

INCEPTION OF LUXURY FASHION IN METAVERSE: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Fashion industry is currently undergoing a digital transformation, characterised by an accelerating developments by reinventing its business models and creating a new order in the fashion world. The advent of novel technologies, such as the metaverse and non-fungible tokens (NFTs), is unlocking a wide array of fresh prospects for fashion businesses. The pace of technology adoption has experienced a notable surge due to the pandemic, leading to era of digital revolution in fashion industry. As per the MC Kinsey State of Fashion Technology Report 2022, "Consumer digital engagement rose sharply during the COVID-19 pandemic, as a result of more hours spent online, new shopping habits, and rising interest in gaming and virtual worlds". The implementation of lockdown measures during the global pandemic resulted in individuals being restricted to their residences, hence leading to an increased reliance on social media platforms as the primary means of socialising and expressing personal interests. The shutdown of physical retail establishments due to the global pandemic necessitated a shift of consumer behaviour, as individuals increasingly opted for online purchases. The process of digitization within the fashion industry have impacted the luxury sector with the young cohort of affluent customers driving the luxury industry with digital-first approach. In order to remain relevant among the burgeoning premium clientele, luxury enterprises are now required to have an online presence and employ technological developments due to the prevalence of digital adoption in recent years. Luxury fashion manufacturers are strengthening customer experience and promoting their items through the introduction of exclusive virtual experiences. This objective is been accomplished by constructing a distinct virtual environment within the metaverse, a hypothetical realm that operates in parallel to our physical reality with the integration of blockchain technology, smart contracts, non-fungible tokens (NFTs), cryptocurrencies, and Artificial Intelligence (AI). Numerous prominent entities in the industry like Louis Vuitton, Burberry, Gucci and Nike have adopted non-fungible tokens (NFTs) and cryptocurrencies, using the digital realm to expand their influence to engage a novel, technology-savvy online demographic.

The paper aims is to map and comprehend the inception of metaverse in luxury fashion by studying the brands that has ventured in the luxury metaverse fashion. It also studies the brands engagement activities like introducing digital twin, building virtual stores, launching video game collaborations and so on. The study involves the qualitative research approach where research articles were analysed through systematic literature review. The articles were majorly categorized in 03 segments such as inception of digital fashion in metaverse and transition of luxury brands to digital space and lastly the brand engagement. The findings determine the current phase of luxury fashion industry in the fashion life cycle of digital fashion and metaverse. In addition, the evolution of digital luxury fashion will aid in the comprehension of the future of luxury fashion brands by utilising the metaverse for the introduction of digital fashion.

1. INTRODUCTION

Virtual worlds are computer-generated settings where people utilise avatars to engage in interactions with one other and the virtual environment and, virtual worlds in graphical forms have been used for social networking purposes since the mid-1980s. (Yakal, 1986 as cited in Peachey and Childs 2011). The Metaverse is a digital world that exists alongside the physical world, allowing users to engage with it and replicate the characteristics of the natural world. "The Metaverse is based on technologies that enable multisensory interactions with virtual environments, digital objects and people." (Mystakidis 2022). A digital virtual person is a component used by humans in the physical world to navigate unrestrictedly inside the Metaverse. Clothing has significant importance inside the Metaverse as it serves as a mirror of an individual's inner qualities and societal standing. (Mu et al. 2023). Nevertheless, the advent of the metaverse, a virtual reality parallel universe, has unveiled a fresh realm for digital fashion. (Sayem, 2022). Digital fashion refers to a practice that produces three-dimensional virtual clothing as prototypes or sample simulations for possible physical garments, and/or for datafied virtual, digital-only garment representations", (Särmäkari, 2021).

Digital advancements have a profound and far-reaching influence on the fashion industry, reshaping its concept on numerous levels, including design, production, communication, advertising, marketing, utilisation, and disposal. (Noris et al., 2020). Today, the virtual dimensions of fashion are argued to be remediated and refashioned, and the new digitized practices to be relationally coexisting with the traditional and material ones (Crewe 2013; as cited in Särmäkari 2021). Technological breakthrough for the fashion industry's include the metaverse, which encompasses many technologies such as extended reality (XR) (avatars, virtual reality (VR), and augmented reality (AR)), blockchain, non-interoperable tokens (NFTs), and gaming "skins". (Alexandrova and Poddubnaya 2023). The Covid-19 has led to an increase in the popularity of digital fashion, which involves the use of Instagram filters, video game skins, and virtual collections from both new and established labels. The pandemic and technological advancements are leading to a shift in digital assets and currencies, with cryptocurrencies becoming increasingly popular among investors. The luxury fashion industry is embracing the Metaverse and NFTs, seeing them as unique technologies with additional benefits. The NFT market has seen a boom in 2020, with wealthy digital natives emerging as traders in this emerging market. "More and more people from the younger generation are willing to embrace the metaverse by buying their own digital goods. The concept of metaverse is being used more than ever by different companies to rebrand themselves to attract the younger generation to create a space where they can create, buy and sell goods." (Chen et al., 2022, p. 533)

The fashion industry is embracing immersive technology, with the VR market projected to grow from 12 billion USD in 2022 to over 22 billion USD by 2025. The industry is shifting towards a future where people spend a significant portion of their lives in digital realms, including gamification, digital fashion, and the metaverse, and using these technologies to enhance customer experiences during virtual shopping. Nevertheless, there are obstacles linked to the adoption and dissemination of novel technologies. (Mesjar et al., 2023) Fashion labels like Jimmy Choo, Gucci, Dolce & Gabbana, and Louis Vuitton are creating non-fungible tokens (NFTs) using blockchain technology. Brands like Hilfiger and Hogan participated in Metaverse Fashion Week, showcasing virtual boutiques and NFT wearables. NFTs have the potential to create \$56 billion in income by 2030, potentially disrupting the luxury industry. Therefore, it's crucial to examine the digital technology's influence on the luxury market. (Slaton & Pookulangara, 2022). By examining the firms that have ventured with luxury metaverse fashion, the paper seeks to trace and understand the inception and activities of luxury fashion in metaverse.

2. METHODOLOGY:

In this study, a systematic literature review and thematic analysis was used to assess research papers using a qualitative research approach for the following questions proposed. A systematic review can be explained as a research method and process for identifying and critically appraising relevant research, as well as for collecting and analysing data from said research (Liberati et al., 2009). A thematic analysis on the entire sample of articles was carried out to identify major themes and sub-themes in the articles. "Themes and subthemes represent the core ideas, arguments and conceptual linking of expressions on which an article's research questions, constructs, concepts and/

or measurements are based” (Linan and Fayolle, 2015). This comprehensive overview of the literature looks at how metaverse has been researched in the past, mostly in relation to digital luxury fashion. The secondary data for this study is systematically collected from journal publications in Google Scholar and other sources like conference papers, books, thesis, book section web articles and so on. Three primary phases comprise a successful review: review planning, review execution, and review reporting (Kitchenham and Charters 2007; Breretona et al 2007).

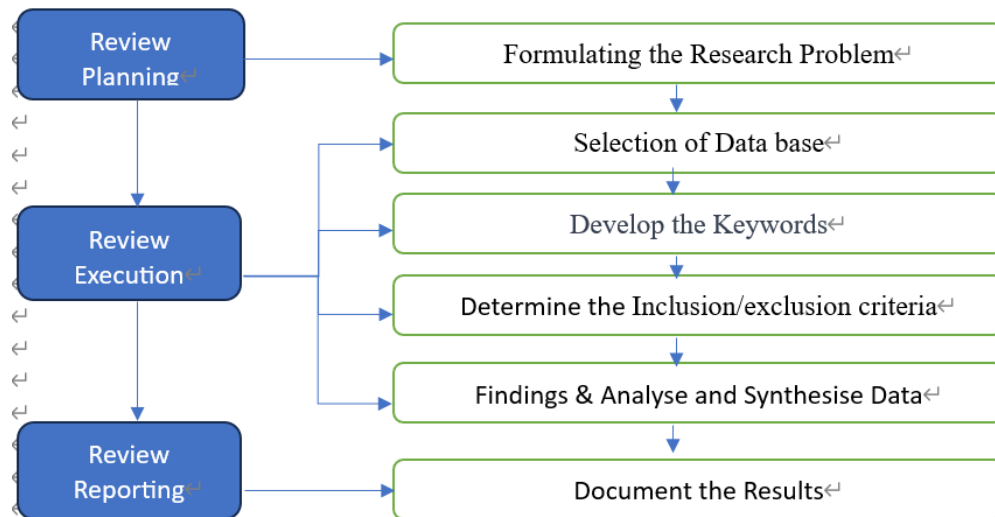


Fig. 1:Steps adopted in conducting Systematic Literature Review

2.1: Step 1: Formulating the Research Problem and objectives.

According to Kitchenham and Charters (2007) Research questions, drive the entire literature review process. This study tends to synthesize and analyse answers for the following research questions.

RQ1: When did luxury fashion brands established their foothold in the metaverse?

RQ2: “How did brands strategically engage their customers in the metaverse ?

RQ3 : What is the present position of the luxury fashion industry in the metaverse?

2.1.1 Objective

a) To understand the establishment of Luxury brands in the metaverse using SLR

b) To analyse the customer engagement and present position in of the luxury brands in metaverse by generating codes and creating theme.

2.2: Step 2: Selection of Data base:

Google Scholar is becoming an increasingly prevalent bibliometric instrument utilised to gather data regarding the citation impact of specific articles, researchers, or scientific-scholarly journals. (Moed, Bar-Ilan and Halevi, 2016). To access the relevant academic publications, the Google Scholar database was selected. Kitchenham and Charters (2007) suggests that the search requirements should encompass grey literature, which consists of reports, theses, and conference proceedings and to avoid publication bias that may result from omitting these sources. Hence The secondary data for this study is systematically collected from journal publications in Google Scholar

2.3: Step 3:Develop the Keywords:

Multiple search engines allow the use of Boolean operators. It is crucial to have a high level of skill in constructing search sequences using the Boolean operators “AND” and “OR”. The conjunction “AND” is often used to link the main

phrases, but the conjunction "OR" is applied to include synonyms (Fink, 2005 and Breretona et al., 2007 as cited in Xiao and Watson, 2019). In order to accomplish the aims established for this systematic literature review (SLR), a meticulously crafted research strategy was implemented, incorporating precisely defined keywords and criteria for inclusion and exclusion. The used keywords were: "Metaverse" OR " Digital Fashion" AND "Luxury Metaverse" OR " Digital Luxury Fashion" AND "Metaverse Fashion Brand".

2.4: Step 4:Inclusion/exclusion criteria:

The search yielded with 191 documents related to Metaverse and Luxury. The analysis considered titles, abstracts, and introductions for articles without an abstract. The Zotero application was used to evaluate titles, abstracts, and keywords, and papers were screened based on their relevance to Metaverse and Luxury concepts. The screening included examining 191 papers to identify the studies that met the criteria for eligibility and inclusion. After exporting the database to Excel, duplicate documents were eliminated, leading to the rejection of 37 papers. 19 papers published under medical, education, advertising and other technical fields were excluded. Further 2 papers with incomplete information were also excluded.

3. RESULTS & DISCUSSION:

After carefully obtaining the 133 documents, a thorough examination of the documents through systematic literature review and thematic analysis the results produced answers for the research questions proposed.

3.1. Inception of Luxury Brands in Metaverse.

The systematic Literature review was carried to categorise the documents obtained results for objective proposed. The analysis of characteristics of article by year (refer Fig:1) and publication (refer Fig:2) revealed the data of the pattern on how luxury brands established their business activity in the metaverse.

3.1.1. Characteristics of the articles by Year:

The first part of this review entailed a careful review of the timing of articles by year (Seuring & Müller, 2008) which was done via a thorough descriptive evaluation. The data, shown in (Fig. 2) provides a clear visual picture of the sequential arrangement of publications from 2011 to 2023. A clear pattern becomes apparent, indicating a constant and significant increase in the number of publications throughout this period of time. It is worth noting that before 2021, there were very few research conducted in this field. Nevertheless, there has been a noticeable increase in academic contributions after the world wide epidemic, suggesting a greater scholarly interest in the topic.

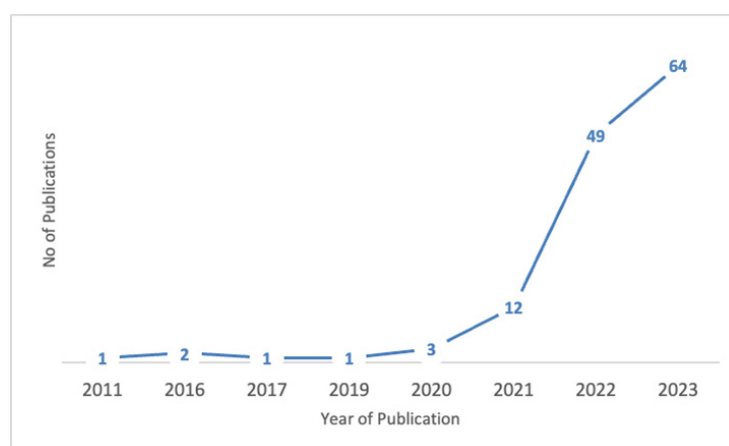


Fig.2: Number of articles published by year

3.1.2: Characteristics of the articles by Publication:

This article explores the nascent digital fashion subfield of Digital Luxury Fashion in Metaverse, and henceforth included peer-reviewed literature, empirical studies, conceptual papers, and conference proceedings for a comprehensive examination. It also includes literature and industry reports for additional background and context. (Karasman et al., 2016, Athwal et al., 2019 as in Howard H.W. Chan et al., 2023). Figure 2 demonstrates that the journal article is the primary source of data, accounting for 44% of the dataset. Webpages, on the other hand, rank second with a contribution of 21%. Subsequent to a contribution of 14% of thesis. The conference paper and book section each account for around 5%. The abundance of journal publications suggests that metaverse research is progressing, with indexed journals now accepting papers on this area, creating prospects for more investigations.

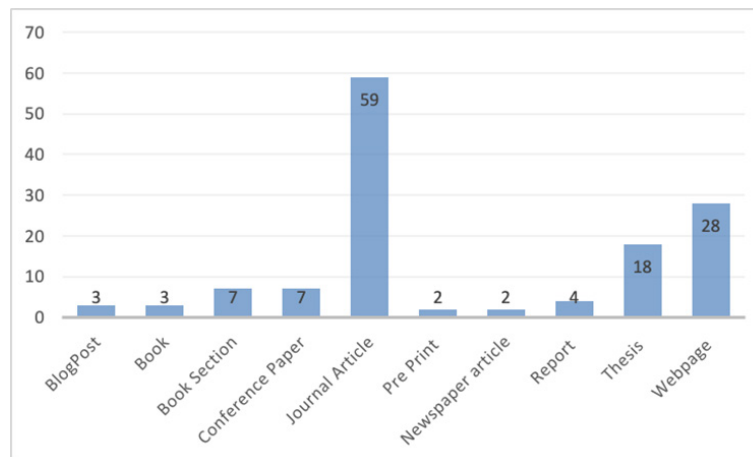


Fig.3: Number of articles published by year

Graphical versions of virtual worlds have been primarily utilised for social networking since the mid-1980s (“Reinventing Ourselves: Contemporary Concepts of Identity in Virtual Worlds,” 2011). In 2018, Carlings launched its first online apparel line, featuring nineteen products priced at £9. In 2019, a significant development transpired within the fashion industry when The Fabricant, a Dutch fashion start-up, collaborated with Dapper Labs, a blockchain company, to auction off their digital-only dress at Ethereum Summit (New York). The dress was valued at \$9,500 in cryptocurrency (Govisotech, 2021). The fashion industry has experienced a rapid acceleration of its virtual digital transformation amidst the COVID-19 pandemic. The Figure.1 depicts the increase in publication on related matter from the year 2020.

A considerable number of individuals resorted to online gaming as a means of socialising, leading to a notable surge in the number of daily active users for platforms like Roblox (2021), which surpassed 45.5 million (Landsberg, 2022). The escalating levels of user interaction have led to a heightened significance attributed to multiversal identities, as younger consumers seek to express their personal beliefs and values to others in the digital realm. (Fulton, 2022) This shift in consumer behaviour, coupled with closure measures, has already compelled luxury brands to adopt digital commerce innovations and transition to the internet in order to maintain their relevance. (Remy et al., 2020 as in Fulton, 2022)

In the year 2019: Louis Vuitton Collaborated with game League of Legends. For the collaboration, Nicolas Ghesquière designed the Trophy Case of that year’s World Championship Finals of League of Legends in Paris. Along with the “real life” trophy, the creative designers of the French House, also created a line of digital assets to be bought in the game. (Salinas, 2021) in the year 2021, Louis Vuitton launched a video game named Louis. The game to celebrate 200th birthday of the founder of the brand. In the video, the players collect 200 candles in which there are 30 NFTs as collectible and each candle is a postcard that reveals history of brand and journey of its founder. A collaboration between Takashi Murakami and RTFKT Studios allowed Decentraland enthusiasts to enjoy a variety of sneakers that can be owned as NFT in their games. Burberry established a foothold in the metaverse in the year 2021, it unveiled

characters participating in the Blankos block party and other in-game items available for purchase as NFTs under its flagship title. (Ricci, 2021). Gucci introduced its inaugural non-fungible token (NFT) in June 2021, inspired by the video "Gucci Aria." The four-minute NFT, "Proof Of Sovereignty: A Curated NFT Sale by Lady Pheonix," aimed to engage consumers and support pandemic relief efforts. Christie's platform auction proceeds were donated to UNICEF USA for COVID-19 vaccine distribution. Gucci also collaborated with Offsetra to purchase carbon offsets. Collaboration between the popular virtual game Roblox and Gucci featured a Gucci Garden where players could purchase digital-only Gucci items, including eyeglasses, clothing, and handbags. (Brun, 2022). Ralph Lauren and the online gaming platform "Roblox" collaborated to create a virtual store where users could purchase clothing by the designer for their avatars. (Salinas, 2021). Players have the ability to acquire Balenciaga apparel and accessories, visit an in-game Balenciaga store, and execute custom Balenciaga dance routines within Fortnite. Individuals have the ability to modify their store appearance and submit photographs that may be showcased on digital billboards within the Fortnite town plaza. Karl Lagerfeld's debut NFT collection, exclusively available on the Dematerialised, features a cartoonised aesthetic and is backed by LUSKO, an energy-efficient blockchain. The collection includes a commitment to plant one mangrove tree for every purchase, as part of an initiative with Re:Earth. (Deane, 2022). Dolce & Gabbana showcased a bespoke collection of twenty wearable technology styles at the inaugural Metaverse Fashion Week, organized by Decentraland and UNXD. The brand also unveiled D&G Family, an exclusive Non-Fungible Token community, which offers exclusive shipments, events, and collaborations. Together with street artist Eric Haze, Jimmy Choo has introduced an NFT collection on Binance. In addition to an exclusive trainer design, the collection features 8,888 Mystery Boxes featuring high-heeled designs. Women for Women International, a charity that assists female survivors of conflict, will receive the proceeds. A substantial integration of philanthropy, digital art, and luxury fashion is represented by this partnership. (Ivelina, 2021)

3.2. Thematic analysis

Thematic analysis is a methodical way to discovering, analysing, and researching patterns in qualitative data, namely themes (Braun & Clarke, 2012). Thematic analysis enables the examination of present patterns and provides insights for future courses of action (Taylor & Usher 2001). It emphasizes meaning throughout the dataset, allowing researchers to identify common meanings and experiences. TA is not about identifying unique interpretations, but rather identifying shared characteristics in discussions or written works on a subject. Thematic analysis flexibility is largely due to its ability to be conducted in various ways, making it a versatile method. The technique employed in the current study uses the information available in data set as the base for developing codes and grouping codes into theme. The research make use of the inductive approach , is a 'bottom up' approach, and is driven by what is in the data. (Braun and Clarke, 2006).

The research begins with a comprehensive analysis of the data to identify key themes and areas. In the second stage initial keyword are identified to examine luxury fashion in the metaverse. The third stage involves the generation of codes, which help encapsulate the data's fundamental message. The codes are organized into logical categories, allowing for the recognition of patterns and relationships. The fourth phase involves theme development, categorizing codes to discern patterns and correlations. This helps in defining trends and patterns, to analyse the research objective . The thematic analysis concludes with the creation of a novel representation of the data. (Naeem et al., 2023)

3.2.1. Customer engagement Strategy and present position in of the luxury brands in metaverse .

The first theme address the brands strategy of luxury fashion that facilitated in engaging their customers in the metaverse (refer table 1). The theme retailing in metaverse and virtual identity explains the present status of luxury fashion in metaverse .

3.2.1.1: Theme :Customer Engagement.

Customisation, personalised experiences, enhanced narrative, social involvement, and gamification are all marketing methods that can be used in the metaverse to provide a dynamic blend of customer engagement that reaches

new heights. Table 1 discuss about various strategies used by the brands in metaverse.

Theme [↵]	Codes [↵]	Keywords [↵]
<ul style="list-style-type: none"> • Customer Engagement[↵] 	<ul style="list-style-type: none"> • Customisation & Personalisation[↵] 	<ul style="list-style-type: none"> • Avatars[↵] • Skin[↵] • Identity[↵] • Cocreation[↵] • Limit less Design[↵]
	<ul style="list-style-type: none"> • Enhanced Story Telling[↵] 	<ul style="list-style-type: none"> • Cultural Metaverse[↵] • Immersive Experience[↵] • User Experience[↵] • Multisensory experience[↵] • Virtual Influencers[↵]
	<ul style="list-style-type: none"> • Social Interaction[↵] 	<ul style="list-style-type: none"> • Community Spaces[↵] • Virtual Events[↵]
		<ul style="list-style-type: none"> • Participation in Events[↵] • Content Creation & Collaborations[↵]
	<ul style="list-style-type: none"> • Gamification as marketing[↵] 	<ul style="list-style-type: none"> • Reward system[↵] • Digital badges[↵] • Coupons[↵] • experiential shopping[↵] • Collectible(NFT)[↵] • Crypto Currency[↵]
	<ul style="list-style-type: none"> • Sustainability[↵] 	<ul style="list-style-type: none"> • 3D Fashion[↵] • Traceability & Transparency[↵] • Virtual Fashion Shows[↵]

Table 1: Themes and codes on customer engagement strategy of Luxury Fashion in Metaverse.

Skins, virtual garments and accessories, are commonly used in online multiplayer games to alter a player’s avatar’s weaponry or in-game appearance. Gamers often alter their appearance to “identify” with a character called avatar either due to personal resemblances or self-actualization pursuits. The cultural metaverse is an immersive and multi-sensory encounter that integrates real-world surroundings with computer-generated data, facilitating opportunities for education, entertainment, aesthetics, and escapism. AR storytelling is an effective method for constructing a fundamental cultural metaverse, with the factors of flow and education exerting the most influence (Yang, 2023). The metaverse offers marketers new opportunities for virtual fashion events and marketing campaigns, according to a McKinsey & Company (2018) paper. Augmented reality has enabled fashion designers to market their collections, creating immersive experiences for clients to browse 3D fashion shows and interactive campaigns. This technology also allows designers and luxury brands to create exciting virtual events. Gamification involves using game designs in non-game activities to engage participants. In marketing activities, strategies like engaging content, digital badges, avatar creation, and coupon distribution increase customer satisfaction and involvement on virtual platforms (Sangroya et al., 2021 and Wang et al., 2022 as cited in (Bousba and Arya, 2022)).

The fashion industry’s environmental impact, resource consumption, and refuse production are subject to scrutiny. The Metaverse offers prospects for sustainability initiatives to decrease online returns through the provision of virtual try-on experiences and a decreased dependence on physical products. Support for sustainable suppliers is facilitated by the metaverse via open-source repositories and the construction of sustainable brands. The transition

to digital formats, exemplified by the 2021 Helsinki Fashion Week, has substantially diminished carbon emissions and resource consumption. By minimising excessive production and optimising resource allocation, digital fashion weeks promote ecological, socially responsible, and fair-trade consumer practices. This environmentally conscientious strategy promotes consumer consciousness regarding their carbon footprint.

3.2.1.2: Theme : Retailing in Metaverse

The integration of non-fungible tokens (NFTs) into metaverse retailing brings an unprecedented level of virtual commerce to the table, fusing immersive purchasing experiences with digital ownership and one-of-a-kind collectibles. The following is how NFTs and retailing in the metaverse may intersect. Virtual stores can capture customer attention using visual and spatial analytics, speech recognition software, and simulation models, enhancing digital engagement and customer service. (Profumo et al., 2023).

Theme [↵]	Codes [↵]	Keywords [↵]
<ul style="list-style-type: none"> Retailing in Metaverse[↵] 	<ul style="list-style-type: none"> Virtual Brand Presence[↵] 	<ul style="list-style-type: none"> Immersive Environment[↵] Visual store fronts[↵] Virtual Try on [↵] Virtual Merchandising & Display[↵]
	<ul style="list-style-type: none"> Technological Advancement[↵] 	<ul style="list-style-type: none"> Infrastructure[↵] User Interface[↵] Augmented Reality[↵] Virtual Reality[↵] Digital Twin[↵] Blockchain Technology[↵] Artificial Intelligence[↵]
	<ul style="list-style-type: none"> Brand Engagement[↵] 	<ul style="list-style-type: none"> Association with self-perception[↵] Custom brand avatars[↵] Personalized outfits[↵] Exclusivity [↵] Authenticity [↵]
		<ul style="list-style-type: none"> Virtual Wardrobe[↵]
	<ul style="list-style-type: none"> Brand Collaboration [↵] 	<ul style="list-style-type: none"> Co-branded Virtual Spaces[↵] Games[↵] Influencer Marketing[↵]

Table 2: Themes and codes on current operations of luxury fashion brands in the metaverse.

The metaverse, a persistent, immersive, shared, three-dimensional environment, is expanding due to emerging technologies like AR, VR, blockchain, NFTs, and AI (refer Table no: 2). This creates a metaverse with potential but also raises concerns about privacy, security, and sustainability. Platforms like Decentraland, Sandbox, Horizon, and Fortnite are already in operation. (Bacher, 2022). The Metaverse's data can enhance shopping experiences by analysing customer journeys and interactions. This information aids in acquiring virtual assets, habits, and retention practices. Online shopping utilizes virtual businesses and shopping malls, allowing customers to browse, pick up items, and communicate with others. The metaverse allows individuals to construct experiences and play out their imaginations without physical limitations. (Breuer et al., 2007)

3.2.1.3 Theme : Virtual Identity

The Metaverse, enables individuals to modify their avatars to mirror their true selves, and has the potential to induce alterations in behaviour. (Hadi, Melumad and Park, 2023). It enables people to investigate aspects of their identity that might be impracticable to do so in the real world. By allowing users to adopt multiple identities, experiment with gender expression, and investigate virtual communities and subcultures, virtual environments foster a sense of identity fluidity and diversity (refer Table :3)

Theme [↵]	Codes [↵]	Keywords [↵]
<ul style="list-style-type: none"> • Identity[↵] 	<ul style="list-style-type: none"> • Avatars[↵] 	<ul style="list-style-type: none"> • Personalised Skin[↵] • Exclusivity[↵] • Self-Expression[↵] • Self Esteem[↵]
	<ul style="list-style-type: none"> • Cultural Metaverse[↵] 	<ul style="list-style-type: none"> • Aspirational Value[↵] • Culturally enhanced technological space[↵]
	<ul style="list-style-type: none"> • Escapism[↵] 	<ul style="list-style-type: none"> • Fantasy[↵] • Positive space[↵] • Attachment to virtual environment[↵]

Table 3: Themes and codes on creating virtual identity by luxury fashion brand .

By integrating cutting-edge technology with cultural spaces, the cultural metaverse enriches the user experience. Augmented Reality facilitates realistic interaction with digital objects and virtual environments, whereas immersive technologies transform cultural knowledge into interactive content, thereby transforming the way in which we interact with and comprehend our surroundings (Yang, 2023). Frequently, purchases of luxury fashion are motivated by individualistic concerns, such as the desire to manifest one's sense of self. Social comparison theory posits that individuals' purchasing decisions are influenced by the comparison they make with their desired image. Ko et al., (2017). Luxury fashion items serve as a means of escaping reality and reflecting one's individuality and personal values, thereby contributing to the formation of one's extended self.

4. CONCLUSION

Research on metaverse retailing and luxury fashion has revealed its transformative potential. The integration of immersive technologies and high-end fashion has created unique opportunities for individuals to express their identities and interact with cultural environments. Metaverse platforms allow users to interact with digital entities, blur-

ring the traditional boundaries between physical and virtual spaces. This presents a unique opportunity for luxury fashion businesses to revolutionize customer engagement. Ethical implications regarding data privacy, authenticity, and inclusivity are crucial for responsible and ethical use of these technologies.

The metaverse's convergence with luxury fashion signifies a dynamic and rapidly evolving domain with significant implications for the retail sector, consumer behaviour, and identity construction. Further interdisciplinary research could reveal new perspectives and potentialities for the trajectory of fashion within virtual environments.

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