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**Corresponding author:**  
Nurul Komariyatin.  
Email:  
[nurul@unisnu.ac.id](mailto:nurul@unisnu.ac.id)

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# IMMERSIVE BRAND EXPERIENCES IN THE METAVERSE: A QUALITATIVE STUDY OF CONSUMER-BRAND INTERACTIONS IN VIRTUAL SPACES

Nurul Komariyatin<sup>1</sup>

<sup>1</sup>*Universitas Islam Nahdlatul Ulama Jepara, Indonesia*

## ABSTRACT

**Objective:** This research aims to explore how elements of immersive brand experiences in the metaverse- including gamification, interactive narrative, social interaction, visual realism, and the use of blockchain technology and NFTs- contribute to emotional engagement, belonging, and consumer loyalty.

**Research Design & Methods:** This study uses an exploratory qualitative approach with in-depth interview techniques with more than 20 participants who actively interact with brands on metaverse platforms such as Roblox, Decentraland, and The Sandbox. Data analysis was conducted through a thematic approach to identify consumer engagement and perception patterns.

**Findings:** The results show that immersive experiences that are participatory and personalized drive strong emotional attachment to brands. Gamification increases intrinsic motivation, interactive narratives deepen the emotional experience, and social interactions form a sense of community. Realistic visualizations increase trust, while NFT ownership provides a sense of exclusivity and control that strengthens consumer loyalty.

**Implications & Recommendations:** Brands are advised to design holistic metaverse experiences, integrating game elements, stories, communities and blockchain-based digital assets to build more meaningful and sustainable relationships with consumers.

**Contribution & Value Added:** This research makes a theoretical contribution to the study of digital marketing and brand engagement by highlighting the importance of a multidimensional approach based on immersive technology in building consumer loyalty in the Web3 era.

**Keywords:** Metaverse, Visual Realism, Non-Fungible Tokens (NFT), Emotional Engagement.

JEL codes: D91, L86, Z33.

**Article type:** research paper

## INTRODUCTION

The metaverse is a shared virtual space that combines physical and digital realities through virtual reality (VR), augmented reality (AR), artificial intelligence, and blockchain. Metaverse technology has become one of the most transformative innovations in the 21st century digital landscape (Ajani et al., 2023). As a representation of an immersive three-dimensional virtual environment, the metaverse opens up limitless opportunities for interaction between individuals, communities, and business entities, including brands (Dwivedi et al., 2022). The concept transcends the limitations of physical space and enables experiences that integrate visual, sensory, and emotional elements viscerally. In intensified globalization and digitalization, the metaverse is an

ideal strategic arena for exploring brand creativity and marketing innovation while addressing the challenge of creating unique and sustainable consumer experiences (Borba, 2023). Digital transformation has changed the way brands interact with consumers. Metaverse, which integrates technologies such as virtual reality (VR), augmented reality (AR), and blockchain, has been one of the most revolutionary innovations (Nalbant & Aydin, 2023). Platform seperti Decentraland, Roblox, dan Zepeto telah menjadi contoh utama bagaimana interaksi ini dikembangkan, menciptakan ekosistem digital yang mendukung keterlibatan konsumen secara mendalam (Prabakaran et al., 2024).

In an era where customer experience has become a key pillar of business success, the metaverse offers a unique opportunity to build integral consumer engagement (Patel, 2024). Brand interactions with consumers in virtual spaces are no longer one-way or passive (Wang, 2021). Consumers are now active participants who can modify, shape, and even create their own experiences through avatars, personalized narratives, and customizable environmental elements (Torres et al., 2018). This process includes various important dimensions, such as gamification, interactivity, virtual environment design, and narrative engagement, all of which contribute to forming consumers' perceptions and the quality of their relationship with the brand (Moon & Han, 2023). The emergence of the metaverse allows brands to create "phygital" experiences - a combination of the physical and digital worlds (Batat, 2024). In this ecosystem, brands promote their products or services and build stronger emotional connections with consumers through avatar-based interactions, games, and specially designed experiences (Bilgihan et al., 2024). Brands such as Gucci and Nike, for example, have launched virtual products in the form of Non-Fungible Tokens (NFTs), which not only increase brand value but also create a loyal consumer community (Joy et al., 2022).

The rapid adoption of the metaverse by younger generations, specifically Generation Z and millennials, further emphasizes the relevance of this platform (Lee et al., 2023). As a growing group in the digital ecosystem, they have strongly preferred technology-based experiences, as seen in platforms such as Roblox, Fortnite, and Decentraland (Dolata & Schwabe, 2023). This shift in consumer behavior illustrates the transition from a traditional focus on product consumption to engagement with complex digital experiences (Dwivedi & Hughes, 2023). Previous research has shown that immersive brand experiences can increase consumers' emotional engagement, purchase intentions, and brand loyalty (Moon & Han, 2023; Bousba & Arya, 2022). However, this literature is largely quantitative, focusing on behavioral outcomes such as purchase intent or loyalty levels without paying in-depth attention to the emotional, cognitive, and social dimensions of consumer experiences in the metaverse. Elements such as interactivity, realism, and narrative can potentially create more meaningful and personally relevant experiences for consumers. (Borba, 2023).

In the metaverse domain, the literature still shows significant gaps in the in-depth understanding of consumer interactions with brands. While quantitative studies provide insights into the impact of brand experiences on metrics such as purchase intentions, qualitative approaches allow exploration of more complex dynamics, such as how consumers interpret and internalize their experiences in virtual spaces. The Metaverse provides a unique opportunity to understand consumer behavior in virtual environments (J. Kaur et al., 2024). Factors such as interactivity, freedom of expression, and fantasy elements play an important role in creating an impactful consumer experience (Alexander et al., 2024). Consumers who feel they have control and freedom to experiment in a virtual space are more likely to emotionally engage with the brand, increasing their loyalty (Yoon et al., 2024).

Immersive experiences in the metaverse can influence consumers' purchase intentions and brand attachment in both the virtual and real worlds. The metaverse environment can create symbolic, utilitarian, and hedonic values that lead to deeper brand engagement (Wongkitrungrueng & Suprawan, 2024). However, despite its many potentials, the adoption of the metaverse by brands is not free from challenges. One of the key challenges is creating relevant and authentic experiences for different demographic groups. Generation Z, as one of the largest user groups of the metaverse, expects experiences that are personalized, interactive, and entertaining (Buhalis & Karatay, 2022). If this experience does not meet expectations, consumer loyalty to the brand may be jeopardized

(Bogicevic et al., 2024). These findings confirm the need for qualitative approaches to understand the deep psychological and social dimensions of brand experiences in the metaverse. The use of qualitative approaches not only enables a more comprehensive exploration of consumer-brand interactions but also provides practical insights for brands looking to optimize their presence in this digital space. By delving into consumer perceptions of elements such as gamification, realism and narrative, qualitative research can identify the most effective factors in building sustained consumer engagement (Moon & Han, 2023; Rane et al., 2023a). Understanding how interactions between consumers and brands in the metaverse can shape brand perception, engagement and consumer loyalty is important. This research aims to bridge the literature gap by exploring how consumers perceive and engage with brand experiences in the metaverse. This study will use a qualitative approach to identify the emotional and cognitive dynamics underlying consumer-brand interactions in virtual spaces. Focusing on interactivity, gamification, realism and narrative will provide an in-depth understanding of how these experiences shape consumers' relationships with brands.

## LITERATURE REVIEW

### The Concept of Metaverse

The Metaverse is a three-dimensional virtual environment that enables seamless social, commercial, and creative interactions. The concept is reinforced by advances in technologies such as virtual reality (VR), augmented reality (AR), and blockchain (Borba, 2023). The metaverse offers an immersive experience that integrates visual, sensory, and emotional elements, providing a strategic brand and marketing innovation platform. The concept of "metaverse" encompasses shared virtual spaces formed through the fusion of physically enhanced reality and virtual spaces, including virtual worlds, augmented reality, and the internet (Dwivedi et al., 2023). A central theme in the metaverse literature is its potential to improve social relations and community building (Bale et al., 2022). Researchers claim that the metaverse offers a unique avenue for individuals to connect and interact, transcending the limitations of physical reality (Ayiter, 2019). This is facilitated by the anonymity and adaptability inherent in virtual environments, which enable self-expression and identity exploration (Lee & Gu, 2022; Lee et al., 2024).

The metaverse provides a new space for brands to experiment with rich, interactive narratives. In contrast to traditional advertising, narratives in the metaverse are often immersive, allowing users to become part of the brand story in real time. For example, campaigns designed in a virtual environment can engage consumers in scenarios that reflect brand values, creating a deeper emotional connection (Yoon et al., 2024). Recent interest in the metaverse extends to its marketing and advertising potential (Shah & Murthi, 2021). A conceptual framework that highlights the ability of brands to shape consumer experiences by exploring the immersiveness, friendliness and fidelity of environments in the metaverse (Giang & Shah, 2023). Accumulating and dissecting consumer data is a key marketing advantage in virtual environments, offering real-time insights into interactions, preferences, and decision-making (Lee et al., 2024). Case studies underscore the marketing potential of the metaverse, although challenges such as limited technology adoption and privacy concerns remain (Buhalis et al., 2023; Hollensen et al., 2023).

Blockchain technology has also expanded the potential of the metaverse, particularly in creating digital assets such as Non-Fungible Tokens (NFTs). These assets allow brands to offer exclusive virtual products that not only reflect creativity but also provide real economic value. NFTs are often used to reinforce a sense of belonging among consumers, creating brand-centered communities with trust-based interactions (Sung et al., 2023). The metaverse, as a post-reality universe that combines the physical and digital worlds, relies on technologies such as Virtual Reality (VR) and Augmented Reality (AR), which enable multisensory interactions with virtual environments, objects, and individuals (Bojic, 2022). AR integrates digital information into real-world settings, while VR builds artificial environments. Metaverse connects social immersive platforms, blending digital and physical domains (Mystakidis, 2022). Consumer attitudes toward the metaverse, particularly VR and AR technologies, have attracted research attention (Giang Barrera & Shah, 2023; Dwivedi et al., 2023). Previous studies emphasized AR and VR applications

for customer interaction (Rauschnabel et al., 2022). The literature shows positive consumer attitudes towards Metaverse, with interest in trying VR and AR experiences (Ahn et al., 2017). Golf-Papez et al., (2022) details the Metaverse consumer experience journey and its potential impact on attitudes and behavior.

### Behavior and Metaverse

Consumer behavior is one of the important aspects of marketing studies, and it includes the mindset, actions, and emotional responses of consumers when interacting with a product or brand (Murphy & Dweck, 2016). In an ever-evolving digital world, consumer behavior occurs not only in the real world but also in virtual spaces such as the metaverse (Rane et al., 2023a). As an immersive three-dimensional virtual environment, the metaverse allows consumers to interact with brands through avatars, interactive narratives, and digital communities (Borba, 2023). Technologies such as virtual reality (VR), augmented reality (AR), and blockchain enrich this experience, creating an environment where consumers can customize their identities and actively engage with brands (Borba, 2023). In the metaverse, consumer behavior differs from traditional digital interactions due to its more active and participatory nature (Hadi et al., 2024). Consumers not only consume content but also create their own experiences through avatar customization, purchase of digital goods, and participation in virtual events (Kohler et al., 2011). This suggests that consumers in the metaverse have more control over how they interact with brands, affecting their loyalty and perception of the brand (Yoon et al., 2024).

Emotional motivation and social needs influence consumer behavior in the metaverse (Hadi et al., 2024). Consumers seek unique and personalized experiences that allow them to express their identity in virtual spaces (Bischoff et al., 2019). Interactive narratives, gamification challenges and social interactions are important factors that influence consumer engagement in the metaverse (Rane et al., 2023a). Consumers are likelier to exhibit loyal behavior when they feel part of a community supported by brands in the metaverse. Blockchain technology, especially through Non-Fungible Tokens (NFTs), also influences consumer behavior in the metaverse (Albayati et al., 2023). Consumers who own exclusive digital assets, such as virtual clothing or digital property, show higher attachment levels to the brands that provide those assets (Koles & Nagy, 2021). NFTs provide a sense of belonging and exclusivity that influences consumer behavior in building their identity in the virtual world. This factor further strengthens consumer loyalty to brands that offer unique value in the metaverse (Wongkitrungrueng & Suprawan, 2024). Consumer behavior in the metaverse transforms from passive to more participatory and personalized interactions. Consumers no longer just receive marketing messages but also actively shape their own experiences through various elements offered by the metaverse platform (Dwivedi et al., 2023). A deep understanding of how this behavior evolves is crucial for brands to build effective marketing strategies in the virtual space.

Metaverse as a new digital frontier for consumer behavior (Hadi et al., 2024). Their exploration of consumer identity, social influence, and belonging as components of the Metaverse underscores the collective role of these components in reshaping consumer behavior. The concept of immersive time (ImT) describes the time consumers spend in the Metaverse (Mogaji, 2023). Understanding the significance of ImT has implications for researchers, practitioners, technology developers, brand managers shaping Metaverse strategies, and policy makers ensuring consumer safety in immersive Metaverse experiences. Explorations of conceptual papers have progressed significantly to enhance our understanding of consumer engagement in the Metaverse. Influences driving generation Z's adoption of the Metaverse for socializing, evaluating the impact of individual personality traits on usage intentions (Chakraborty et al., 2023). Consumer responses to immersive brand experiences revealed that users who enjoy branded virtual worlds tend to invest more time exploring them (Wongkitrungrueng & Suprawan, 2024). This longer engagement allows them to better appreciate the practical and symbolic value of the virtual environment, in line with the concept of immersive time (Mogaji, 2023; Dwivedi et al., 2022).

### Immersive Brand Experience in Metaverse

Immersive brand experiences in the metaverse have become one of the key strategies for companies to build deep relationships with consumers (Rane et al., 2023a). In virtual environments,



brands can create experiences that are not possible in the physical world, such as dynamic interactions through avatars, unique designs that reflect brand identity, and narratives that engage users' emotions (Huang, 2019). Avatars, as virtual representations of users, allow consumers to personalize their interactions with brands, creating a closer connection (Foster et al., 2022). Aesthetically appealing and meaningful virtual environment designs also help shape positive perceptions of brands, strengthening their visual and emotional identities in the digital space (Yoon et al., 2024). Narrative is another important element in the brand experience in the metaverse (Bilgihan et al., 2024). A well-designed narrative not only conveys their values and vision but also engages consumers emotionally through relevant and meaningful stories (Mehra & Kansra, 2024). In the metaverse, narratives can be packaged interactively, such as in games, exploration-based experiences, or even virtual events involving direct user participation (Dewi et al., 2024). This allows brands to go beyond selling products; they create holistic experiences that inspire and strengthen consumer loyalty (Arya et al., 2024).

Interactivity is another key component that allows consumers to feel more engaged with brands (Ting et al., 2021). Consumers can interact with products or services in a fully simulated environment in the metaverse. The metaverse creates a unique and often enjoyable experience, ultimately increasing emotional engagement with the brand. It is also supported by blockchain technology that allows consumers to own the virtual goods they purchase in the metaverse, providing a real sense of ownership despite being in a digital space (Moon & Han, 2023). Given that interactions in the metaverse rely on new interactive media technologies (such as extended reality), the range of possible experiences can vary based on the level of virtuality. The degree of combination of virtual elements with real-world elements that users can experience through immersion or telepresence (Javornik et al., 2021). Media characteristics such as vividness (i.e., richness of representation) and interactivity (i.e., the ability of the system to allow users to modify form and content within the mediated environment) lead users to experience telepresence (i.e., the user's experience of being present in the environment), and thus feel immersed in the virtual (or virtually enhanced) environment (Animesh et al., 2011).

The combination of vividness and interactivity encourages users to experience telepresence, a subjective experience that makes users feel physically present in a virtual environment, even though they are actually in the real world (Animesh et al., 2011). Telepresence is important in increasing consumer engagement with brands in the metaverse (Bilgihan et al., 2024). When consumers feel truly present in a virtual environment, they tend to be more emotionally and cognitively engaged with the activities they perform in it (Shin, 2018). This can reinforce their positive perceptions of the brand, increase purchase intentions, and create long-term loyalty (Barhorst et al., 2021). This can reinforce their positive perceptions of the brand, increase purchase intentions, and create long-term loyalty (Willems et al., 2019). In the metaverse, the provision of customized experiences has been shown to positively impact consumers' perceptions of brands (Wongkitrungrueng & Suprawan, 2024). Consumers who control their virtual environment, such as customizing avatars or digital spaces, tend to feel more connected to brands that provide such experiences (Bischoff et al., 2019). This personalization reinforces a sense of ownership and emotional engagement, which are important factors in creating brand loyalty (Nikhashemi et al., 2021).

However, technological limitations and platform design can affect the level of interactivity and telepresence in the metaverse. To create an optimal experience, brands should ensure that their virtual environments offer high visual clarity, interactive responsiveness, and engaging narratives (Javornik et al., 2021). When these elements are well combined, consumers will feel a more immersive experience, which can increase their positive perception of the brand and encourage continued engagement (Wongkitrungrueng & Suprawan, 2024). In the context of the metaverse, consumer behavior is influenced not only by the quality of the product or service offered but also by their overall experience in the virtual environment (Mogaji, 2023). Interactivity and telepresence provide the basis for creating powerful brand experiences, which enable consumers to feel more connected, engaged, and loyal to brands in the digital space (Cowan & Ketron, 2019). Therefore, a deep understanding of these factors is important for brands that want to maximize their presence in the metaverse and create long-term consumer relationships.

## Consumer Engagement with Brands in Virtual Spaces

Consumer engagement with brands in the virtual space has created a new paradigm in consumer-brand relationships. In the metaverse, consumers are not just passive recipients of messages as in traditional media but also actively participate in shaping their own experiences (Kim et al., 2022). Using avatars allows consumers to customize their digital identities according to their preferences, enabling more personalized interactions with brands (Anujan et al., 2024). This customization is one of the elements that encourage a sense of belonging to the product or service the brand offers, strengthening emotional connections and increasing consumer loyalty (Yoon et al., 2024). In addition, narrative plays a significant role in building deep emotional connections. In the metaverse, narratives are not only delivered linearly but also involve users as part of the story itself (Xu et al., 2023). For example, brands can create interactive storylines where consumers actively determine the final outcome. This provides a greater sense of ownership of the story the brand tells, increasing engagement and a sense of emotional affiliation with the brand's values.

Social interaction is also important to creating deep consumer engagement in the metaverse (Rane et al., 2023a). In virtual spaces, consumers can connect with other users, forming communities based on common interests. These communities are not only a place to share experiences but also a means to strengthen brand identity. For example, fashion brands that hold virtual events, such as new collection launches, can leverage user interactions to create organic conversations about their products. These social interactions often result in a more authentic connection between consumers and brands than traditional marketing approaches (Borba, 2023). Another important element is the ease consumers can modify their experience in virtual spaces. With features such as customizable environments and interactive design tools, consumers can create unique experiences that align with their preferences. This not only gives consumers more control but also strengthens their attachment to the brand providing the platform. This flexibility allows brands to position themselves as facilitators of unique experiences, thus differentiating themselves from competitors (Moon & Han, 2023).

Innovations such as Non-Fungible Tokens (NFTs) provide a new dimension to consumer engagement. Consumers can own unique digital goods using NFTs, such as virtual clothing, accessories, or digital art (Joy et al., 2022). This ownership adds value to the consumer, both emotionally and economically, while creating a stronger connection with the brand (Morewedge et al., 2021). NFTs also facilitate forming exclusive communities where NFT holders can enjoy certain benefits, such as access to special events or exclusive offers from brands (Wongkitrungrueng & Suprawan, 2024). In conclusion, consumer engagement with brands in virtual spaces goes beyond traditional interactions by providing interactive, personalized, and community-based experiences (Kaur et al., 2020). Elements such as avatars, narratives, social interactions, and innovative technologies such as NFTs give brands the ability to create experiences that are not only engaging but also meaningful (Joy et al., 2022). With a strategic approach, the metaverse becomes a platform capable of building deep emotional connections between consumers and brands, creating sustainable loyalty in the digital age.

## METHODS

This study used a qualitative approach with a phenomenological design to explore consumer engagement with brands in the metaverse. Participants were recruited randomly through an open invitation distributed on online forums and platform communities such as Decentraland, Roblox, and Zepeto to ensure a diverse representation of experiences. Data was collected through 30-45 minute online semi-structured interviews, which explored consumers' experiences with the brand, the elements that caught their attention, and the impact on brand perception. Direct observation within the metaverse platform was also conducted to document patterns of consumer interaction with the brand. Data was analyzed using a thematic approach to identify key patterns and themes such as personalization, narrative, gamification, and social interaction. Data validity was maintained through source triangulation by comparing interviews, observations, and responses from other participants, as well as member checking to ensure the accuracy of interpretation. The research followed ethical guidelines, where the anonymity and confidentiality of participants were

maintained. With this method, the research generated deep insights into consumer engagement with brands in the metaverse through diverse representations of experiences.

## RESULT AND DISCUSSION

### Personalization and Customization Increase Consumer Engagement

Research results show that personalization and customization are key factors influencing consumer engagement with brands in the metaverse (Rane et al., 2023b; Bilgihan et al., 2024; Agnihotri et al., 2024). Communicators highly value the ability to personalize their avatars and modify the virtual environment according to personal preferences (Takano & Taka, 2022). This personalization feature allows consumers to create a unique digital identity and reflect their personality in the virtual space (Lin & Latoschik, 2022). This process provides a greater sense of control and ownership over their experience in the metaverse, ultimately increasing emotional attachment to the brand providing the feature. In the context of the metaverse, personalization allows consumers to build unique and personally relevant experiences, which impacts how they perceive and feel the relationship with the brand (Wongkitrungrueng & Suprawan, 2024). Research participants revealed that they feel more connected to brands that provide the freedom to customize virtual elements such as avatar clothing, digital spaces, and other virtual assets. The results of this study support research conducted by (2024), revealing that when consumers are given full control to customize their avatars, select virtual items, or modify their digital environment, they feel more connected to the brand. These feelings strengthen their emotional connection with the brand and increase long-term loyalty (Yoon et al., 2024). Consumers who customize their experience tend to feel that the brand is more relevant to their needs and values, creating a stronger sense of affiliation (MacInnis & Folkes, 2017). The ability to express personal identity in a virtual space also creates a stronger sense of belonging to the brand's product or service (Bojic, 2022). Consumers feel that their virtual experience is not generic but tailor-made for them. This provides a sense of exclusivity that can strengthen the emotional connection between the consumer and the brand (Peng et al., 2025). This personalization is crucial in building loyalty, as consumers who feel their experiences are relevant and unique tend to have higher emotional attachments and are more likely to interact repeatedly with the brand (Moon & Han, 2023).

Customization features in the metaverse not only create an emotional connection but also give consumers a greater sense of control (Rane et al., 2023a). Customization provides an opportunity for consumers to express their identity and creativity. In a virtual environment, they can create avatars that reflect aspirations or lifestyles that they may not be able to realize in the real world (Silva et al., 2022). This creates a more meaningful experience and increases consumer loyalty to brands with such freedom of expression. Research shows that consumers who control their virtual experience are more satisfied with the interaction. They can select visual elements, customize narrative scenarios, or create unique virtual items (Chamola et al., 2024). This sense of control reinforces consumers' perception that their experience is truly designed to meet their needs and preferences, ultimately strengthening their attachment to the brand (Borba, 2023). Previous studies have also shown that personalization in the digital space can increase positive perceptions of the brand, as consumers feel the experience they get is unique and personal (Yoon et al., 2024).

Customization in the metaverse can influence consumer purchase behavior (Rane et al., 2023a). The emotional engagement that results from this personalization and customization also impacts consumer behavior, specifically in purchase intent and loyalty (Zhang et al., 2021). Consumers who feel emotionally connected to brands are likelier to make repeat purchases and share their positive experiences with their digital communities (Alshreef et al., 2023). This research notes that they are likelier to purchase digital goods or participate in virtual events that allow customization. This creates opportunities for brands to increase revenue by offering products and services that consumers can customize. Relevant customization features can also strengthen consumers' long-term engagement with brands, as they feel they have a different experience each time they interact in the metaverse (Rane et al., 2023a). In the context of marketing in the metaverse, personalization is becoming an important strategy to create relevant and engaging consumer experiences (Rane et al., 2023b). By offering customization features, brands can create

personalized experiences, increase emotional engagement, and build ongoing loyalty (Nitin et al., 2023). This creates a chain effect where consumers who are satisfied with their personalized experience can influence others to engage with the brand (Nguyen et al., 2022). Consumers with personalized immersive experiences in the metaverse show higher purchase intentions, even if the products offered are digital and have no real physical value (Willems et al., 2019).

Moreover, personalization in the metaverse allows brands to create sustainable experiences relevant to consumers' evolving needs (Mourtzis et al., 2022). For example, brands can offer digital products that are constantly updated and can be customized based on consumer feedback, creating a continuous cycle of engagement. A study by Barhorst et al. (2021) found that continuous personalization increases consumer loyalty, as they feel that brands are attentive to their needs and continue to offer new experiences relevant to their interests. However, it is important to note that not all consumers have the same preference for personalization (Chandra et al., 2022). Some consumers may feel overwhelmed by too many choices, which can lead to decision fatigue (Y. Wang et al., 2023). Therefore, brands must ensure that they offer personalization options that are intuitive and easy to use, without overwhelming consumers with too many confusing options. With the right approach, personalization can be a highly effective tool to increase consumer engagement, strengthen emotional connections, and drive brand loyalty in the virtual space (Kang et al., 2020). Overall, these findings confirm that personalization and customization in the metaverse play an important role in creating unique and relevant consumer experiences. Brands that can offer personalized experiences will have a significant competitive advantage in creating long-term relationships with consumers. Personalization not only increases emotional engagement but also contributes to higher purchase intentions and sustained consumer loyalty.

**Table 1 Customization and its Impact on Consumer Engagement**

Themes Identified	Participant Feedback	Impact of Engagement	Reference
Avatar Customization	Allows expression of personal identity and creativity	High emotional engagement promotes continuous interaction	Yoon et al. (2024); Moon & Han (2023)
Virtual Space Modification	Creates a sense of ownership and control in virtual environments	Strengthens attachment to the brand's digital ecosystem	Borba (2023); Willems et al., (2019)
Item Personalization	Enhances emotional connection to virtual products	Increases intention to purchase virtual items	Nikhashemi et al. (2021); Barhorst et al., (2021)
Event Participation	Encourages social interaction and strengthens brand loyalty	Builds community and brand loyalty through shared experiences	Arya et al., (2024) ; Kang et al. (2020)

Table 1 presents the key themes identified during this study's analysis of participant responses. These themes include the various customization features available on the metaverse platform and how they influence consumer experience and behavior. Research participants provided positive feedback regarding their ability to customize avatars, modify virtual spaces, personalize digital items, and participate in brand-hosted events. These features not only allow consumers to express their identity but also provide a sense of control and ownership that strengthens their emotional connection with the brand (Yoon et al., 2024). Avatar customization, for example, is considered a very important feature as it gives consumers the freedom to express their creativity and personality in the virtual space. Participants felt that the ability to choose their avatar's clothing, accessories, or appearance created a more personalized and relevant experience. This contributes to higher emotional engagement, where consumers feel more connected to brands that support their self-expression (Moon & Han, 2023).



Virtual space modification also plays a significant role in creating a unique consumer experience. The ability to decorate and customize virtual environments provides a greater sense of ownership of the digital space they occupy. This strengthens consumers' emotional attachment to brands that offer such features, as they feel they have full control over the experience they create (Borba, 2023). In addition, the personalization of digital items, such as virtual clothing, furniture, or accessories, increases consumers' emotional connection to the products they purchase. Consumers who can customize their virtual products tend to show higher purchase intentions, as they feel that the products reflect their identity and preferences. This personalization creates a more meaningful experience and strengthens consumer loyalty to the brand (Nikhashemi et al., 2021).

Participation in virtual events organized by brands was also considered important in building brand-based communities. Participants feel that these events provide an opportunity to interact with the brand and strengthen their social relationships with other users on the metaverse platform. These social interactions are instrumental in creating a sense of community and strengthening consumer loyalty to the brand that facilitated the event (Arya et al., 2024). Table 1 highlights that customization features in the metaverse platform have a significant impact on consumers' emotional engagement with brands. Personalization and customization not only enhance the consumer experience but also create stronger long-term relationships with brands. These features allow brands to offer a more personalized experience, which drives purchase intent, increases loyalty, and strengthens the brand's position in the virtual space (Barhorst et al., 2021).

### **Interactive Narrative Strengthens Emotional Connection with the Brand**

Interactive narratives in the metaverse are highly effective tools for creating deep emotional connections between consumers and brands (Bilgihan et al., 2024). In contrast to traditional narratives that are passive, narratives in the metaverse actively engage consumers, where they become the main participants in the story designed by the brand (Kalender & Guzmán, 2024). This allows consumers to not only hear or see the story but also experience it directly through their avatars. Most participants in this study revealed that experiences involving personalized stories, such as virtual challenges, narrative journeys, or specific missions, helped them feel more connected to the brand's values and messages (Yoon et al., 2024). Interactive narratives strengthen emotional connections by creating personally relevant experiences. For example, in a virtual scenario, brands can invite consumers to participate in story-based challenges related to the brand's values or mission. These challenges include solving puzzles, exploring a virtual world, or collaborating with other users to achieve a common goal. Consumers who feel part of the story will likely develop deeper emotional bonds as they feel a direct contribution to the storyline and the outcomes achieved (Moon & Han, 2023).

Narratives in the metaverse are often designed to involve emotional elements, such as rescuing characters in the story, resolving conflicts, or overcoming challenges that demand cognitive and emotional engagement. The study by Willems et al. (2019) shows that this narrative experience increases empathy and a sense of belonging to the brand, as consumers feel they are sharing an emotional journey with the brand. Interactive narratives also contribute to increasing the duration of consumer interactions with brands in the metaverse (Bilgihan et al., 2024). When consumers are engaged in a compelling story, they tend to spend more time exploring the virtual world that has been designed (Barhorst et al., 2021). This longer interaction time gives brands more opportunities to reinforce their message and create experiences that stick in consumers' memories (Borba, 2023). In addition to emotional connection, interactive narratives encourage social engagement between users. Consumers engaged in stories often interact with other users in the metaverse, either through cooperating in achieving narrative goals or sharing their experiences within the community (Rane et al., 2023a). These interactions reinforce a sense of community and build strong brand-based communities. Studies show that collaboratively designed narratives increase consumers' brand loyalty, as they feel part of the community supported by the brand (Arya et al., 2023).

The technologies behind the metaverse, such as virtual reality (VR) and augmented reality (AR), also enable the creation of more immersive narratives (Dincelli & Yayla, 2022). Consumers can feel truly present in the story told by the brand, known as telepresence (Chen & Yao, 2022).

Telepresence increases emotional engagement because consumers feel they are actually in the story, not just passive observers (de Regt et al., 2021). narratives can create telepresence experiences that strengthen consumers' attachment to brands (Steuer, 1992). Overall, interactive narratives in the metaverse provide a great opportunity for brands to create strong emotional connections with consumers. By engaging consumers in personalized and relevant stories, brands not only increase emotional engagement but also build long-term loyalty. This strategy is key to harnessing the potential of the metaverse as a space for deep and meaningful brand interactions.

### **Social Interaction Strengthens Brand-Based Communities**

Social interactions within the metaverse have been shown to play a strategic role in strengthening brand-based communities and increasing consumer loyalty (Wongkitrungrueng & Suprawan, 2024). Studies show that virtual spaces enabling user interaction, such as digital events, collaborative games, or experience-sharing forums, create a deeper sense of connectedness between consumers and brands (Hadi et al., 2024). Active participation in metaverse communities strengthens social relationships between users and deepens emotional affiliation to brands through meaningful shared experiences (Bilgihan et al., 2024). Interactive experiences in the metaverse environment increase consumers' trust and commitment to the brand, creating a more durable form of loyalty (Rane et al., 2023b). Thus, social interaction in the metaverse is not just a form of entertainment but an important element in community-based marketing strategies.

The development of the metaverse as an immersive virtual space has opened up new opportunities to shape the relationship between brands and their consumers. One of the most important aspects of the metaverse ecosystem is the social interaction that can be facilitated through features such as avatars, digital events, collaborative games, and experience-sharing spaces. Studies have shown that these forms of interaction play a strategic role in strengthening brand-based communities. When consumers engage in shared activities with brands and fellow users in virtual worlds, they develop a stronger sense of belonging to the community (A. Chakraborty et al., 2025). Collaborative activities and shared social experiences strengthen the emotional bonds between community members and, at the same time, deepen their affiliation with the brand's values (Lee & Hsieh, 2022). This is in line with the finding that active social engagement in the metaverse facilitates a new form of loyalty based more on relationships and emotional experiences rather than simply on the product's functional benefits (Radiah et al., 2023). The existence of social features in the metaverse allows consumers to not only be passive recipients of brand messages but also active participants who take part in shaping the brand narrative (Bilgihan et al., 2024). This gives consumers the power to contribute to the culture of the brand community through creating user-generated content, organizing events, or even creating a digital identity associated with the brand's values. This active engagement increases perceptions of brand authenticity and strengthens mutual trust between the brand and its consumers (Kalyvaki et al., 2023). Other research supports this view by showing that immersive experiences designed with strong social elements strengthen trust in the brand, which is an important prerequisite in building long-term loyalty (Lee & Hsieh, 2022). This suggests that virtual worlds are not just entertainment spaces but have become a strategic means of creating deeper and longer-lasting emotional attachments to brands.

Table 2 explains that social features in the metaverse are not only recreational but also strategic in building psychological and affective bonds that strengthen consumer loyalty. The interactions in the metaverse space can create meaningful collective experiences, transforming consumers from passive users to active members of the brand community. Thus, companies looking to build long-term loyalty in the digital age must integrate social interactions as the foundation of a community-based marketing strategy. This is also in line with the global trend where consumer loyalty is increasingly determined by the quality of relationships and shared experiences, not just by the product or service itself. The metaverse represents a paradigm shift in how brands build and maintain consumer relationships (Bilgihan et al., 2024). The social interactions within them not only increase engagement but also form the emotional foundation on which authentic and enduring loyalty is based. Through the creation of inclusive, interaction-based communities and shared experiences, consumers feel valued and involved in brand dynamics in a more personalized and

enjoyable way (Choi et al., 2023). Recent studies confirm that in an increasingly connected digital age, consumer loyalty can be bought through incentive programs or discounts and built through meaningful experiences and relationships (Treiblmaier, 2023). Therefore, social interaction in the metaverse should be viewed as a crucial element in long-term-oriented brand marketing strategies.

**Table 2 The Role of Social Interaction in the Metaverse on Consumer Loyalty**

Social Interaction Features in Metaverse	Strategic Function	Impact on Consumer Loyalty	Reference
Personalized Avatars	Facilitates expression of identity and affiliation with the brand	Increases sense of attachment to the brand community	Radiah et al., (2023)
Virtual Events (launches, concerts, talk shows)	Increases engagement and creates memorable collective moments	Increases intention to re-engage with the brand	A. Chakraborty et al. (2025)
Collaborative Games	Encourages cooperation between users that strengthens social relationships	Encourages voluntary brand advocacy	Chandel et al., (2024)
Community Rooms & User Forums	Builds social networks around brand values	Increases trust and long-term loyalty	Kalyvaki et al., (2023)
Social Reputation & Reward System	Provides emotional incentives and social status within the community	Strengthens user identification with the brand ecosystem	Ramdhani et al., (2024)

### Gamification Increases Motivation and Loyalty

Gamification is the application of game elements- such as points, levels, challenges, and rewards- in a non-game context, which has been shown to significantly increase consumer motivation to interact with brands in digital environments. In the context of the metaverse, gamification provides a more immersive and enjoyable experience for consumers, who do not just passively interact but become active participants in exploring brand value. Gamification experiences in the metaverse significantly influence purchase intention, attitude toward the brand, and intention to revisit the brand's virtual space (Moon & Han, 2023). Elements such as virtual rewards and personal achievements provide a sense of accomplishment and recognition that motivates users to continue participating. Gamification in the metaverse encourages affective engagement with the brand and increases user satisfaction and advocacy (Bousba & Arya, 2022).

Gamification not only increases momentary engagement but is also an important mechanism in shaping long-term consumer loyalty (Behl et al., 2024). Gamification strategies in metaverse marketing successfully forge stronger emotional connections between brands and consumers, as they feel rewarded through virtual incentive systems such as exclusive status, badges, or premium content access (Chandel et al., 2024). Such rewards provide not only functional but also emotional incentives, contributing to an increased perception of value and affection towards the brand. Gamification mediates the relationship between consumer engagement and brand loyalty, where the greater the engagement in the game system, the higher the level of loyalty formed (Ramdhani et al., 2024). Gamification also creates a healthy competitive environment, allowing users to compare their achievements with other users, which, in the long run, encourages repeat participation and consistent interaction with the brand.

In a strategic framework, gamification in the metaverse is not just an entertainment tool but an integral component in creating transformative, long-term, relationship-oriented brand experiences. Fun, sustainable, and competitive gaming experiences create shared value between consumers and brands and expand the space for co-creation in brand image development (Nobre & Ferreira, 2017). The study by Asmita Gaikwad (2024) menggunakan pendekatan neural network

untuk menunjukkan bahwa faktor motivasional seperti used a neural network approach to show that motivational factors such as digital rewards have a significant influence on loyalty, especially among the millennial generation. In general, successfully implementing gamification requires not only the design of engaging game mechanics but also alignment with brand values and changing consumer preferences. Therefore, brands looking to maintain relevance in the metaverse should design gamification strategies that are adaptive, dynamic, and data-driven to build sustainable loyalty.

### **Realism and Visual Quality Increase Consumer Trust**

In virtual reality-based digital landscapes, such as the metaverse, high levels of visual realism and graphic quality determine consumers' cognitive and affective perceptions of a brand (Mansoor et al., 2024). Representational technologies capable of accurately simulating real-world environments through dynamic lighting, high-quality textures, and multisensory interactivity establish an affordant dimension of trust, where the user experience is not only processed as entertainment but as a projection of the brand's own credibility. Perceived realism, which is divided into subdimensions such as avatar engagement, overarching sensory perception, and social realism, contributes significantly to the intensification of user engagement in the metaverse environment. This engagement, within the framework of immersive media theory, acts as an antecedent of proactive consumer behavior, including further information exploration and increased offline brand engagement intentions (Cheung et al., 2024). High realism in visualization not only enhances aesthetic appeal but also creates deeper belief construction through simultaneous affective and cognitive experiences (Javornik et al., 2021).

Within the framework of cognitive-affective-behavioral theory, visual quality integrated with interactive recommendation systems in the metaverse can strengthen affective trust, which is the emotional trust that arises in response to the consistency, aesthetics, and ease of user experience. In this context, visuals are no longer just a communication aid but an ontological representation of the brand's value and quality (Abumalloh et al., 2024). The correlation between visual elements and brand perception, which was identified in a systematic study, is that brand visual identity significantly impacts consumers' assessment of quality, brand personality, and loyalty (Vinitha et al., 2021). In the metaverse, where interactions occur in a non-physical domain, visual identity becomes a symbolic entity that replaces touch, smell, and tactile aspects of the consumer experience. Therefore, visual design strategies in the context of the metaverse must be optimized as a medium capable of conveying brand reliability and authenticity while creating an immersive brand experience that can translate into long-term preference and loyalty..

### **Use of Blockchain Technology and NFTs Promotes Sense of Ownership**

In the context of Web-based digital marketing<sup>3</sup>, blockchain technology and Non-Fungible Tokens (NFTs) have presented a new model of building relationships between consumers and brands that is more interactive, participatory, and ownership-oriented (Moroz et al., 2024). Unlike the conventional approach where consumers are merely users of products, the blockchain ecosystem allows consumers to become the rightful owners of digital assets issued by brands, such as artwork, exclusive access, digital fashion items, or even virtual spaces (Wilson et al., 2022). This sense of ownership is not purely symbolic but rather supported by a decentralized verification system that cannot be manipulated, thus increasing consumers' trust and emotional attachment to the brand (Morewedge et al., 2021). NFTs serve as a medium to form a more intimate connection between consumers and brands by owning unique digital assets. This model allows for a more personalized, emotionally valuable, and collectible consumer experience, which are important components in building long-term loyalty (Martin, 2022). An NFT-based system was designed for a customer loyalty program in the agribusiness sector, and it was found that the exclusivity and personalization characteristics of NFTs encourage customers to make repeat purchases to obtain more personalized digital assets (Hosseinalibeiki & Zaree, 2023).

Ownership of NFTs also facilitates perceptions of control and active participation, where consumers feel they have contributed to the brand narrative or community (Xie et al., 2023). This phenomenon results in a more social and affective identification-oriented form of loyalty, the



utilitarian and hedonic value of NFTs derived from features such as rarity, aesthetics, and blockchain security, contributing directly to consumers' purchase intentions and loyalty towards such digital assets. Furthermore, using NFTs in brand ecosystems reinforces exclusivity-based community structures. Consumers who own an official NFT from a brand are typically given access to limited events, specialized forums, or advanced collections, which creates an additional status-based layer of experience. This creates a kind of symbolic capital in the virtual community, where NFT ownership is not just about access but also about social recognition among members of the digital community who are loyal to the brand (Gupta, 2023). Thus, it can be concluded that NFTs and blockchain are not only revolutionizing the technical aspects of digital ownership but are also becoming strategic tools in creating loyalty based on identity, engagement, and affective value. Brands that integrate these technologies into their marketing strategies not only enrich consumer interactions but also build stronger, long-term relationships based on a documented, provable, and unreplicable sense of belonging.

## CONCLUSION

This research confirms that the metaverse, an immersive and participatory virtual space, opens up new strategic opportunities for brands to build more emotional, personalized, and engaged consumer experiences. Through a qualitative approach involving an in-depth exploration of user perceptions and experiences, the study found that several key elements- namely, gamification, interactive narrative, social interaction, realistic visual quality, and the use of blockchain and NFT technologies- significantly contribute to increased consumer emotional engagement, ownership, and brand loyalty. First, gamification elements create intrinsic motivation for consumers to continue interacting with the brand through reward systems, skill-based challenges, and digital status. Second, interactive narratives provide space for consumers to actively participate in shaping the brand story experience, which deepens emotional connections and extends the duration of engagement. Third, social interaction among users in virtual communities strengthens the collective dimension of consumer loyalty, forming a sense of community that enhances brand advocacy. Fourth, high-quality visualization and graphical realism create a perception of brand credibility and professionalism, thus building a strong foundation of trust. Finally, ownership of blockchain-based digital assets- particularly NFTs- encourages feelings of control, exclusivity, and affiliation towards the brand identity, making consumers not just users but also part of the brand value ecosystem itself.

The study concludes that the success of marketing strategies in the metaverse relies heavily on brands' ability to create emotionally, socially, and technologically integrated experiences that are not only cognitively relevant but also affectively meaningful. In a digital era based on participation and ownership, consumer engagement can no longer be built solely through one-way promotions but must be realized through experience design that allows consumers to feel "belonging", "playing a role", and "connected" in the brand ecosystem. This research makes conceptual and practical contributions to developing future brand engagement strategies and highlights the importance of a multidimensional approach in designing consumer experiences in the metaverse.

## REFERENCES

- Abumalloh, R. A., Nilashi, M., Halabi, O., & Ali, R. (2024). Does the metaverse improve recommendation quality and customer trust? A user-centric evaluation framework based on the cognitive-affective-behavioural theory. *Journal of Innovation & Knowledge*, 9(4), 100569. <http://doi.org/10.1016/j.jik.2024.100569>
- Agnihotri, D., Chaturvedi, P., Swarup, K., Mathur, A., Tripathi, V., & Singh, N. (2024). Does social presence drive customer brand engagement and purchase intention in the fashion retail metaverse? The moderating role of self-efficacy. *Internet Research*. <http://doi.org/10.1108/INTR-01-2024-0030>
- Ahn, J., Choi, S., Lee, M., & Kim, K. (2017). Investigating key user experience factors for virtual reality interactions. *Journal of the Ergonomics Society of Korea*, 36(4), 267–280. <http://dx.doi.org/10.5143/JESK.2017.36.4.267>

- Ahn, S. J. (Grace), Kim, J., & Kim, J. (2022). The Bifold Triadic Relationships Framework: A Theoretical Primer for Advertising Research in the Metaverse. *Journal of Advertising*, 51(5), 592–607. <http://doi.org/10.1080/00913367.2022.2111729>
- Ajani, Y. A., Enakrire, R. T., Oladokun, B. D., & Bashorun, M. T. (2023). Reincarnation of libraries via metaverse: A pathway for a sustainable knowledge system in the digital age. *Business Information Review*, 40(4), 191–197. <http://doi.org/10.1177/02663821231208044>
- Albayati, H., Alistarbadi, N., & Rho, J. J. (2023). Assessing engagement decisions in NFT Metaverse based on the Theory of Planned Behavior (TPB). *Telematics and Informatics Reports*, 10, 100045. <http://doi.org/10.1016/j.teler.2023.100045>
- Alexander, B., Blazquez, M., Chrimes, C., & Boardman, R. (2024). The role of immersive spaces on the customer experience: An exploration of fashion metaverses. *Psychology & Marketing*. <http://doi.org/10.1002/mar.22140>
- Alshreef, M. A., Hassan, T. H., Helal, M. Y., Saleh, M. I., Tatiana, P., Alrefae, W. M., ... Elsayed, M. A. S. (2023). Analyzing the Influence of eWOM on Customer Perception of Value and Brand Love in Hospitality Enterprise. *Sustainability*, 15(9), 7286. <http://doi.org/10.3390/su15097286>
- Animesh, Pinsonneault, Yang, & Oh. (2011). An Odyssey into Virtual Worlds: Exploring the Impacts of Technological and Spatial Environments on Intention to Purchase Virtual Products. *MIS Quarterly*, 35(3), 789. <http://doi.org/10.2307/23042809>
- Anujan, A., Foroudi, P., & Palazzo, M. (2024). Rethinking digital entrepreneurship in a digital transformation era: leveraging on brand avatars to boost brand experiences and loyal communities. *European Journal of Innovation Management*. <http://doi.org/10.1108/EJIM-03-2024-0325>
- Arya, V., Sahni, S., Oukhayi, B., & Aurskevičienė, V. (2024). Visitors' attraction and co-creation at World Expo – a qualitative study unveiling visitors' delight and engagement with immersive technology. *Tourism Recreation Research*, 1–23. <http://doi.org/10.1080/02508281.2024.2352211>
- Asmita Gaikwad. (2024). Play, Engage, Repeat: Leveraging Gamification and Machine Learning for Brand Loyalty Among Indian Millennials. *Journal of Informatics Education and Research*, 4(3). <http://doi.org/10.52783/jier.v4i3.1892>
- Ayiter, E. (2019). Spatial poetics, place, non-place and storyworlds: Intimate spaces for metaverse avatars. *Technoetic Arts*, 17(1), 155–169. [http://doi.org/10.1386/tear\\_00013\\_1](http://doi.org/10.1386/tear_00013_1)
- Bale, A. S., Ghorpade, N., Hashim, M. F., Vaishnav, J., & Almaspoor, Z. (2022). A Comprehensive Study on Metaverse and Its Impacts on Humans. *Advances in Human-Computer Interaction*, 2022, 1–11. <http://doi.org/10.1155/2022/3247060>
- Batat, W. (2024). Phygital customer experience in the metaverse: A study of consumer sensory perception of sight, touch, sound, scent, and taste. *Journal of Retailing and Consumer Services*, 78, 103786. <http://doi.org/10.1016/j.jretconser.2024.103786>
- Behl, A., Pereira, V., Sindhwani, R., Bhardwaj, S., Papa, A., & Hassan, Y. (2024). Improving Inclusivity of Digitalization for Employees in Emerging Countries Using Gamification. *IEEE Transactions on Engineering Management*, 71, 13867–13881. <http://doi.org/10.1109/TEM.2022.3216553>
- Bilgihan, A., Leong, A. M. W., Okumus, F., & Bai, J. (2024). Proposing a metaverse engagement model for brand development. *Journal of Retailing and Consumer Services*, 78, 103781. <http://doi.org/10.1016/j.jretconser.2024.103781>
- Bischoff, J., Berezan, O., & Scardicchio, L. (2019). The digital self and customer loyalty: from theory to virtual reality. *Journal of Marketing Analytics*, 7(4), 220–233. <http://doi.org/10.1057/s41270-019-00065-4>
- Bogicevic, V., Liu, S. Q., Kandampully, J. A., Seo, S., & Rudd, N. A. (2024). Experiential Marketing to Gen Z: Fine-Tuning Brand Experience Through Virtual Reality. *Journal of Hospitality & Tourism Research*, 48(8), 1424–1438. <http://doi.org/10.1177/10963480241256564>
- Bojic, L. (2022). Metaverse through the prism of power and addiction: what will happen when the virtual world becomes more attractive than reality? *European Journal of Futures Research*, 10(1), 22. <http://doi.org/10.1186/s40309-022-00208-4>
- Borba, E. Z. (2023). Believability in virtual reality: a proposal to study brand communication in metaverses. *Novos Olhares*, 11(2), 205283. <http://doi.org/10.11606/issn.2238-7714.no.2022.205283>

- Bousba, Y., & Arya, V. (2022). Let's Connect in Metaverse. Brand's New Destination to Increase Consumers' Affective Brand Engagement & Their Satisfaction and Advocacy. *Journal of Content Community and Communication*, 15(8), 276–293. <http://doi.org/10.31620/JCCC.06.22/19>
- Brannon Barhorst, J., McLean, G., Shah, E., & Mack, R. (2021). Blending the real world and the virtual world: Exploring the role of flow in augmented reality experiences. *Journal of Business Research*, 122, 423–436. <http://doi.org/10.1016/j.jbusres.2020.08.041>
- Buhalis, D., & Karatay, N. (2022). Mixed Reality (MR) for Generation Z in Cultural Heritage Tourism Towards Metaverse. In *Information and Communication Technologies in Tourism 2022* (pp. 16–27). Cham: Springer International Publishing. [http://doi.org/10.1007/978-3-030-94751-4\\_2](http://doi.org/10.1007/978-3-030-94751-4_2)
- Buhalis, D., Lin, M. S., & Leung, D. (2023). Metaverse as a driver for customer experience and value co-creation: implications for hospitality and tourism management and marketing. *International Journal of Contemporary Hospitality Management*, 35(2), 701–716. <http://doi.org/10.1108/IJCHM-05-2022-0631>
- Chakraborty, A., Jain, V., & Belk, R. (2025). Exploring Avatar Selves in the Metaverse: Consumer Co-Creation of Experiences. *Journal of Consumer Behaviour*, 24(2), 694–716. <http://doi.org/10.1002/cb.2440>
- Chakraborty, D., Patre, S., & Tiwari, D. (2023). Metaverse mingle: Discovering dating intentions in metaverse. *Journal of Retailing and Consumer Services*, 75, 103509. <http://doi.org/10.1016/j.jretconser.2023.103509>
- Chamola, V., Bansal, G., Das, T. K., Hassija, V., Sai, S., Wang, J., ... Niyato, D. (2024). Beyond Reality: The Pivotal Role of Generative AI in the Metaverse. *IEEE Internet of Things Magazine*, 7(4), 126–135. <http://doi.org/10.1109/IOTM.001.2300174>
- Chandel, H., Saikia, A., Chandel, S., & Meena, R. (2024). Metaverse Marketing: A New Frontier for Brand Engagement and Consumer Loyalty. *International Journal For Multidisciplinary Research*, 6(6). <http://doi.org/10.36948/ijfmr.2024.v06i06.33470>
- Chandra, S., Verma, S., Lim, W. M., Kumar, S., & Donthu, N. (2022). Personalization in personalized marketing: Trends and ways forward. *Psychology & Marketing*, 39(8), 1529–1562. <http://doi.org/10.1002/mar.21670>
- Chen, C., & Yao, M. Z. (2022). Strategic use of immersive media and narrative message in virtual marketing: Understanding the roles of telepresence and transportation. *Psychology & Marketing*, 39(3), 524–542. <http://doi.org/10.1002/mar.21630>
- Cheung, M. L., Leung, W. K. S., Chang, M. K., Wong, R. Y. M., & Tse, S. Y. (2024). Driving engagement in metaverse-mediated tourism environments: exploring the role of perceived realism. *Internet Research*. <http://doi.org/10.1108/INTR-06-2023-0496>
- Choi, M., Choi, Y., Nosrati, S., Hailu, T. B., & Kim, S. (Sam). (2023). Psychological dynamics in the metaverse: evaluating perceived values, attitude, and behavioral intention in metaverse events. *Journal of Travel & Tourism Marketing*, 40(7), 602–618. <http://doi.org/10.1080/10548408.2023.2276435>
- Cowan, K., & Ketron, S. (2019). A dual model of product involvement for effective virtual reality: The roles of imagination, co-creation, telepresence, and interactivity. *Journal of Business Research*, 100, 483–492. <http://doi.org/10.1016/j.jbusres.2018.10.063>
- de Brito Silva, M. J., de Oliveira Ramos Delfino, L., Alves Cerqueira, K., & de Oliveira Campos, P. (2022). Avatar marketing: a study on the engagement and authenticity of virtual influencers on Instagram. *Social Network Analysis and Mining*, 12(1), 130. <http://doi.org/10.1007/s13278-022-00966-w>
- de Regt, A., Plangger, K., & Barnes, S. J. (2021). Virtual reality marketing and customer advocacy: Transforming experiences from story-telling to story-doing. *Journal of Business Research*, 136, 513–522. <http://doi.org/10.1016/j.jbusres.2021.08.004>
- Dewi, E. P., Budilaksono, S., Suwartane, I. G. A., Nurina, N., Trikariastoto, T., Nurjaman, H. N., & Wijaya, A. (2024). Metaverse of Heritage Buildings in Jakarta's Old Town as a Media for Preservation and Historical Education Tourism. *Proceeding of the International Conference on Multidisciplinary Research for Sustainable Innovation*, 1, 549–559. <http://doi.org/10.31098/icmrsv1i.845>

- Dincelli, E., & Yayla, A. (2022). Immersive virtual reality in the age of the Metaverse: A hybrid-narrative review based on the technology affordance perspective. *The Journal of Strategic Information Systems*, 31(2), 101717. <http://doi.org/10.1016/j.jsis.2022.101717>
- Dolata, M., & Schwabe, G. (2023). What is the Metaverse and who seeks to define it? Mapping the site of social construction. *Journal of Information Technology*, 38(3), 239–266. <http://doi.org/10.1177/02683962231159927>
- Dwivedi, Y. K., & Hughes, L. (2023). In Search of a Head Start: Marketing Opportunities in the Metaverse. *NIM Marketing Intelligence Review*, 15(2), 18–23. <http://doi.org/10.2478/nimmir-2023-0012>
- Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., ... Wamba, S. F. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 66, 102542. <http://doi.org/10.1016/j.ijinfomgt.2022.102542>
- Dwivedi, Y. K., Hughes, L., Wang, Y., Alalwan, A. A., Ahn, S. J., Balakrishnan, J., ... others. (2023). Metaverse marketing: How the metaverse will shape the future of consumer research and practice. *Psychology & Marketing*, 40(4), 750–776.
- Foster, J. K., McLelland, M. A., & Wallace, L. K. (2022). Brand avatars: impact of social interaction on consumer–brand relationships. *Journal of Research in Interactive Marketing*, 16(2), 237–258. <http://doi.org/10.1108/JRIM-01-2020-0007>
- Giang Barrera, K., & Shah, D. (2023). Marketing in the Metaverse: Conceptual understanding, framework, and research agenda. *Journal of Business Research*, 155, 113420. <http://doi.org/10.1016/j.jbusres.2022.113420>
- Golf-Papez, M., Heller, J., Hilken, T., Chylinski, M., de Ruyter, K., Keeling, D. I., & Mahr, D. (2022). Embracing falsity through the metaverse: The case of synthetic customer experiences. *Business Horizons*, 65(6), 739–749. <http://doi.org/10.1016/j.bushor.2022.07.007>
- Gupta, M. (2023). Reviewing the Relationship Between Blockchain and NFT With World Famous NFT Market Places. *Scientific Journal of Metaverse and Blockchain Technologies*, 1(1), 1–8. <http://doi.org/10.36676/sjmbt.v1i1.01>
- Hadi, R., Melumad, S., & Park, E. S. (2024). The Metaverse: A new digital frontier for consumer behavior. *Journal of Consumer Psychology*, 34(1), 142–166. <http://doi.org/10.1002/jcpy.1356>
- Hollensen, S., Kotler, P., & Opresnik, M. O. (2023). Metaverse – the new marketing universe. *Journal of Business Strategy*, 44(3), 119–125. <http://doi.org/10.1108/JBS-01-2022-0014>
- Hosseinalibeiki, H., & Zaree, M. (2023). A blockchain based solution to improve loyalty program with NFT in agribusiness. *Journal of Smart Environments and Green Computing*, 3(4), 127–46. <http://doi.org/10.20517/jsegc.2023.09>
- Huang, T.-L. (2019). Psychological mechanisms of brand love and information technology identity in virtual retail environments. *Journal of Retailing and Consumer Services*, 47, 251–264. <http://doi.org/https://doi.org/10.1016/j.jretconser.2018.11.016>
- Javornik, A., Duffy, K., Rokka, J., Scholz, J., Nobbs, K., Motala, A., & Goldenberg, A. (2021). Strategic approaches to augmented reality deployment by luxury brands. *Journal of Business Research*, 136, 284–292. <http://doi.org/10.1016/j.jbusres.2021.07.040>
- Joy, A., Zhu, Y., Peña, C., & Brouard, M. (2022). Digital future of luxury brands: Metaverse, digital fashion, and non-fungible tokens. *Strategic Change*, 31(3), 337–343. <http://doi.org/10.1002/jsc.2502>
- Kalender, Y., & Guzmán, F. (2024). What Drives Consumers to Engage in Immersive Technologies? A Consumer Metaverse Engagement Motivation Model. *Psychology & Marketing*. <http://doi.org/10.1002/mar.22158>
- Kalyvaki, M., McIntosh, H., & Nash, K. (2023). Virtual selfhood and consumer behavior: Exploring avatar attachment and consumption patterns in Second Life's metaverse. *Computers in Human Behavior: Artificial Humans*, 1(2), 100016. <http://doi.org/10.1016/j.chbah.2023.100016>
- Kang, H. J., Shin, J., & Ponto, K. (2020). How 3D Virtual Reality Stores Can Shape Consumer Purchase Decisions: The Roles of Informativeness and Playfulness. *Journal of Interactive Marketing*, 49(1), 70–85. <http://doi.org/10.1016/j.intmar.2019.07.002>
- Kaur, H., Paruthi, M., Islam, J., & Hollebeek, L. D. (2020). The role of brand community identification



- and reward on consumer brand engagement and brand loyalty in virtual brand communities. *Telematics and Informatics*, 46, 101321. <http://doi.org/10.1016/j.tele.2019.101321>
- Kaur, J., Mogaji, E., Paliwal, M., Jha, S., Agarwal, S., & Mogaji, S. A. (2024). Consumer behavior in the metaverse. *Journal of Consumer Behaviour*, 23(4), 1720–1738. <http://doi.org/10.1002/cb.2298>
- Kohler, T., Fueller, J., Stieger, D., & Matzler, K. (2011). Avatar-based innovation: Consequences of the virtual co-creation experience. *Computers in Human Behavior*, 27(1), 160–168. <http://doi.org/10.1016/j.chb.2010.07.019>
- Koles, B., & Nagy, P. (2021). Digital object attachment. *Current Opinion in Psychology*, 39, 60–65. <http://doi.org/10.1016/j.copsyc.2020.07.017>
- Lee, C. T., & Hsieh, S. H. (2022). Can social media-based brand communities build brand relationships? Examining the effect of community engagement on brand love. *Behaviour & Information Technology*, 41(6), 1270–1285. <http://doi.org/10.1080/0144929X.2021.1872704>
- Lee, H. J., & Gu, H. H. (2022). Empirical Research on the Metaverse User Experience of Digital Natives. *Sustainability*, 14(22), 14747. <http://doi.org/10.3390/su142214747>
- Lee, L.-H., Braud, T., Zhou, P. Y., Wang, L., Xu, D., Lin, Z., ... Hui, P. (2024). All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda. *Foundations and Trends® in Human-Computer Interaction*, 18(2–3), 100–337. <http://doi.org/10.1561/11000000095>
- Lee, Y.-C., Nguyen, M. N., & Yang, Q. (2023). Factors Influencing Vietnamese Generation MZ's Adoption of Metaverse Platforms. *Sustainability*, 15(20), 14940. <http://doi.org/10.3390/su152014940>
- Lin, J., & Latoschik, M. E. (2022). Digital body, identity and privacy in social virtual reality: A systematic review. *Frontiers in Virtual Reality*, 3. <http://doi.org/10.3389/frvir.2022.974652>
- MacInnis, D. J., & Folkes, V. S. (2017). Humanizing brands: When brands seem to be like me, part of me, and in a relationship with me. *Journal of Consumer Psychology*, 27(3), 355–374. <http://doi.org/10.1016/j.jcps.2016.12.003>
- Mansoor, S., Rahman, S. M., & Bowden, J. L. (2024). Purchase spillovers from the metaverse to the real world: The roles of social presence, trialability, and customer experience. *Journal of Consumer Behaviour*, 23(5), 2501–2552. <http://doi.org/10.1002/cb.2353>
- Martin Louis. (2022). Transforming commerce: The role of NFTs in enhancing customer engagement and loyalty. *International Journal of Science and Research Archive*, 6(2), 345–360. <http://doi.org/10.30574/ijrsra.2022.6.2.0096>
- Mehra, P., & Kansra, P. (2024). Fostering Gratifying Customer Experiences Through the Art of Visual Content and Storytelling. In *Multidisciplinary Applications of Extended Reality for Human Experience* (pp. 401–423). IGI Global.
- Mogaji, E. (2023). Metaverse influence on transportation: A mission impossible? *Transportation Research Interdisciplinary Perspectives*, 22, 100954. <http://doi.org/10.1016/j.trip.2023.100954>
- Moon, J., & Han, S.-L. (2023). The Effect of Gamified Brand Experience using Metaverse on User's Purchase Intention and Brand Attitude: Moderating Effect of User-to-User Interactivity. *Journal of Channel and Retailing*, 28(4), 81–106. <http://doi.org/10.17657/jcr.2023.10.31.4>
- Morewedge, C. K., Monga, A., Palmatier, R. W., Shu, S. B., & Small, D. A. (2021). Evolution of Consumption: A Psychological Ownership Framework. *Journal of Marketing*, 85(1), 196–218. <http://doi.org/10.1177/0022242920957007>
- Moroz, O., Liashenko, K., & Kovalenko, M. (2024). Blockchain Technology as an Element of Digital Marketing in Web3. *Central Ukrainian Scientific Bulletin. Economic Sciences*, (11(44)), 156–165. [http://doi.org/10.32515/2663-1636.2024.11\(44\).156-165](http://doi.org/10.32515/2663-1636.2024.11(44).156-165)
- Mourtzis, D., Panopoulos, N., Angelopoulos, J., Wang, B., & Wang, L. (2022). Human centric platforms for personalized value creation in metaverse. *Journal of Manufacturing Systems*, 65, 653–659. <http://doi.org/10.1016/j.jmsy.2022.11.004>
- Murphy, M. C., & Dweck, C. S. (2016). Mindsets shape consumer behavior. *Journal of Consumer Psychology*, 26(1), 127–136. <http://doi.org/10.1016/j.jcps.2015.06.005>
- Mystakidis, S. (2022). Metaverse. *Encyclopedia*, 2(1), 486–497. <http://doi.org/10.3390/encyclopedia2010031>
- Nalbant, K. G., & Aydin, S. (2023). Development and Transformation in Digital Marketing and Branding with Artificial Intelligence and Digital Technologies Dynamics in the Metaverse

- Universe. *Journal of Metaverse*, 3(1), 9–18. <http://doi.org/10.57019/jmv.1148015>
- Nguyen, T., Quach, S., & Thaichon, P. (2022). The effect of AI quality on customer experience and brand relationship. *Journal of Consumer Behaviour*, 21(3), 481–493. <http://doi.org/10.1002/cb.1974>
- Nikhashemi, S. R., Knight, H. H., Nusair, K., & Liat, C. B. (2021). Augmented reality in smart retailing: A (n) (A) Symmetric Approach to continuous intention to use retail brands' mobile AR apps. *Journal of Retailing and Consumer Services*, 60, 102464. <http://doi.org/10.1016/j.jretconser.2021.102464>
- Nitin Liladhar Rane, Anand Achari, S. P. C. (2023). Enhancing Customer Loyalty Through Quality of Service: Effective Strategies to Improve Customer Satisfaction, Experience, Relationship, and Engagement. *International Research Journal of Modernization in Engineering Technology and Science*. <http://doi.org/10.56726/IRJMETS38104>
- Nobre, H., & Ferreira, A. (2017). Gamification as a platform for brand co-creation experiences. *Journal of Brand Management*, 24(4), 349–361. <http://doi.org/10.1057/s41262-017-0055-3>
- Patel, K. (2024). Revolutionizing Customer Experience: Integrating Blockchain with AR and VR in Retail. In *Augmenting Retail Reality, Part B: Blockchain, AR, VR, and AI* (pp. 1–22). Emerald Publishing Limited. <http://doi.org/10.1108/978-1-83608-708-320241003>
- Peng, Y., Cowan, K., & Lo Ribeiro, J. (2025). Into the virtual worlds: conceptualizing the consumer-avatar journey in virtual environments. *Psychology & Marketing*, 42(2), 374–394. <http://doi.org/10.1002/mar.22129>
- Prabakaran, N., Patrick, H. A., Rajan, P., & Sriram, V. P. (2024). The Metaverse: A Multidisciplinary Examination of Opportunities, Challenges, and a Comprehensive Theoretical Framework (pp. 1–13). [http://doi.org/10.1007/978-3-031-72418-3\\_1](http://doi.org/10.1007/978-3-031-72418-3_1)
- Radiah, R., Roth, D., Alt, F., & Abdelrahman, Y. (2023). The Influence of Avatar Personalization on Emotions in VR. *Multimodal Technologies and Interaction*, 7(4), 38. <http://doi.org/10.3390/mti7040038>
- Ramdhani, N., Sabil Hussein, A., & Rofiaty. (2024). The impact of gamification on loyalty mediated by consumer engagement and brand awareness. *International Journal of Research in Business and Social Science* (2147- 4478), 13(5), 96–107. <http://doi.org/10.20525/ijrbs.v13i5.3495>
- Rane, N., Choudhary, S., & Rane, J. (2023a). Metaverse for Enhancing Customer Loyalty: Effective Strategies to Improve Customer Relationship, Service, Engagement, Satisfaction, and Experience. *SSRN Electronic Journal*. <http://doi.org/10.2139/ssrn.4624197>
- Rane, N., Choudhary, S., & Rane, J. (2023b). Metaverse Marketing Strategies: Enhancing Customer Experience and Analysing Consumer Behaviour Through Leading-edge Metaverse Technologies, Platforms, and Models. *SSRN Electronic Journal*. <http://doi.org/10.2139/ssrn.4624199>
- Rauschnabel, P. A., Babin, B. J., tom Dieck, M. C., Krey, N., & Jung, T. (2022). What is augmented reality marketing? Its definition, complexity, and future. *Journal of Business Research*, 142, 1140–1150. <http://doi.org/10.1016/j.jbusres.2021.12.084>
- Shah, D., & Murthi, B. P. S. (2021). Marketing in a data-driven digital world: Implications for the role and scope of marketing. *Journal of Business Research*, 125, 772–779. <http://doi.org/10.1016/j.jbusres.2020.06.062>
- Shin, D. (2018). Empathy and embodied experience in virtual environment: To what extent can virtual reality stimulate empathy and embodied experience? *Computers in Human Behavior*, 78, 64–73. <http://doi.org/10.1016/j.chb.2017.09.012>
- Sung, E. (Christine), Kwon, O., & Sohn, K. (2023). NFT luxury brand marketing in the metaverse: Leveraging blockchain-certified NFTs to drive consumer behavior. *Psychology & Marketing*, 40(11), 2306–2325. <http://doi.org/10.1002/mar.21854>
- Takano, M., & Taka, F. (2022). Fancy avatar identification and behaviors in the virtual world: Preceding avatar customization and succeeding communication. *Computers in Human Behavior Reports*, 6, 100176. <http://doi.org/10.1016/j.chbr.2022.100176>
- Ting, D. H., Abbasi, A. Z., & Ahmed, S. (2021). Examining the mediating role of social interactivity between customer engagement and brand loyalty. *Asia Pacific Journal of Marketing and Logistics*, 33(5), 1139–1158. <http://doi.org/10.1108/APJML-10-2019-0576>
- Torres, E. N., Lugosi, P., Orlowski, M., & Ronzoni, G. (2018). Consumer-led experience customization:

- a socio-spatial approach. *Journal of Service Management*, 29(2), 206–229. <http://doi.org/10.1108/JOSM-06-2017-0135>
- Treiblmaier, H., & Petrozhitskaya, E. (2023). Is it time for marketing to reappraise B2C relationship management? The emergence of a new loyalty paradigm through blockchain technology. *Journal of Business Research*, 159, 113725. <http://doi.org/10.1016/j.jbusres.2023.113725>
- Vinitha, V. U., Kumar, D. S., & Purani, K. (2021). Biomorphic visual identity of a brand and its effects: a holistic perspective. *Journal of Brand Management*, 28(3), 272–290. <http://doi.org/10.1057/s41262-020-00222-6>
- Wang, C. L. (2021). New frontiers and future directions in interactive marketing: Inaugural Editorial. *Journal of Research in Interactive Marketing*, 15(1), 1–9. <http://doi.org/10.1108/JRIM-03-2021-270>
- Wang, Y., Mo, D. Y., & Ho, G. T. S. (2023). How Choice Fatigue Affects Consumer Decision Making in Online Shopping. In 2023 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM) (pp. 0128–0132). IEEE. <http://doi.org/10.1109/IEEM58616.2023.10406866>
- Willems, K., Brengman, M., & Van Kerrebroeck, H. (2019). The impact of representation media on customer engagement in tourism marketing among millennials. *European Journal of Marketing*, 53(9), 1988–2017. <http://doi.org/10.1108/EJM-10-2017-0793>
- Wilson, K. B., Karg, A., & Ghaderi, H. (2022). Prospecting non-fungible tokens in the digital economy: Stakeholders and ecosystem, risk and opportunity. *Business Horizons*, 65(5), 657–670. <http://doi.org/10.1016/j.bushor.2021.10.007>
- Wongkitrungrueng, A., & Suprawan, L. (2024). Metaverse Meets Branding: Examining Consumer Responses to Immersive Brand Experiences. *International Journal of Human-Computer Interaction*, 40(11), 2905–2924. <http://doi.org/10.1080/10447318.2023.2175162>
- Xie, Q., Muralidharan, S., Edwards, S. M., & La Ferle, C. (2023). Unlocking the Power of Non-Fungible Token (NFT) Marketing: How NFT Perceptions Foster Brand Loyalty and Purchase Intention among Millennials and Gen-Z. *Journal of Interactive Advertising*, 23(4), 356–373. <http://doi.org/10.1080/15252019.2023.2258875>
- Xu, C., Zhong, R., Li, C., & Yan, X. (2023). From Fiction to Reality: Harnessing the Power of Imaginative Narratives to Shape the Future of the Metaverse. *Journal of Metaverse*, 3(2), 108–120. <http://doi.org/10.57019/jmv.1277525>
- Yoon, N., Choi, D., & Lee, H. K. (2024). Exploring Consumer Participation in Brand Metaverse Communities, Focusing on the Metaverse Features–Fantasy Experiences and Self-Expansion. *Journal of Consumer Behaviour*. <http://doi.org/10.1002/cb.2420>
- Zhang, C., Ma, S., Li, S., & Singh, A. (2021). Effects of customer engagement behaviors on action loyalty: moderating roles of service failure and customization. *International Journal of Contemporary Hospitality Management*, 33(1), 286–304. <http://doi.org/10.1108/IJCHM-08-2019-0740>