

Metaverse and the Future of Fashion: A Comparative Analysis of Fast-Fashion and Luxury Fashion Brands

Merve Coşkun¹

Received/ Başvuru: 27.03.2025

Accepted/ Kabul: 08.08.2025

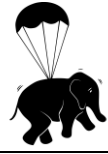
Published/ Yayın: 11.10.2025

Abstract

The metaverse is rapidly emerging as a transformative digital ecosystem, reshaping how brands interact with consumers through immersive, interactive experiences. In the fashion industry, this shift has significant implications for both fast-fashion and luxury brands as they navigate new virtual retail environments. This study explores how fashion retailers, particularly fast-fashion and luxury brands, are leveraging the metaverse to transform consumer experiences, redefine brand engagement, and build digital brand identities. Through a comprehensive literature review, the study examines the technological underpinnings of the metaverse, such as virtual reality, artificial intelligence, blockchain, and NFTs, and analyzes how these tools are being strategically adopted in fashion retail. Key applications, including gamification, virtual shopping environments, and NFT-based digital assets, are assessed using real-life examples from global and Turkish fashion brands like H&M, Gucci, Kiğılı, and Beymen. The research highlights that while fast-fashion brands prioritize accessibility and gamified experiences on platforms like Roblox, luxury brands focus on exclusivity, digital scarcity, and immersive storytelling. The study also presents a comparative analysis of the drivers and challenges each segment faces in adopting metaverse strategies. It concludes by proposing future research directions focused on consumer acceptance, the psychological impact of virtual engagement, and the evolving role of virtual influencers. This study contributes to both academic literature and managerial practice by positioning the metaverse as a strategic platform for innovation in fashion retailing, offering new pathways for brand differentiation, sustainability, and consumer interaction.

Keywords: metaverse retailing, fast-fashion, luxury fashion, immersive shopping, digital transformation

¹ Assist. Prof., Izmir Bakircay University, Türkiye, merve.coskun@bakircay.edu.tr, Orcid: 0000-0003-0618-8238

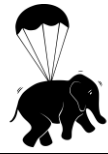


Metaverse ve Modanın Geleceği: Hızlı Moda ve Lüks Moda Markalarının Karşılaştırmalı Analizi

Öz

Metaverse, markaların tüketicilerle etkileşimli ve sürükleyici deneyimler aracılığıyla iletişim kurma biçimini yeniden şekillendiren dönüştürücü bir dijital ekosistem olarak hızla ortaya çıkmaktadır. Moda endüstrisinde bu değişim, yeni sanal perakende ortamlarında yol alan hem hızlı moda hem de lüks moda markaları için önemli sonuçlar doğurmaktadır. Bu çalışma, özellikle hızlı moda ve lüks markalar olmak üzere moda perakendecilerinin tüketici deneyimlerini dönüştürmek, marka etkileşimini yeniden tanımlamak ve dijital marka kimlikleri oluşturmak için metaverse'ü nasıl kullandıklarını araştırmaktadır. Kapsamlı bir literatür taraması yoluyla, sanal gerçeklik, yapay zekâ, blok zinciri ve NFT'ler gibi metaverse'ün teknolojik temelleri incelenmiş ve bu araçların moda perakendeciliğinde stratejik olarak nasıl benimsendiği analiz edilmiştir. Oyunlaştırma, sanal alışveriş ortamları ve NFT tabanlı dijital varlıklar gibi kilit uygulamalar, H&M, Gucci, Kiğılı ve Beymen gibi küresel ve Türk moda markalarından gerçek hayat örnekleriyle değerlendirilmiştir. Araştırma, hızlı moda markalarının Roblox gibi platformlarda erişilebilirlik ve oyunlaştırılmış deneyimlere öncelik verirken, lüks moda markalarının ise ayrıcalık, dijital kıtlık ve etkileyici hikâye anlatımına odaklandığını ortaya koymaktadır. Çalışma ayrıca her iki segmentin metaverse stratejilerini benimserken karşılaştığı itici güçleri ve zorlukları karşılaştırmalı olarak analiz etmektedir. Araştırma bulgularına göre tüketici kabulü, sanal etkileşimin psikolojik etkisi ve sanal influencer'ların değişen rolü üzerine odaklanan gelecekteki araştırma yönelimleri önerilmiştir. Bu çalışma, metaverse'ü moda perakendeciliğinde yenilik için stratejik bir platform olarak konumlandırarak, akademik literatüre ve yönetsel uygulamalara katkı sağlamakta; marka farklılaşması, sürdürülebilirlik ve tüketici etkileşimi için yeni yollar sunmaktadır.

Anahtar Kelimeler: metaverse perakendeciliği, hızlı moda, lüks moda, sürükleyici alışveriş, dijital dönüşüm



1. INTRODUCTION

As the twenty-first century progresses, our world is being drastically altered by technological advances. Digitalization has profoundly changed many facets of daily life, such as boundaries within organizations, business activities, and education (Demirci et al., 2024). The Metaverse, an immersive and interactive digital realm where the lines separating real-world and virtual reality are blurred, is one such revolutionary invention (Al-Sharafi et al., 2024). The phrase "metaverse," which is a composite of the words "meta," which means "transcendence," and "universe," was first used in Neal Stevenson's science fiction book *Snow Crash* in 1992 to describe a 3D virtual world with lifelike avatars (Park and Lim, 2023). Since Mark Zuckerberg revealed that his firm would be rebranding from Facebook to Meta, the idea of metaverse has gained a lot of attention in recent years as a means of characterizing a network of virtual worlds that incorporate aspects of both the digital and physical environments (Kim, 2021).

An increasing body of scholarly research has started to examine the different facets of the immersive metaverse (Dwivedi et al., 2022; Koohang et al., 2023; Mogaji et al., 2023). Additionally, as a new marketing platform, brands have begun to investigate whether and how to enter this virtual environment in order to interact with their consumers and capitalize on its potential (Park and Lim, 2023).

The term "Metaverse" refers to a digital environment that integrates elements of social media, online gaming, augmented reality (AR), virtual reality (VR), and cryptocurrency to enable virtual interaction between users (Belk et al., 2022). Metaverse describes a collective, long-lasting network of shared virtual spaces that allow users to communicate with each other in a way that is similar to how they would in real life (Park and Lim, 2023). Today, this new technological innovation is reshaping various industries such as gaming, education, healthcare, tourism and retail by introducing immersive, interactive, and innovative experiences. The metaverse could be worth up to \$5 trillion by 2030, according to a recent McKinsey study. This could be one of the largest growth prospects for several industries in the ensuing ten years, where numerous businesses have already experimented with innovative branding techniques utilizing the metaverse (McKinsey, 2022).

Since metaverse has become more popular in recent years, the retail industry has demonstrated interest in utilizing it to market and selling products (Alayli, 2023). The metaverse retail market is expected to surpass \$800 billion by 2024. As a result, retailers must explore how to tailor their competitive approaches to the metaverse. For the retail industry, the metaverse is viewed as a route through which brands can conduct promotional activities while saving money and time and many retailer brands now focus their marketing efforts on the metaverse. Especially, fashion retailers are among those that have realized the immense potential of the metaverse in their business operations (Kolk, 2023). Younger consumers are attached to their digital displays for almost eight hours every day in the modern world, forcing fashion firms to embrace new technologies such as metaverse (Williams, 2021).



Fashion brands leverage the metaverse as a dynamic and evolving platform to blend creativity, technology, and customer engagement. H&M is the first fashion retailer to open virtual store in the metaverse. Nike, Zara, Fendi, Prada, Louis Vuitton, United Colors of Benetton, Gucci, and Balenciaga are a few of the well-known fashion labels that have already made their way into the metaverse through games, virtual stores, fashion shows, and digital events (Dwivedi et al., 2022; Profumo et al., 2024). Several Turkish brands have also started exploring metaverse platforms as part of their digital transformation and consumer engagement strategies. For instance, Sagra (the producer of Sarelle and Tadelles) became the first Turkish chocolate brand to enter the metaverse by launching a virtual chocolate factory. In the fashion retail industry, LC Waikiki and FLO initiated pilot projects that included NFT fashion collections and virtual showrooms, aiming to engage Gen Z consumers through Web3 technologies (Kara, 2022; Önder, 2022).

The aim of this study is to make an understanding of metaverse concept and its importance for fashion retailers, especially how fast-fashion and luxury fashion brands benefit this immersive technology differently to create outstanding consumer experiences. Despite the growing interest in the metaverse across various industries, academic research on its strategic applications in fashion retailing remains limited and fragmented. Most existing studies focus broadly on digital transformation or examine isolated metaverse tools without offering an integrated understanding of how fashion brands are adapting holistically. Moreover, little attention has been paid to the comparative strategies of fast-fashion and luxury fashion segments, which differ significantly in their brand positioning, consumer engagement, and technological adoption (Kniazeva et al., 2024). This study addresses this gap by providing a structured literature-based analysis of how fast-fashion and luxury brands uniquely navigate the metaverse. By contrasting their motivations, challenges, and immersive applications, the research offers novel theoretical insights into branding, consumer experience, and digital innovation, while also offering practical guidance for fashion managers seeking to implement metaverse-based strategies tailored to their market segment.

2. LITERATURE REVIEW

2.1. Metaverse: Definition, Key Features and Technologies

The term "metaverse", gained popularity in 2020, refers to a collective virtual shared space, merging physical and digital realities, where users interact through digital representations of themselves known as avatars in immersive environments through advanced technologies (Dwivedi et al., 2022). The Metaverse is an open, decentralized, autonomous ecosystem that revolves around interactions and content created by users (Song et al., 2023). The COVID-19 pandemic served as a critical catalyst for the acceleration of digital transformation and significantly contributed to the emergence of the metaverse as a viable and strategic concept. During the pandemic, widespread lockdowns and physical distancing measures necessitated a shift toward virtual solutions across sectors—ranging from remote work and online education



to digital commerce and entertainment. Consequently, people and institutions relied more and more on immersive technologies like 3D collaboration tools, augmented reality (AR), and virtual reality (VR), which together created the groundwork for metaverse settings (Dwivedi et al., 2022; Toraman and Geçit, 2023).

Artificial intelligence (AI), virtual reality (VR), augmented reality (AR), mixed reality, extended reality (XR), digital twin, blockchain technology, machine learning and the Internet of Things are some of the technological building blocks that make up the metaverse's fundamental design (Periyasami and Periyasamy, 2022; Profumo et al., 2024). These technologies have made it possible to build the Metaverse environment by offering technical assistance and opportunities for its construction within various fields and industries. These technologies' general functions can be outlined as follows (Yang et al., 2022):

Artificial Intelligence (AI) facilitates intelligent virtual agents in the metaverse, improves user interactions, and automates processes. Artificial Intelligence (AI) plays a pivotal role in enhancing the metaverse experiences of fashion retailers by enabling personalized, efficient, and interactive virtual environments. AI-powered virtual try-on technologies allow customers to visualize how garments or accessories would look on them without physical interaction with the help of virtual showrooms (Singh, 2024).

Interactivity technologies are essential to making the metaverse immersive, being more than only virtual by incorporating a perspective of extended reality (Koohang et al., 2023). Extended reality in the context of the metaverse refers to the umbrella term encompassing immersive technologies such as Virtual Reality (VR)- fully virtual environments, Augmented Reality (AR)- enhanced real-world views with digital overlays, and Mixed Reality (MR)- dynamic combinations of AR and VR (Dwivedi et al., 2023). Through technological devices like virtual reality headsets and tactile gloves, they enable users to visually experience the metaverse more than conventional gadgets like laptops and smartphones. There are plenty of different applications of the extended reality in metaverse, for example AR-powered virtual try-ons and MR-enhanced in-store navigation are used in retail industry. AR-enabled virtual try-ons bridge the gap between online and in-store buying by enabling customers to see items, like apparel or accessories, on themselves without having to engage with the object (Patnaik et al., 2024).

Digital twins are utilized in the metaverse to produce incredibly realistic, dynamic, and interactive digital replicas of real-world objects, facilitating data sharing and analysis in real time. They can be used by fashion retailers to create and test new product displays and store layouts. By designing more efficient and enticing store layouts, digital twins can assist retailers in a metaverse environment to improve the shopping experience and boosting sales outs. (Lumbroso, 2022; Tam and Lung, 2024). For example, Tommy Hilfiger developed a digital twin of its physical showroom, allowing wholesale buyers to interact with garments virtually. Also, Nike's Swoosh platform includes virtual sneaker twins—digital versions of physical Nike shoes that can be worn in metaverse games and AR (Geniomode, 2023).



Blockchain serves as the underlying infrastructure for managing digital assets in the metaverse. It ensures transparency, security, and decentralization in transactions, allowing for the seamless transfer and verification of asset ownership. The digitalization of assets as one of the key features of metaverse, refers to the process of converting physical or traditional assets into digital formats or representations that can be managed, traded, and utilized within virtual environments (Truong et al., 2023).

Machine Learning (ML) is critical to the metaverse's development and enhancement, contributing to areas such as user experience, security, and applications for retailers. By delivering recommendations and personalized information based on user behavior and preferences, machine learning algorithms increase user engagement, especially for fashion retailers (Sayem, 2022).

The Internet of Things (IoT) plays a critical role in the metaverse by connecting physical devices and systems to the virtual world, enabling real-time data exchange and interaction between the two. The Internet of Things (IoT) can be utilized in the Metaverse which converts real-time IoT data from the physical world into a digital reality in the virtual world. The IoT can also enhance online shopping experiences in virtual fitting rooms, where users' body movements are tracked by IoT sensors. (Li et al., 2022).

These foundational technologies have enabled new retail models that extend beyond traditional commerce. In the following section, we examine how these innovations are reshaping the structure and logic of retail through the lens of metaverse retailing.

2.2. Metaverse Retailing

The term "metaverse retailing" refers to online retail operations that take place in a virtual reality setting, enabling full trade and experiencing processes (Dwivedi et al., 2022). The evolution of retailing reflects a continuous adaptation to technological advancements. The retail industry has transitioned from brick-and-mortar to internet buying in recent decades, and now the metaverse has emerged (Tam and Lung, 2024). Figure 1 shows each different phases from traditional retailing- product oriented to place/location-oriented phase as e-retailing and then to user/experience-oriented phase as metaverse retailing. Each stage in this progression highlights a significant transformation in how retailers engage with consumers and deliver value.

Traditional retailing focuses on physical stores where consumers deal with merchandise and salespeople in person. By emphasizing face-to-face interactions, this strategy promotes interpersonal relationships and offers quick access to products. This stage emphasizes location-based strategies, visual merchandising, and a tactile shopping experience. Traditional retail was upended by the internet's introduction in the 1990s, which led to the emergence of e-commerce sites like Amazon and eBay. Retailers were able to access a worldwide audience through these channels, providing ease and a wider range of products. The introduction of social media sites like Facebook in the middle of the 2000s encouraged more people to use the Internet (Ali and



[Khan, 2023](#)). E-commerce has brought data-driven marketing techniques and customized product recommendations. This stage signals a dramatic change in customer behavior since internet buying provides price transparency and accessibility. Then, retailers adopted an omnichannel approach to integrate physical and digital shopping experiences seamlessly. This strategy emphasizes creating a unified customer journey across online stores, mobile apps, and physical outlets. Real-time inventory updates, mobile payments, and click-and-collect services are notable examples of this stage, which connects traditional and online retailing ([Verhoef et al., 2015](#)). Then companies began to prioritize engagement over transactions by offering events, pop-up stores, and immersive brand experiences, with the rise of experiential retailing. This phase emphasized building emotional connections with consumers, leveraging storytelling and interactive displays, paving the way for metaverse retailing ([Dwivedi et al., 2022](#); [Dwivedi et al., 2023](#); [Eggenschwiler et al., 2024](#)).

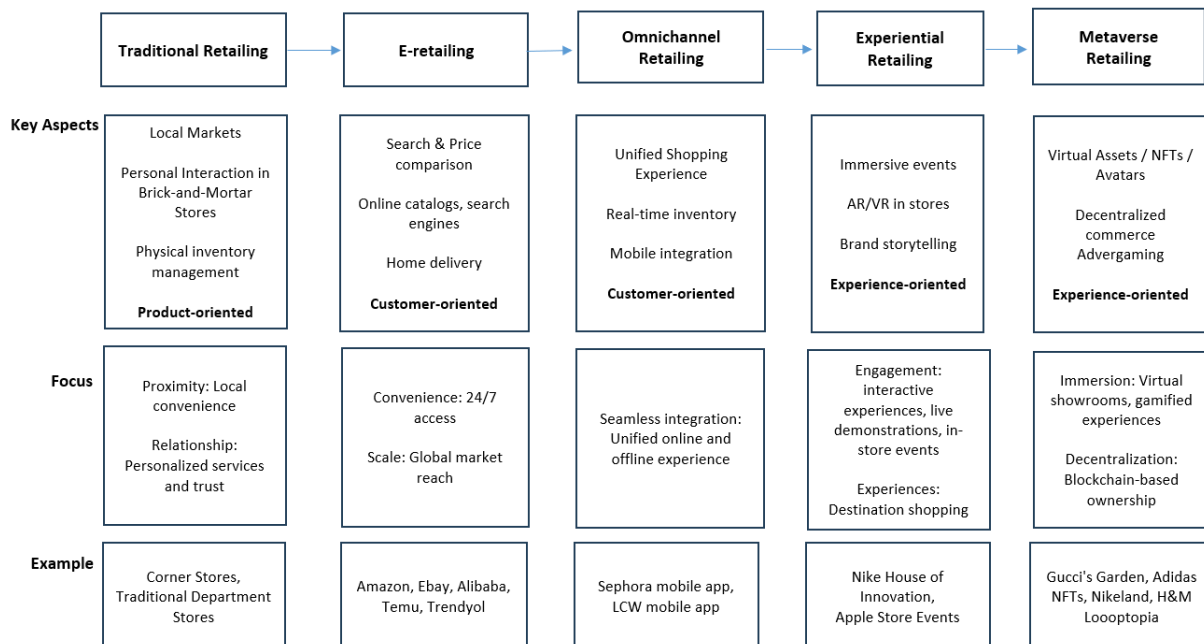
As retail evolves toward immersive and experience-driven models, fashion brands stand at the forefront of this transformation. The next section explores how the fashion industry, with its emphasis on innovation and identity expression, is adapting to and leveraging the metaverse.

2.3. Metaverse in the Fashion Industry

Recently, metaverse platforms enable fashion brands to market digital goods and provide unique brand experiences ([Park and Lim, 2023](#)). But the digitalization of the fashion industry began prior to the metaverse era and developed through several phases. The fashion industry digitalized through e-commerce platforms in the mid-1990s, with pioneers like Amazon (initially a book retailer) and Zappos (online shoe sales). Then, from the beginning of 2005, social media platforms such as Facebook, Instagram, and Pinterest became the main drivers of digital fashion to showcase collections, interact with consumers, and gather insights. According to Bourlakis et al. ([2009](#)), the use of the metaverse in digital marketing and fashion retail goes back to the early 2010s. Early versions of the metaverse were virtual worlds that were accessible online, usually in the form of massively multiplayer online role-playing games ([Park and Lim, 2023](#)). Second Life, launched by Linden Lab in 2003, as a pioneering online virtual world that allows users to create avatars, interact with others, and build and trade virtual property is an early example of a metaverse platform, providing insights on virtual economies, social interactions, and user-generated content ([Demirci et al., 2024](#)).



Figure 1. Evolution of retailing: From traditional to Metaverse



Several well-known fashion firms such as Adidas, Calvin Klein, Lacoste have used Second Life to interact with customers and promote their goods prior to the current wave of metaverse platforms. For example, American Apparel, US-based fast-fashion retailer, opened a Second Life virtual store where customers could buy digital versions of their clothes in 2006. Also Reebok's Second Life virtual store, which let users design personalized Reebok shoes for both their avatars and their real-life selves, was one of the more popular examples. In its first ten weeks of operation, the company claimed to have distributed over 27,000 pairs of digital shoes (Kuntze et al., 2013).

Then, during the COVID-19 pandemic, retailers have started to adopt AI and big data analytics to understand customer preferences and optimize inventory management. After the COVID-19 pandemic, brands transitioned to digital fashion shows and livestreamed events. The metaverse can enhance current e-commerce procedures for fashion brands and produce distinctive consumer experiences because of the range of applications and advantages in the buying experience (Joy et al., 2022).

This historical overview demonstrates the evolving digital landscape of the fashion industry and sets the stage for examining how brands engage with metaverse technologies. To systematically explore the commonalities and differences in metaverse strategies between fast fashion and luxury brands—and to identify theoretical and managerial insights—the following section presents the scoping literature review employed in this study.



3. METHODOLOGY

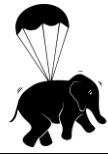
This study adopts a scoping literature review methodology to investigate how fast-fashion and luxury fashion brands are adopting metaverse technologies. Given the novelty and rapidly evolving nature of the metaverse, a scoping review was deemed appropriate as it allows for mapping existing knowledge, identifying emerging themes, and integrating both academic and industry-based insights ([Arksey and O'Malley, 2005](#); [Pham et al., 2014](#)). Unlike systematic or bibliometric reviews, which typically focus on evaluating the quality or citation patterns of studies, the scoping approach provides the flexibility to explore diverse and interdisciplinary sources relevant to a new and under-theorized domain. Since the topic of metaverse retailing research for fashion brands is still in its early stages, the study is predicated on a thorough examination of the pertinent academic literature and articles of industry experts on fast-fashion and luxury fashion brands applications, opportunities and challenges.

The data collection process involved identifying both academic and industry-based secondary sources mostly published between 2020 and 2025. The literature search was conducted through databases such as Scopus, Google Scholar, and Web of Science, as well as reputable industry platforms including Vogue Business, Business of Fashion, Forbes, Deloitte, and McKinsey. This methodology not only strengthens the academic rigor of the study but also bridges theoretical perspectives with practical insights in the evolving domain of digital fashion retailing. Keywords included "metaverse retailing," "fast-fashion in metaverse," "luxury fashion in metaverse," and "virtual fashion retailing".

Furthermore, this study deliberately distinguishes between fast-fashion and luxury fashion brands in its analysis. This segmentation is essential due to the fundamentally different strategic, operational, and consumer engagement models that characterize each category. While both segments have shown interest in the metaverse, their motivations and implementations significantly diverge ([Kniazeva et al., 2024](#)). By comparing these two contrasting category, the study gives a more nuanced understanding of how the metaverse is transforming fashion business in various market situations and customer expectations.

4. FINDINGS

To better address the research questions posed in this study—namely, how fast-fashion and luxury fashion brands are adopting metaverse technologies, and what opportunities and challenges they face—this findings section is organized around key thematic areas that emerged from the literature. These include (1) the general adoption of the metaverse in fashion retailing, (2) the motivational drivers behind brand adoption, (3) the technological and strategic challenges encountered, and (4) the specific applications such as gamification, NFTs, and virtual shopping experiences. This structure enables a comparative analysis between fast-fashion and luxury fashion segments, aligning closely with the study's aim to highlight the strategic divergence and convergence in their metaverse engagements. Real-life brand cases



such as Gucci, Nike, Zara, Balenciaga, as well as Turkish brands like Beymen and Kigili, were used to compare the strategic orientation of fast-fashion versus luxury fashion segments.

4.1. Metaverse Adoption of Fashion Retailers

Metaverse has long been on the agenda of marketing researchers and presents a compelling value proposition. After examining recent literature on fashion retailing in metaverse, it is anticipated that the metaverse will drastically alter how customers engage with the digital world and transform the retail industry (Hu et al., 2025; Yoo et al., 2023). According to Al-Adwan et al. (2025), it is not merely an advancement in e-commerce but rather a radical change in the way goods, services, and experiences are provided. Recent research pointed out that the Metaverse has the potential to digitally modify various parts of our lives, including how we buy, shop and consume fashion (Patruti et al., 2023).

The metaverse presents opportunities and obstacles for both fast fashion and luxury brands. However, their strategies, motivations, and challenges differ based on their distinct business models, target audiences, and value propositions (Kniazeva et al., 2024). The current study tries to make a comparative analysis of the driving and challenging forces behind fashion brands' entry into the metaverse environment.

4.2. Motivations: Driving Forces of Fast Fashion and Luxury Brands Entering the Metaverse

Recent research has identified potential key motivations and opportunities for fashion brands in conjunction with the metaverse. Both luxury and fast fashion firms use metaverse retailing to develop new revenue streams through digital collectibles, virtual fashion, and NFTs (Donvito et al., 2024).

Similarities: The goal of both luxury and fast-fashion firms is to increase brand engagement through the development of involving, interactive virtual world experiences. Especially, they may want to reach Millennials and Gen Z, who are used to avatars, gaming, and digital shopping. Young, digital-native consumers spend time in gaming environments, making them key spaces for fashion brands. In order to appeal to Generation Z, Zara has created six looks that work with a variety of games and apps on the "Ready Player Me" platform. Louis Vuitton created a metaverse game, "Louis the Game," offering collectible NFTs and digital fashion items (Alonso, 2022; Kniazeva et al., 2024).

Also, both categories of fashion brands are partnered with digital influencers and virtual avatars to engage with younger audiences. They collaborate with micro-influencers and content creators to make fashion trends more accessible (Eggenschwiler et al., 2024). Gucci and Dior work with high-profile celebrities, mega-influencers, and fashion bloggers to maintain exclusivity. Dior's global ambassador and K-pop star, Jisoo promotes digital luxury through social media activations, virtual campaigns, and NFT collaborations (Business Wire, 2022). Fast-fashion brands like Forever 21 are increasingly leveraging virtual influencers and digital platforms to engage with Gen Z consumers. For instance, Forever 21 collaborated with Barbie



to launch a limited-edition collection available both in physical stores and on the metaverse platform Roblox ([Walk-Morris, 2022](#)).

Fast and luxury fashion companies perceive the metaverse as a sustainable tool that reduces waste, excess manufacturing, and carbon emissions ([Yan, 2022](#)). Virtual clothing enables brands to test ideas before mass manufacturing, hence eliminating extra inventory. Balenciaga uses 3D digital fashion design to test silhouettes, textures, and patterns before producing real garments. H&M launched "H&M Looop Island" on Roblox, a virtual space where players can create and try on digital clothing. The brand tests designs digitally before manufacturing them in real life, reducing physical waste ([Kniazeva et al., 2024](#); [Sayem, 2022](#)).

Differences: Luxury and fast-fashion brands adopt distinct metaverse strategies, reflecting their unique brand identities, target audiences, and market positions ([Noris et al., 2021](#)). To reach a broad audience, fast fashion firms emphasize price, accessibility, trendiness, and gaming collaborations. Luxury brands prioritize exclusivity, digital scarcity, NFT authentication, and high-end virtual couture in order to maintain their status and high brand value. Luxury fashion brands invest in advanced technologies like NFTs to offer unique digital assets, reinforcing their commitment to innovation and exclusivity. These digital collectibles often serve as status symbols within virtual communities. For example, Gucci released limited edition virtual sneakers on the Roblox platform, which can only be worn in the digital world, but their scarcity made them highly desirable among virtual users ([Hahn, 2021](#)). On the other hand, fast-fashion brands experiment with digital fashion shows and virtual storefronts in the metaverse with the goal of improving customer engagement and expediting the purchase experience. To appeal to younger audiences, their strategy frequently incorporates interactive features and gamification ([Patruti et al., 2023](#)).

Both fast and luxury fashion companies target young and tech-savvy consumers, but fast fashion brands target mostly Gen Z, who are highly active in gaming and social media and on the other hand, luxury brands mostly target high-net-worth Gen Z individuals and digital collectors who are interested in exclusivity and status. Brands like Zara, Forever 21, and H&M create virtual stores and experiences on Roblox and Zepeto, where Gen Z users already interact. With the hope of increasing sales of actual physical products, luxury brand owners are drawn to selling virtual goods through the metaverse in order to establish their brand value with a youthful, tech-savvy consumer base ([Um et al., 2025](#)).

4.3. Challenges: Difficulties of Fast Fashion and Luxury Brands Entering the Metaverse

As both fast fashion and luxury brands venture into the metaverse, they encounter a blend of shared and distinct challenges. These obstacles arise from technological adaptation and restrictions, customer acceptance barriers, concerns about sustainability, data security and privacy ([Tavman, 2024](#)). They also face unique challenges aligned with their distinct business models and brand identities as brand positioning issues ([Chrimes and Boardman, 2023](#)).



Similarities: Both luxury and fast-fashion brands must invest in digital infrastructure, including 3D modeling, augmented reality (AR), virtual reality (VR), and blockchain technologies to create immersive and secure virtual shopping experiences (Dwivedi et al., 2022). Creating virtual stores, digital garments, and immersive experiences requires substantial investment in VR/AR, blockchain, AI, and gaming technology. Fashion firms must make sure that they are familiar with the software and that their staff members have the digital skills necessary to successfully navigate this digital environment before attempting to enter the metaverse to avoid high financial risks (Koochang et al., 2023).

Consumer adoption is another challenge that fashion brands face in creating consumer willingness to engage in virtual spaces. While Gen Z is more inclined toward digital fashion, older consumers may struggle with adopting metaverse shopping experiences. Customers' willingness to interact in virtual environments is essential to the success of metaverse projects. It is difficult for brands to inform their consumers about the metaverse and give them strong incentives to join (Park and Lim, 2023).

When brands and customers embrace the metaverse, data and privacy concerns will remain at the top of their minds. Regardless of retailer type, fashion brands must set up strong digital rights management systems since the digital sphere makes it difficult to protect designs and products from illegal duplication (SanMiguel et al., 2024). Also, due to the significant energy consumption of metaverse technologies, both luxury and fast-fashion firms that use blockchain for digital assets are under scrutiny, raising questions about their potential effects on the environment (Chrimes and Bordman, 2023).

Differences: In terms of technological infrastructure investment, luxury and fast-fashion brands have different challenges based on their business models. Fast fashion companies may find it difficult to justify the significant expenditures necessary for metaverse integration given their low-cost, high-volume business model. On the other hand, luxury firms must make sure that their digital offers match the superior craftsmanship and uniqueness of their physical products, even if they frequently have greater financial resources. This could result in even higher development expenses (Hu et al., 2025).

The difficulty for luxury fashion firms is to strike a careful balance between meeting the increasing needs of their customer base and maintaining their exclusivity. In contrast, fast fashion companies are using internet platforms more to reach new customers and cut expenses related to physical stores. Fast fashion companies' primary objective is to make revenue by quickly adapting to the constantly shifting tastes of fashion-conscious consumers (Kniazeva et al., 2024).

Luxury and fast-fashion companies face distinctive sustainability challenges as they expand into the metaverse. Implementing the precise craftsmanship used by luxury brands in the digital environment necessitates tremendous resources and creativity, which may lead to greater energy consumption and environmental effect. While virtual clothing prevents physical waste,



the marketing of synthetic materials in digital designs by fast-fashion companies may unintentionally favor the continued use of environmentally toxic substances in physical manufacturing (Blazquez, 2024).

4.4. Metaverse Applications in Fashion Retailing: Real Life Examples

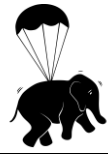
Recent research has pointed out that there are three main applications of metaverse for fashion retailers as Gamification, Non-Fungible-Tokens (NFTs), and Virtual Shopping (Mogaji et al., 2023; Park and Lim, 2023; SanMiguel et al., 2024).

4.4.1. Gamification: Engaging Consumers in Virtual Worlds

The metaverse originated from gaming, and due to the variety of activities they provide, games remain the most popular digital place in this regard. Online gaming platforms are among the most flexible and convenient methods to access Metaverse because they allow users to do more than just play; they also allow them to shop, interact, make money, and even attend events (Shahriar, 2023). Gamification in metaverse retailing refers to the integration of game-design elements into virtual retail environments to enhance consumer engagement, satisfaction, and purchasing behavior. Game and virtual worlds platforms play a crucial role in fashion businesses' metaverse strategy since they enable consumers to create avatars and express themselves through virtual apparel or 'skins'. Giving customers the option to personalize their avatars encourages a feeling of identification and a sense of belonging in the virtual world. Increased pleasure and a closer bond with the brand can result from this customization. Thus, several companies have made insertions into well-known and popular video games (Periyasami and Periyasamy, 2022). To make the buying experience more interesting, fashion retailers also use game-like elements including challenges, incentives, and interactive storytelling. To improve exploration and engagement, virtual treasure hunts or quests, for instance, can guide shoppers to products within a metaverse store (Al-Adwan et al., 2025).

Both luxury and fast-fashion brands are leveraging various gaming platforms within the metaverse to engage consumers. One of the most common metaverse strategies for many fashion companies has been working with already-existing game platforms, such as Roblox and Zepeto (Bain, 2022). Apart from gaming platforms, fashion brands have also looked into creating branded virtual worlds which are digital platforms like The Sandbox, Decentraland, and Second Life where users build their own avatars to play and interact with one another (Park and Lim, 2023). Even though both types of fashion brands use every gaming platforms, luxury fashion brands focus on exclusivity and high-end storytelling in the metaverse, and they mostly use blockchain-based platforms and high-graphic immersive games such as Sandbox and Fortnite. On the other hand, fast-fashion brands prioritize high-engagement and customization-friendly platforms like Roblox and Zepeto, appealing to a broader audience (Bakshi, 2022).

As a luxury brand, Gucci introduced Gucci Garden, an immersive virtual fashion space in Roblox where players could purchase and wear limited-edition digital Gucci items. The Gucci



Garden virtual tour provides guests with the opportunity to browse shops, bookstores, and galleries while simulating customer traffic, clocks, and birds to give the impression that they are actually there (Chrimes and Bordman, 2023). In the Sandbox platform, as the first significant luxury brand to create its own universe within the metaverse platform, Gucci also launched Gucci Vault Land to offer users an immersive journey into the brand's legacy and creative vision with various interactive activities and showcases. Mini-games that showcase Gucci's fundamental principles are available for visitors to play. In order to teach participants about the brand's history in an entertaining way, the "Vault Vintage Lab," for example, allows users to restore historic Gucci handbags, and the "Vault Room of Rhyme" tests them with riddles (Schulz, 2022a).

As one of the pioneers in the fast-fashion industry, H&M also developed "Loooptopia," a circular fashion gaming experience promoting sustainability through virtual design and recycling activities in Roblox (Al-Adwan et al., 2025). Through Loooptopia, H&M created a virtual world where users could explore 3D interactive H&M stores that replicates aspects of H&M's physical stores. Loooptopia incorporates gamification by offering interactive challenges. For example, users might complete fashion quizzes, styling contests, and earn rewards that can be used to redeem in virtual or real store. Also, Loooptopia is promoting sustainable fashion practices. The platform encourages users to engage in activities that simulate the circular fashion economy. For example, users can design and recycle digital garments, earning rewards or unlocking new features by making sustainable choices (Edelson, 2023).

The use of gamification in the metaverse has been more common among international firms, but Turkish fashion brands are also starting to experiment with these digital strategies. Kiğılı, one of Turkey's well-known men's clothing retailers opened its first metaverse store in January 2023, which features interactive elements that resemble gamified experiences. Customers can accumulate points through various in-store interactions that may later be redeemed for discounts or exclusive digital items (Buz, 2023). Also, Beymen, a leading Turkish luxury fashion brand, has effectively incorporated gamification within the metaverse to enhance consumer engagement and brand interaction with a game named "Find Bella". In this campaign, Beymen introduced a virtual influencer named Bella within the Decentraland platform. Users were encouraged to participate in a gamified experience by locating Bella in the virtual environment (Başev, 2024).

4.4.2. Non-Fungible Tokens: Digital Brand Assets

A Non-Fungible Token (NFT) is a blockchain-based digital asset that associates ownership with distinct digital or physical objects. A NFT's uniqueness and inimitable nature allow users to own a real digital property, unlike digital files that can be shared and swapped online indefinitely without belonging to someone (Fonarov, 2022).



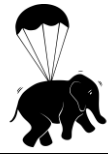
Both luxury and fast-fashion brands are exploring the use of NFTs within the metaverse, though their levels of engagement and strategic approaches differ. NFTs are used by luxury fashion firms to produce digital versions of their goods, which strengthens the idea of exclusivity and scarcity. By providing limited-edition digital products that replicate the exclusivity of real goods, this approach is consistent with conventional luxury standards. Customers looking for distinctive virtual goods may find brands more prestigious and appealing as a result of this digital scarcity (Murtas et al., 2024). In contrast, fast-fashion brands have been slower than their luxury counterparts to embrace NFTs and metaverse technology. They participate in the metaverse less frequently and through fewer NFT-related projects. The luxury and fast-fashion segments may have different target markets, brand positioning, and budget allocation, which could account for this discrepancy (SanMiguel et. al., 2024).

In May 2021, Gucci collaborated with the online gaming platform Roblox to launch a virtual version of its iconic Dionysus Bag as part of the "Gucci Garden Experience". Gucci's Dionysus Bag NFT was sold for more than the physical version, reinforcing digital luxury (Chrimes and Boardman, 2023). Gucci also partnered with Superplastic as a global entertainment company that specializes in creating and managing animated synthetic celebrities, to launch the 10,000-piece NFT series called Supergucci, which combines handcrafted ceramic sculptures with digital tokens with handcrafted ceramic sculptures. This project is a reflection of Gucci's approach to integrating digital innovation with traditional craftsmanship (Schulz, 2022b).

While luxury brands have been more prominent in this space, certain fast-fashion retailers have initiated notable NFT projects. By using NFTs to connect physical and digital products, fast-fashion businesses are experimenting with "phygital" experiences. Customers can now possess both a physical fashion item and its digital counterpart, which can be utilized in virtual settings (McDowell, 2024).

Nike has been a pioneer in integrating NFTs into its brand strategy. In December 2021, Nike acquired RTFKT, a leading brand that leverages cutting-edge innovation to deliver next-generation collectibles merging culture and gaming. This acquisition led to the launch of the "CryptoKicks" NFT collection, comprising 20,000 virtual sneakers (Ryder, 2023).

In May 2022, Kiğılı introduced Turkey's first wearable NFT clothing products during a holographic fashion show, marking a significant step in blending traditional fashion with digital innovation. After this, Kiğılı opened a store in the metaverse in January 2023, further extending its online presence. Customers might engage with the brand's collections in a digital setting by using this virtual store's augmented reality (AR) shopping experience. Customers can earn points at the metaverse store by using discount coupons, tokens, and brand NFTs positioned all over the place. The interactive shopping experience can be improved by using these points to gain access to unique NFT series and special events (Buz, 2023). As a fundamental component of its metaverse strategy, Beymen uses NFTs as digital collectibles and incentive systems. The "Find Bella" campaign reinforced the idea of digital exclusivity and ownership by awarding NFTs as prizes. These NFTs served as both extensions of brand identification and badges of



participation, which was consistent with premium branding tactics that emphasize customization and exclusivity (Başev, 2024).

4.4.3. Virtual Shopping: Unique Brand Experiences

The metaverse enhances unique shopping experiences for consumers by offering immersive, interactive, and personalized environments that blend virtual and physical retail elements. It has completely changed how consumers connect with companies, especially since these platforms' rich digital worlds enable extremely engaging interactions between fashion brands and online shoppers (Park and Kim, 2025).

AR-based "virtual try-ons" and VR-based "virtual fashion shows/showrooms" were two of the most popular ways to improve the shopping experience in metaverse (Holland, 2022). At the intersection of virtual and physical retail, the metaverse enables "phygital" encounters. Customers can easily switch to buying tangible goods after exploring virtual stores and interacting with digital product representations. Convenience and a seamless shopping experience are provided by this connection in both offline and online environments. For example, businesses are creating AR smart glasses to improve in-store experiences by fusing digital data with in-person purchases (Patil et al., 2025).

Retailers can use gamified aspects and AI-driven recommendations to create individualized buying experiences in the metaverse. In Roblox, Nike built a metaverse environment called Nikeland where users may connect, play minigames with a sports theme, and personalize their avatars with Nike virtual clothing. This program encourages peer-to-peer connection and community-driven participation through user-generated content (Patil et al., 2025). Tommy Hilfiger took part in Metaverse Fashion Week (MVFW) on Decentraland, where consumers could purchase digital wearables and view digital copies of the brand's most recent collection. The platform created a highly customized experience by letting users engage with rare, limited-edition goods and customize their avatars (Dieck et al., 2023).

Another important factor, virtual influencers—computer-generated personas designed to engage audiences on digital platforms—are increasingly shaping consumers' fashion shopping experiences within metaverse environments. Lil Miquela, a virtual influencer with over 2.8 million Instagram followers, has collaborated with brands such as Calvin Klein, Dior, and Prada to promote their collections. As bridging the gap between digital and physical retailing, virtual influencers may easily combine online advertising with in-store shopping. (Powers, 2019).

As a luxury fashion brand, Burberry's 'Wrapped in Burberry' holiday campaign included the introduction of an immersive virtual scarf try-on feature in November 2024. With this experience, users could see how different Burberry scarves would appear on them in real time using cutting-edge online 3D and augmented reality (AR) technologies (Kim, 2024).

Forever 21, as one of known fast-fashion brands, has enhanced its consumers' shopping experience within metaverse platforms, particularly through its collaboration with Roblox.



In December 2021, the brand launched Forever 21 Shop City, a virtual retail experience that allows users to own and manage personalized fashion stores. Users can design their virtual stores by selecting locations, decorating interiors, and customizing exteriors with various architectural themes. Players engage in activities such as stocking inventory, assisting customers, operating cash registers, and hiring employees, simulating real-world retail operations ([Lentini, 2021](#)).

Turkish fashion brands are increasingly exploring metaverse platforms to enhance consumer shopping experiences. Kışıl's virtual store offers an augmented reality (AR) shopping experience, allowing customers to interact and socialize through their avatars. Customers are greeted by a virtual store assistant who provides information about the store's layout and collections. Kışıl's metaverse store uses gamification elements to increase user engagement. Tokens, brand NFTs, and discount coupons positioned around the virtual environment allow users to earn points. Benefits like entry to exclusive NFT series and special events can be obtained by exchanging these points. ([Buz, 2023](#)). Additionally, Beymen has introduced Beymenverse, a virtual extension of the brand that provides customers with an engaging online shopping experience. This area simulates real-world retail settings using computer-generated graphics (CGI) in a navigable, fully interactive manner. Customers may browse collections, engage with avatars, and go to virtual events, which replicates in-person shopping while offering more ease and personalization ([Başev, 2024](#)).

5. DISCUSSION and FUTURE RESEARCH AVENUES

A paradigm shift in fashion retailing is presented by the metaverse, which offers highly individualized, immersive, and interactive experiences that go beyond conventional and e-commerce models. The main objective of this study is to point out how fast-fashion and luxury fashion brands adopt the metaverse retailing strategies and how to benefit from this virtual realm, such as enhancing consumer shopping experiences within gaming platforms or selling digital assets as NFTs. This study reviewed relevant academic literature and some industry articles written online by industry experts. As this study illustrates, fast-fashion and luxury fashion companies are employing distinct strategies to successfully navigate this new virtual environment due to their disparate target customers, business models, and brand identities. Luxury brands emphasize exclusivity, digital scarcity, and high-end storytelling through NFTs and virtual fashion shows, whereas fast-fashion companies concentrate on gamified experiences, accessibility, and digital engagement. Also, this study emphasizes the metaverse applications of fashion brands, such as gamification, using NFTs to create a unique brand image with memorable shopping experiences. First, gamification has proven particularly effective in enhancing user interactivity and brand loyalty toward fashion brands by building social community with emotional connection. Second, Non-Fungible Tokens (NFTs) have allowed fashion firms, particularly in the luxury industry, to extend exclusivity into the realm of the digital. Brands such as Gucci and Nike have integrated NFTs to build virtual ownership and status symbols, as well as new revenue streams. However, fast-fashion stores have taken a more

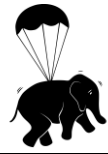


cautious approach to NFTs, possibly due to resource restrictions, competing brand positions, and market expectations. Third, virtual shopping experiences combine physical and digital touchpoints via phygital methods such as virtual try-ons, individualized avatars, and immersive showrooms.

Drawing upon the opportunities and challenges of fashion retail brands and their applications in metaverse environments, this study suggests possible future research avenues for fashion retailers. Future research should aim to fill in a few new gaps and uncharted areas as metaverse technologies continue to develop and change retail fashion in order to increase theoretical and applied understanding. As one of the main obstacles, more research should be conducted on consumers' adoption and willingness to use metaverse ([Koochang et al., 2023](#)). Mostly other than young and tech-savvy consumers, people are very skeptical of using virtual environments for shopping. Future research should analyze the consumers' psychological motivations to use this virtual environment for shopping or to socialize with others by using technology acceptance model ([Park and Lim, 2023](#)). Overcoming initial resistance and educating consumers about the value of virtual fashion is crucial for widespread adoption for retailers. Future research should investigate the long-term impact of virtual ownership on brand loyalty, consumption and purchasing patterns for NFTs, digital fashion items by using theory of psychological ownership ([Park and Kim, 2025](#); [Pierce et al., 2003](#)).

A socio-cultural space where identity, status, and social relationships are rearranged through digital fashion, the metaverse is more than just a technological advancement. Therefore, using sociological lenses to comprehend the wider ramifications of metaverse transactions would be very helpful for future research in this area. For sociological research, the incorporation of the fashion industry into the metaverse offers an intriguing topic, especially when it comes to issues of cultural expression, social interaction, and formation of identity. Consumers frequently use virtual goods to exhibit their personality or to indicate that they belong to specific groups. This behavior reflects larger consumerism trends in society as well as the symbolic importance that fashion objects, especially those in digital format, are given ([Nadeem et al., 2025](#)). Virtual settings give new opportunities for self-presentation and community interaction, which calls for a more thorough investigation of these relationships. More research is needed to understand how users, especially Gen Z as more vulnerable group, create and perform identities in virtual spaces given the prevalence of avatars, virtual influencers, and digital wearables.

Principles of embodied cognition and symbolic consumption, where meanings and emotions associated with virtual interactions impact real-world actions, are reflected in the conversion of virtual engagement into physical purchase ([Belk, 2013](#); [Elder and Krishna, 2012](#)). Thus, future research may investigate the ways in which brand experiences within virtual environment and gaming platforms transfer into the real-life purchasing environment and how this transfer impact brand image and brand equity in real life. Future research may look into how user-mediated vs avatar-mediated brand experiences influence consumer attitudes toward the brand in virtual environments, specifically for different types of fashion brands (luxury vs fast-



fashion) (Park and Lim, 2023). Also, future research should explore whether the psychographic factors (lifestyle, social values, personality such as innovativeness) and cultural orientation (e.g. uncertainty avoidance orientation) impact metaverse adoption and virtual engagement (Mogaji et al., 2023).

As fashion brands increasingly integrate virtual influencers (VIs) into their marketing strategies—such as Lil Miquela for Prada and Bella for Beymen—future research should investigate the effectiveness, authenticity, and consumer perception of these digital personas compared to traditional human influencers. Future studies could explore how different consumers respond to virtual influencers, particularly in terms of perceived credibility and influence on purchase intention. Furthermore, studies might examine whether virtual influencers work better in luxury versus fast-fashion settings, considering the distinct principles that these markets represent (Kim et al., 2024).

To sum up, this study identifies distinct future research directions based on distinctive theories for three key stakeholder groups in the metaverse fashion retail ecosystem: retail managers, consumers, and society. For retail managers, future research should investigate how digital tools such as gamification, NFTs, and virtual influencers affect customer acquisition, engagement, and long-term brand loyalty. Studies grounded in technology acceptance models (TAM) and AI-driven personalization can help retailers optimize digital infrastructure while minimizing resistance and enhancing user experience. Research should also explore how managers can integrate data ethics, privacy safeguards, and immersive storytelling into their metaverse strategies to create differentiated brand value. For consumers, psychological frameworks such as symbolic consumption theory, embodied cognition and psychological ownership offer rich avenues to explore how digital fashion items, avatars, and virtual interactions influence self-expression, purchase behavior, and brand attachment. Future studies could analyze how consumers transfer virtual experiences into real-life consumption patterns, particularly through phygital shopping environments and wearable NFTs. From a societal perspective, research should critically examine the broader cultural and ethical implications of metaverse fashion, including issues of digital identity formation and social inclusion vs exclusion.

6. CONCLUSION

This study examined how the metaverse is revolutionizing fashion retailing by comparing the ways in which luxury and fast-fashion firms are redefining consumer involvement using immersive technology in different ways. The paper highlights gamification, Non-Fungible Tokens (NFTs), and virtual shopping experiences as important pillars of metaverse strategy, drawing on a thorough literature assessment and real-world case examples. Within virtual environments, these tools are helping brands create new kinds of identity, community, and interaction with consumers. Despite its comprehensive scope, this study has several limitations. First, it relies primarily on secondary data and illustrative examples, limiting its empirical generalizability. Future research could build on these findings through qualitative or



quantitative methods, such as interviews, surveys, or experimental designs. Another notable limitation of this study lies in the availability and scope of academic sources. As metaverse retailing is an emerging and fast-evolving research area, the number of peer-reviewed empirical studies remains relatively limited. While efforts were made to include a wide range of sources—including journal articles, industry reports, and practitioner insights—reliance on a few academic databases such as Google Scholar, Scopus, and Web of Science may have constrained the comprehensiveness of the literature reviewed. Future studies could benefit from expanding the database coverage and incorporating grey literature, conference proceedings, or primary data to gain a more holistic and up-to-date view of the evolving metaverse landscape. Finally, the study focuses largely on global Western and Turkish fashion brands; expanding the geographical scope and including emerging markets could provide a more holistic understanding of metaverse retail adoption.

References

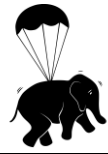
- Al-Adwan, A. S., Yaseen, H., Alkkhwaldi, A. F., Jafar, R. M. S., Fauzi, M. A., & Abdullah, A. (2025). Treasure hunting for brands: Metaverse marketing gamification effects on purchase intention, WOM, and loyalty. *Journal of Global Marketing*, 38(4), 392-416. <https://doi.org/10.1080/08911762.2025.2463897>
- Alayli, S. (2023). Examining the impact of metaverse technology on the launch of retailers in the metaverse: A mediating perspective. *Webology*, 20(1), 85 - 103.
- Ali, S. A., & Khan, R. (2023). Metaverse marketing vs digital marketing. *International Journal of Innovative Science and Research Technology*, 8(1), 385-388. <https://doi.org/10.5281/zenodo.7564322>
- Alonso, T. (2022). *Zara continues its foray into the metaverse*. Fashion Network. <https://www.fashionnetwork.com/news/Zara-continues-its-foray-into-the-metaverse,1392118.html> (Accessed Date: 20 March 2025).
- Al-Sharafi, M. A., Al-Emran, M., Al-Qaysi, N., Iranmanesh, M., & Ibrahim, N. (2024). Drivers and barriers affecting metaverse adoption: A systematic review, theoretical framework, and avenues for future research. *International Journal of Human-Computer Interaction*, 40(22), 7043-7064. <https://doi.org/10.1080/10447318.2023.2260984>
- Arksey, H., & O'malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19-32. <https://doi.org/10.1080/1364557032000119616>
- Bain, M. (2022). *How brands are using NFTs to keep customers hooked*. Business of Fashion. <https://www.businessoffashion.com/articles/technology/how-brands-are-using-nfts-to-keep-customers-hooked/> (Accessed Date: 16 January 2025).
- Bakshi, S. (2022). *Fashion in metaverse*. Fibre2Fashion. <https://www.fibre2fashion.com/industry-article/9352/fashion-in-metaverse> (Accessed: Date: 08 March 2025).



- Başev, S. E. (2024). Influencer marketing in the age of metaverse: Beymenverse and meta-influencer Bella. *International Journal of Eurasian Education and Culture*, 9(25), 29-41. <http://dx.doi.org/10.35826/ijoecc.1820>
- Belk, R. W. (2013). Extended self in a digital world. *Journal of Consumer Research*, 40(3), 477-500. <https://doi.org/10.1086/671052>
- Belk, R., Humayun, M., & Brouard, M. (2022). Money, possessions, and ownership in the Metaverse: NFTs, cryptocurrencies, Web3 and wild markets. *Journal of Business Research*, 153, 198-205. <https://doi.org/10.1016/j.jbusres.2022.08.031>
- Blazquez, M. (2024). The Metaverse and its potential for digital sustainability in fashion. *Journal of Global Fashion Marketing*, 15(3), 303-319. <https://doi.org/10.1080/20932685.2024.2339236>
- Bourlakis, M., Papagiannidis, S., & Li, F. (2009). Retail spatial evolution: paving the way from traditional to metaverse retailing. *Electronic Commerce Research*, 9, 135-148. <https://doi.org/10.1007/s10660-009-9030-8>
- Business Wire. (2022). *DIOR beauty launch industry-first WhatsApp campaign with global influencer Jisoo*. Business Wire: A Berkshire Hathaway Company. https://www.businesswire.com/news/home/20220509005205/en/DIOR-Beauty-Launch-Industry-First-WhatsApp-Campaign-With-Global-Influencer-Jisoo?utm_source=chatgpt.com (Accessed Date: 10 July 2025).
- Buz, E. (2023). *Kiğılı opens its first store in metaverse*. textilegence. <https://www.textilegence.com/en/kigili-opens-its-first-store-in-metaverse/> (Accessed Date: 11 February 2025).
- Chrimes, C., & Boardman, R. (2023). The Opportunities & Challenges of the Metaverse for Fashion Brands. In M. Brandstrup, M., L. P. Dana, D. Ryding, G. Vignali, & M. Caratù (Eds.), *The garment economy* (pp. 389-410). Springer. https://doi.org/10.1007/978-3-031-33302-6_20
- Demirci, B., Özeltürkay, E. Y., & Gülmez, M. (2024). Metaverse users' purchase intention in second life. *Journal of Metaverse*, 4(1), 84-93. <https://doi.org/10.57019/jmv.1423387>
- Dieck, M. C., Cranmer, E., Prim, A. L., & Bamford, D. (2023). The effects of augmented reality shopping experiences: Immersion, presence and satisfaction. *Journal of Research in Interactive Marketing*, 17(6), 940-958. <https://doi.org/10.1108/JRIM-09-2022-0268>
- Donvito, R., Acuti, D., & Song, S. (2024). Fashion and the metaverse: Implications for consumers and firms. *Journal of Global Fashion Marketing*, 15(1), 1-5. <https://doi.org/10.1080/20932685.2023.2293290>



- Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., Dennehy, D., Metri, B., Buhalis, D., Cheung, C. M. K., Conboy, K., Doyle, R., Dubey, R., Dutot, V., Felix, R., Goyal, D. P., Gustafsson, A., Hinsch, C., Jebabli, I., Janssen, 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. <https://doi.org/10.1016/j.ijinfomgt.2022.102542>
- Dwivedi, Y. K., Hughes, L., Wang, Y., Alalwan, A. A., Ahn, S. J., Balakrishnan, J., Barta, S., Belk, R., Buhalis, D., Dutot, V., Felix, R., Filieri, R., Flavián, C., Gustafsson, A., Hinsch, C., Hollensen, S., Jain, V., Kim, J., Krishen., A. S., ... & Wirtz, J. (2023). Metaverse marketing: How the metaverse will shape the future of consumer research and practice. *Psychology & Marketing*, 40(4), 750-776. <https://doi.org/10.1002/mar.21767>
- Edelson, S. (2023). *H&M launches looptopia, an immersive Roblox experience where fans discover their digital fashion identities*. Forbes. <https://www.forbes.com/sites/sharonedelson/2023/01/04/hm-launches-looptopia-an-immersive-roblox-experience-where-fans-discover-their-digital-fashion-identities/> (Accessed Date: 21 August 2025).
- Eggenschwiler, M., Linzmajer, M., Roggeveen, A. L., & Rudolph, T. (2024). Retailing in the metaverse: A framework of managerial considerations for success. *Journal of Retailing and Consumer Services*, 79, 103791. <https://doi.org/10.1016/j.jretconser.2024.103791>
- Elder, R. S., & Krishna, A. (2012). The “visual depiction effect” in advertising: Facilitating embodied mental simulation through product orientation. *Journal of Consumer Research*, 38(6), 988-1003. <https://doi.org/10.1086/661531>
- Fonarov, O. (2022). *What is the role of NFTs in the metaverse?*. Forbes. <https://www.forbes.com/sites/forbestechcouncil/2022/03/11/what-is-the-role-of-nfts-in-the-metaverse/?sh=404c411e6bb8> (Accessed Date: 19 February 2025).
- Geniomode. (2023). *Revolutionizing the fashion industry: The rise of digital twins*. Medium. <https://medium.com/%40Geniomode/revolutionizing-the-fashion-industry-the-rise-of-digital-twins-8e7e6c1eeda> (Accessed Date: 10 July 2025).
- Hahn, J. (2021). *Gucci releases first virtual sneaker that can only be worn in digital environments*. dezeen. <https://www.dezeen.com/2021/03/19/virtual-25-gucci-wanna-digital-sneaker/> (Accessed Date: 16 January 2025).
- Holland, O. (2022). *Luxury fashion houses are funneling millions into the metaverse. But to what end?*. CNN style. <https://edition.cnn.com/style/article/fashion-metaverse-millions-september-issues/index.html> (Accessed Date: 05 February 2025).
- Hu, L., Olivieri, M., Giovannetti, M., & Cedrola, E. (2025). The retail strategies of luxury fashion firms in the metaverse: Enhancing brand experiences. *Journal of Retailing and Consumer Services*, 84, 104202. <https://doi.org/10.1016/j.jretconser.2024.104202>



- 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. <https://doi.org/10.1002/jsc.2502>
- Kara, B. (2022). *Turkcell to launch a store in the metaverse*. TR Monitor. <https://www.trmonitor.net/turkcell-to-launch-a-store-in-the-metaverse/> (Accessed Date: 10 July 2025).
- Kim, E. S. (2024). *Burberry releases its 2024 holiday campaign, "Wrapped in Burberry"*. CR Fashion Book. <https://crfashionbook.com/burberry-2024-holiday-campaign-wrapped-in-burberry/> (Accessed Date: 21 August 2025).
- Kim, I., Chloe, C. W. K., Aiden, H. L., & Kim, Y. K. (2024). Virtual influencer marketing: Evaluating the influence of virtual influencers' form realism and behavioral realism on consumer ambivalence and marketing performance. *Journal of Business Research*, 176, 114611. <https://doi.org/10.1016/j.jbusres.2024.114611>
- Kim, J. (2021). Advertising in the metaverse: Research agenda. *Journal of Interactive Advertising*, 21(3), 141-144. <https://doi.org/10.1080/15252019.2021.2001273>
- Kniazeva, M., Aiello, G., Dasmi, C., Mazzoli, V., Nechaeva, O., & Syed, F. U. (2024). Why fashion brands enter the metaverse: Exploring the motivations of fast fashion and luxury fashion brands. *Journal of Global Fashion Marketing*, 15(1), 62-89. <https://doi.org/10.1080/20932685.2023.2269952>
- Kolk, A. (2023). *How fashion brands are entering the metaverse*. EpiProdux. <https://epiprodux.com/blog/how-fashion-brands-are-entering-the-metaverse/> (Accessed Date: 05 March 2025).
- Koohang, A., Nord, J. H., Ooi, K. B., Tan, G. W. H., Al-Emran, M., Aw, E. C. X., Baabdullah, A. M., Buhalis, D., Cham, T. H., Dennis, C., Dutot, V., Dwivedi, Y. K., Hughes, L., Mogaji, E., Pandey, N., Phau, I., Raman, R., Sharma, A., Sigala, M., Ueno, A., & Wong, L. W. (2023). Shaping the metaverse into reality: A holistic multidisciplinary understanding of opportunities, challenges, and avenues for future investigation. *Journal of Computer Information Systems*, 63(3), 735-765. <https://doi.org/10.1080/08874417.2023.2165197>
- Kuntze, R., Crudele, T. R., Reynolds, D., & Matulich, E. (2013). The rise and fall of virtual reality retailing in second life: An avatar's perspective. *Journal of Management and Marketing Research*, 13, 1-13.
- Lentini, N. (2021). *Forever 21's metaverse venture lets Roblox users customize virtual fashion stores*. Retail Dive. <https://www.retaildive.com/news/forever-21s-metaverse-venture-lets-roblox-users-customize-virtual-fashion/611824/> (Accessed Date: 08 March 2025).
- Li, K., Cui, Y., Li, W., Lv, T., Yuan, X., Li, S., Ni, W., Simsek, M., & Dressler, F. (2022). When internet of things meets metaverse: Convergence of physical and cyber worlds. *IEEE Internet of Things Journal*, 10(5), 4148-4173. <https://doi.org/10.1109/JIOT.2022.3232845>



- Lumbroso, N. (2022). *The metaverse and retail: A look at the future of shopping*. Treedis. <https://www.treedis.com/post/the-metaverse-and-retail-a-look-at-the-future-of-shopping?utm> (Accessed Date: 09 March 2025).
- McDowell, M. (2024). *Why the metaverse is moving into physical retail*. Vogue Business. <https://www.voguebusiness.com/story/technology/why-the-metaverse-is-moving-into-physical-retail> (Accessed: 09 February 2025).
- McKinsey. (2022). *Marketing in the metaverse: An opportunity for innovation and experimentation*. McKinsey & Company. <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/marketing-in-the-metaverse-an-opportunity-for-innovation-and-experimentation> (Accessed Date: 16 January 2025).
- Mogaji, E., Wirtz, J., Belk, R. W., & Dwivedi, Y. K. (2023). Immersive time (ImT): Conceptualizing time spent in the metaverse. *International Journal of Information Management*, 72, 102659. <https://doi.org/10.1016/j.ijinfomgt.2023.102659>
- Murtas, G., Pedeliento, G., & Mangiò, F. (2024). Luxury fashion brands at the gates of the Web 3.0: An analysis of early experimentations with NFTs and the metaverse. *Journal of Global Fashion Marketing*, 15(1), 90-114. <https://doi.org/10.1080/20932685.2023.2249476>
- Nadeem, W., Alimamy, S., Ashraf, A. R., & Wang, K. Y. (2025). Understanding consumers' value co-creation and value co-destruction with augmented reality service marketing. *Journal of Services Marketing*, 39(3), 218-247. <https://doi.org/10.1108/JSM-07-2024-0332>
- Noris, A., Nobile, T. H., Kalbaska, N., & Cantoni, L. (2021). Digital fashion: A systematic literature review. A perspective on marketing and communication. *Journal of Global Fashion Marketing*, 12(1), 32-46. <https://doi.org/10.1080/20932685.2020.1835522>
- Önder, N. (2022). *Metaverse'e adım atan öncü markalar!*. Marketing Türkiye. <https://www.marketingturkiye.com.tr/haberler/metaversee-adim-atan-oncu-markalar/> (Accessed Date: 10 July 2025).
- Park, H., & Lim, R. E. (2023). Fashion and the metaverse: Clarifying the domain and establishing a research agenda. *Journal of Retailing and Consumer Services*, 74, 103413. <https://doi.org/10.1016/j.jretconser.2023.103413>
- Park, J., & Kim, H. Y. (2025). Psychological ownership of avatars in the metaverse: Its key antecedents and outcomes. *Journal of Consumer Behaviour*, 24(1), 332-346. <https://doi.org/10.1002/cb.2417>
- Patil, K. P., Paul, J., Bharathi S, V., & Pramod, D. (2025). Unveiling the metaverse retail environments: understanding consumer gratifications and buying behavior. *Journal of Research in Interactive Marketing*. <https://doi.org/10.1108/JRIM-07-2024-0326>



- Patnaik, D., Pradhan, B. B., & Barik, T. R. (2024). Optimization potential using AI and metaverse in supply chain management: A forward-looking perspective. *Optimization*, 22(01), 1340-1355.
- Patruți, P., Zbucnea, A., & Pinzaru, F. (2023). Fashion joining online gaming and the metaverse. *Proceedings of the International Conference on Business Excellence*, 17(1), 1065-1074. <https://doi.org/10.2478/picbe-2023-0096>
- Periyasami, S., & Periyasamy, A. P. (2022). Metaverse as future promising platform business model: Case study on fashion value chain. *Businesses*, 2(4), 527-545. <https://doi.org/10.3390/businesses2040033>
- Pham, M. T., Rajić, A., Greig, J. D., Sargeant, J. M., Papadopoulos, A., & McEwen, S. A. (2014). A scoping review of scoping reviews: Advancing the approach and enhancing the consistency. *Research Synthesis Methods*, 5(4), 371-385. <https://doi.org/10.1002/jrsm.1123>
- Pierce, J. L., Kostova, T., & Dirks, K. T. (2003). The state of psychological ownership: Integrating and extending a century of research. *Review of General Psychology*, 7(1), 84-107. <https://doi.org/10.1037/1089-2680.7.1.84>
- Powers, K. (2019). *Virtual influencers are becoming more real—Here's why brands should be cautious*. American Marketing Association. <https://www.ama.org/marketing-news/virtual-influencers-are-becoming-more-real/> (Accessed Date: 15 February 2025).
- Profumo, G., Testa, G., Viassone, M., & Ben Youssef, K. (2024). Metaverse and the fashion industry: A systematic literature review. *Journal of Global Fashion Marketing*, 15(1), 131-154. <https://doi.org/10.1080/20932685.2023.2270587>
- Ryder, B. (2023). *Fashion NFTs total \$245 million in sales. Can brands harness success in 2023?*. Jing Daily. <https://jingdaily.com/posts/how-brands-can-harness-the-potential-of-fashion-nfts-in-2023> (Accessed Date: 21 August 2025).
- SanMiguel, P., Sádaba, T., & Sayeed, N. (2024). Fashion brands in the metaverse: Achievements from a marketing perspective. *Journal of Global Fashion Marketing*, 15(3), 320-340. <https://doi.org/10.1080/20932685.2024.2331518>
- Sayem, A. S. M. (2022). Digital fashion innovations for the real world and metaverse. *International Journal of Fashion Design, Technology and Education*, 15(2), 139-141. <https://doi.org/10.1080/17543266.2022.2071139>
- Schulz, M. (2022a). *Gucci Vault opens metaverse world in The Sandbox with games and vintage fashion*. <https://www.voguebusiness.com/technology/gucci-vault-opens-metaverse-world-in-the-sandbox-with-games-and-vintage-fashion> (Accessed Date: 08 February 2025).
- Schulz, M. (2022b). *2022: A year of fashion NFTs*. Vogue Business. <https://www.voguebusiness.com/gallery/2022-a-year-of-fashion-nfts> (Accessed Date: 21 August 2025).



- Shahriar, H. (2023). Into the metaverse: Technological advances shaping the future of consumer and retail marketing. In K. Bäckström, C. Egan-Wyer, & E. Samsioe (Eds.), *The future of consumption: How technology, sustainability and wellbeing will transform retail and customer experience* (pp. 55-75). Palgrave Macmillan. <https://doi.org/10.1007/978-3-031-33246-3>
- Singh, M. (2024). Exploring the possibilities to implement metaverse in higher education institutions of India. *Education and Information Technologies*, 29, 20715-20728. <https://doi.org/10.1007/s10639-024-12691-2>
- Song, C., Shin, S. Y., & Shin, K. S. (2023). Exploring the key characteristics and theoretical framework for research on the metaverse. *Applied Sciences*, 13(13), 7628. <https://doi.org/10.3390/app13137628>
- Tam, F. Y., & Lung, J. (2024). Luxury fashion brands in metaverse retailing – A review of literature and practice. *Foresight*, 27(1), 169-199. <https://doi.org/10.1108/FS-07-2023-0132>
- Tavman, E. B. (2024). Metaverse retailing: Opportunities and challenges. *PressAcademia Procedia*, 19, 10-15. <https://doi.org/10.17261/Pressacademia.2024.1902>
- Toraman, Y., & Geçit, B. B. (2023). User acceptance of metaverse: An analysis for e-commerce in the framework of technology acceptance model (TAM). *Sosyoekonomi*, 31(55), 85-104. <https://doi.org/10.17233/sosyoekonomi.2023.01.05>
- Truong, V. T., Le, L., & Niyato, D. (2023). Blockchain meets metaverse and digital asset management: A comprehensive survey. *IEEE Access*, 11, 26258-26288. <https://doi.org/10.1109/ACCESS.2023.3257029>
- Um, H., Ko, E., Cho, M., & Do, B. (2025). Does luxury fashion shape consumers' perception differently in the real world versus the metaverse? A comparative study on wearer evaluation. *International Journal of Human-Computer Interaction*, 41(13), 8314-8329. <https://doi.org/10.1080/10447318.2024.2407688>
- Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: introduction to the special issue on multi-channel retailing. *Journal of Retailing*, 91(2), 174-181. <https://doi.org/10.1016/j.jretai.2015.02.005>
- Walk-Morris, T. (2022). *Forever 21, Barbie launch summer collection available in the metaverse*. *Retail Dive*. <https://www.retaildive.com/news/forever-21-barbie-metaverse-collection/625108/> (Accessed Date: 08 March 2025).
- Williams, R. (2021). *Gucci's Robert Triefus on testing luxury's allure in the Metaverse*. The Business of Fashion. <https://www.businessoffashion.com/articles/luxury/the-state-of-fashion-2022-bof-mckinsey-gucci-robert-triefus-metaverse-virtual-nft-gaming/> (Accessed Date: 28 February 2025).
- Yan, R. (2022). A sustainable fashion industry business model revolution based on the metaverse: Practices and reciprocal processes. *Highlights in Business, Economics and Management*, 4, 363-369. <https://doi.org/10.54097/hbem.v4i.3526>



Yang, Q., Zhao, Y., Huang, H., Xiong, Z., Kang, J., & Zheng, Z. (2022). Fusing blockchain and AI with metaverse: A survey. *IEEE Open Journal of the Computer Society*, 3, 122-136. <https://doi.org/10.1109/OJCS.2022.3188249>

Yoo, K., Welden, R., Hewett, K., & Haenlein, M. (2023). The merchants of meta: A research agenda to understand the future of retailing in the metaverse. *Journal of Retailing*, 99(2), 173-192. <https://doi.org/10.1016/j.jretai.2023.02.002>

Declaration of Contribution Rate: The entire study has been prepared only by the responsible author.

Declaration of Support and Appreciation: The research did not receive any support from any institution or organisation.

Declaration of Conflict: The author declares that there is no conflict of interest.

In this study, the rules stated in the “Higher Education Institutions Scientific Research and Publication Ethics Directive” were followed.

This article has been screened with **similarity** detection software.