected hotels. For sampling techniques, the study employed a purposive sampling method, selecting respondents who were readily available and willing to participate in the study. Purposive sampling is a non-probability sampling technique where participants are selected based on particular characteristics that serve the study's objectives (Kamboj et al., 2022). Purposive sampling, in this scenario, provides a focused approach to target the exact subset of the population that can offer rich and relevant insights, thereby making it an appropriate choice for

this study. Customers who had interacted with augmented reality marketing features in the selected hotels were included in the study.

Method of Data Collection

To ensure an adequate number of participants, questionnaires were distributed directly to hotel guests through face-to-face interactions, allowing for immediate engagement and clarification of any questions, thereby enhancing the quality and accuracy of responses. The questionnaire was developed to achieve the research objectives and was divided into two sections. The first section contained four questions to collect the participants' demographic profiles, while the second section consisted of 16 questions measuring five variables on a 5-point Likert scale, ranging from "5 – Strongly agree" to "1 – Strongly disagree." The items for the five variables were obtained from existing literature, with some modifications to the statements to align with the research objectives.

Validation of Instruments

The questionnaire was first subjected to a pre-test involving five academic experts to ascertain content validity. Subsequently, a pilot study was conducted with 10 respondents, all of whom had prior experience using AR for hotel bookings, to establish face validity. These steps to establish content validity and face validity are in line with Lim, Gupta, Aggarwal, Paul, and Sadhna (2023). Feedback from these respondents primarily centered on enhancing the clarity and format of the questionnaire. These suggestions were duly incorporated before the questionnaire was disseminated to the primary sample for this study.

Reliability of Instruments

The reliability of the instrument used in the study was assessed through the test-retest reliability method. This involved administering the same survey instrument to a group of respondents at two different points in time, with a specified time interval between the two administrations. The consistency of the responses across both tests was then evaluated to determine the reliability of the instrument. The results of the test-retest reliability showed a high level of consistency, indicating that the instrument was reliable for measuring the effect of augmented reality marketing strategies on consumer brand performance in the context of hotels in South-South Nigeria.

Method of Data Analysis

Data analysis for the study was conducted using both descriptive and inferential statistics, with multiple regression analysis employed to assess the relationships between augmented reality marketing strategies and consumer brand performance. Descriptive statistics were used to summarize and present key patterns, trends, and characteristics of the responses, ensuring quality control in the data analysis process by identifying any inconsistencies or anomalies. Multiple regression analysis, as an inferential statistical technique, was used to evaluate the effect of interactive product demonstrations, virtual product placements, and telepresence on consumer brand performance in the hotel industry in South-South Nigeria. This method enabled the researcher to determine the strength and direction of these relationships while controlling for other variables, providing a comprehensive understanding of the impact of augmented reality marketing strategies.

RESULTS AND DISCUSSION

Data Presentation

Table 2: Analysis from the Field Survey

Pattern focused	Number administered	Number returned	Number Used	Response rate
Customers	175	168	157	90%

Source: *Distributed Questionnaire (2025)*

A total of 175 copies of the questionnaire were administered; 157 returned were properly filled out. Therefore, the analysis was based on the response rate of 90%.

Table 3: Analysis of Respondents' Profile

S/N	Variables	Frequency	Percentage (%)
1	Gender		
	Male	66	42.04
	Female	91	57.96
2	Age Range		
	Below 30 years	61	38.85
	31-40 years	49	31.21
	41 years and above	47	29.94
3	Marital Status		
	Single	108	68.79
	Married	49	31.21
4	Educational Qualification		
	SSCE	37	23.57
	OND/NCE	55	35.03
	HND/B.Sc	53	33.76
	Postgraduate Degree	12	7.64

Source: *Field Survey, 2025*

The demographic analysis of the respondents reveals a higher proportion of females (57.96%) compared to males (42.04%). In terms of age distribution, the majority are below 30 years (38.85%), followed by those aged 31-40 years (31.21%), and 41 years and above (29.94%). Regarding marital status, significant majorities are single (68.79%), while 31.21% are married. Educational qualifications indicate that most respondents hold either OND/NCE (35.03%) or HND/B.Sc. (33.76%), with a smaller proportion having SSCE (23.57%) or postgraduate degrees (7.64%). These results suggest a relatively young, educated, and predominantly single population, with a higher representation of females.

Table 4: Augmented Reality Marketing and Customer Brand Performance

Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.311	1.312		.237	.813		
	Interactive Product Demonstration	.365	.076	.330	4.795	.000	.594	1.685
	Virtual Product Placement	.432	.074	.406	5.829	.000	.578	1.729
	Telepresence	.175	.063	.166	2.774	.006	.783	1.278
a. Dependent Variable: Customer brand performance								

Table 4 indicated that interactive product demonstration has a positive effect on customer brand performance (ß = 0.330, P < 0.05). Virtual product placement has a positive effect on customer brand performance (ß = 0.406, P < 0.05). It was indicated that telepresence has a positive effect on customer brand performance (ß = 0.166, P < 0.05).

Table 5: Analysis of Variance

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	242.185	3	80.728	67.626	.000[b]
	Residual	182.643	153	1.194		
	Total	424.828	156			
a. Dependent Variable: Customer brand performance						
b. Predictors: Constant, Telepresence, Interactive Product Demonstration, Virtual Product Placement						

The *F*-ratio in table 5 showed that the dimensions of augmented reality marketing considered in this study statistically significantly predict customer brand performance, $F = 67.626$, $0.000 < 0.05$. This means that the regression model is statistically significant.

Table 6: Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.755[a]	.570	.562	1.093
a. Predictors: (Constant), Telepresence, Interactive Product Demonstration, Virtual Product Placement				

Table 6 showed the extent to which the predictors of augmented reality marketing accounted for change in customer brand performance as reflected by the R Square, which showed that 57% (0.570) of the change in customer brand performance was brought about by the predictors of augmented reality marketing strategies.

DISCUSSION OF FINDINGS

Results demonstrated that interactive product demonstrations positively influence customer brand performance (ß = 0.330, P < 0.05). The hypothesis test indicated that interactive product demonstrations significantly enhance consumer brand performance in hotels located in South-South Nigeria (0.000 < 0.05). Lavoye et al. (2021) emphasized that augmented reality fosters memorable and engaging consumer experiences, hence improving brand memory and favorable connections through immersive interactions.

Research indicated that virtual product placement positively influences customer brand performance (ß = 0.406, P < 0.05). The hypothesis two test indicated that virtual product placements significantly enhance consumer brand performance in hotels located in South-South Nigeria (0.000 < 0.05). Rejeb et al. (2023) discovered that augmented reality product visualization tools enhance conversion rates and diminish product return rates by offering more precise representations of products prior to purchase. Liu and Li (2022) emphasized that augmented reality enhances engagement by enabling consumers to virtually interact with products and examine customization possibilities.

Results demonstrated that telepresence positively influences customer brand performance (ß = 0.166, P < 0.05). The examination of hypothesis three revealed that telepresence significantly enhances consumer brand performance in hotels located in South-South Nigeria (0.000 < 0.05). Kim and Ko (2019) asserted that media richness and interaction are essential for fostering telepresence, augmenting sensory engagement, and generating immersive digital experiences. Israel et al. (2019) elucidated telepresence's function in enhancing perceived enjoyment and utility, hence increasing booking tendencies and profitability for hotels.

CONCLUSION

The study concludes that augmented reality marketing strategies, including interactive product demonstrations, virtual product placements, and telepresence, significantly enhance consumer brand performance in the hospitality industry. These strategies create immersive and engaging experiences that allow customers to interact with hotel offerings in a more personalized and meaningful way. By leveraging these innovative tools, hotels can effectively capture customer attention, improve brand perception, and foster stronger connections with their target audience. Furthermore, the findings highlight the positive impact of these strategies on customer loyalty. By enhancing the customer experience through cutting-edge technologies, hotels can differentiate themselves in a competitive market. This not only increases customer satisfaction but also strengthens brand performance, paving the way for sustained growth and a loyal customer base.

Recommendations

The study recommended that hotels should:

i. invest in advanced AR technologies to enhance interactive product demonstrations, allowing customers to preview rooms, facilities, and services in immersive ways, thereby improving their decision-making process.

ii. expand the use of virtual product placements to showcase premium offerings, special packages, or unique services, as these have been shown to strongly influence brand performance.

iii. integrate telepresence features, such as virtual tours and live customer interactions, to create a sense of connection and accessibility, further strengthening customer engagement and satisfaction.

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