

A Case Study of the Fashion Brands Marketing via Metaverse

Min-Su Kim¹, Younghee Noh²

¹Dept. of Clothing & Textile, Chungnam National University, Korea (lile81@naver.com), First Author

²Professor, Department of Library and Information Science, Konkuk University, Korea (irs4u@kku.ac.kr),
Corresponding Author

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ABSTRACT

The purpose of this study is to investigate the types and characteristics of fashion brands marketing via metaverse by analyzing such cases in the digital fashion environment. To this end, the concept and the current status of metaverse were examined by collecting relevant data from prior research, literature, and the domestic and foreign media's press releases. The cases of the fashion brands marketing via metaverse were classified into 4 types and 5 characteristics, respectively, and a plan was devised for the application of fashion brand marketing based on the following research results. First, fashion brands use metaverse or its relevant type in a complex manner. Second, the current fashion brands marketing via metaverse is composed of Virtual Worlds and lifelogging. Third, presence and interoperability were found to be the core characteristics of the metaverse marketing. Based on the research results, the fashion brands marketing via metaverse can be applied by focusing on Virtual Fitting services using the VR and AR technologies, considering the creation of added values through the development digitally scarce products, and implementing a strategy to promote the brand identity by combining storytelling reflective of the brand philosophy and the contents of metaverse.

1. Introduction

1.1 Background and Purpose

Dramatic changes have transformed the people's lives due to the 4th industrial revolution and the evolution of the global environment. Moreover, with the prolonged COVID-19 pandemic, both businesses and consumers have gained new experiences with expanded parts of their lives spent online and the introduction of IT technology in the consumer industry. The contactless online culture has rapidly permeated into the people's lives, and the services using virtual reality (VR) and augmented reality (AR) technologies have been applied across the education, entertainment, medical, and distribution industries. Consumers are no longer reluctant to accept a new culture that demonstrates

a higher level of IT technology convergence, and metaverse has emerged as a representative player of the virtual convergence. Metaverse, as a concept expanded from VR, is a three-dimensional virtual space where the virtual and reality interact. Metaverse does not simply refer to watching contents but has the characteristic of enabling the active engagement across various social and cultural activities within its platform.

The companies that were marketing through such existing digital media as social media started to use metaverse, and Hyundai Motor Company made it possible to test drive the Sonata N line on the metaverse platform Zepeto for the first time in the automobile industry. It also provided a service that created the avatar's virtual test-driving experience as content and shared it on the social media. CU, a convenience store brand of BGF Retail, also established a store in Zepeto to show a service that is linked to an actual store. Through such marketing activities, the brand tried to diversify the customer experience and improve intimacy.

The companies that previously used digital media such as social media services for marketing started to use metaverse for marketing, and the global fashion brands such as Gucci, Polo, and Zara set up virtual stores using a metaverse platform. The metaverse platform users create and personalize their own avatars, shopping at virtual stores to put branded products on their avatars. Furthermore, beauty and fashion brands have developed a virtual system that allows the users to test and try their products out without visiting their offline store. Amore Pacific has partnered with Perfect, a company specialized in artificial intelligence (AI) beauty tech solutions, to provide a service to its customers to experience a variety of virtual makeup products and receive customized product related recommendations via their Amore Mall app. Similarly, Nike has launched its Nike Fit app which converts the measurements on the customers' feet shape into a data set and recommends products that well fit the feet using the AR scanning technology. Furthermore, digital fashion brands using 3D designs have also appeared. For instance, Dress X provides an image of a customer wearing the design the customer purchased online when the customer uploads a photo of himself/herself after making the purchase. More fashion shows started to incorporate VR technology with the contactless trends. Taylormade's VR showroom and VR fashion show and Dior's a documentary filming the work sites of designers planning for a virtual fashion show are some of the examples.

As such, fashion brands use diverse types of metaverse experiences through digital media for marketing, and a new type of brand based on metaverse, digital fashion brand, is also appearing. Hence, it is necessary to analyze the cases of fashion brands marketing using metaverse and understand the types of services and their characteristics. Metaverse is largely divided into the 4 types of Augmented Reality, Virtual Worlds, Lifelogging, and Mirror Worlds (ASF, 2007). However, the recent cases of metaverse in fashion brands show a type of metaverse integrating the four. Nevertheless, prior studies on metaverse were conducted relatively recently with a narrow scope and limited focus on the fashion brands.

While a case study of virtual fashion industry of fashion brands through convergence with metaverse (Park, 2021) was carried out, it has limitations in that it failed to include new cases as it lacks the subdivision and combination of different types. Hence, this study analyzes the characteristics of metaverse in fashion brands by classifying such cases into 4 types to examine the characteristics in an effort to suggest the developmental directions of fashion brands via metaverse.

1.2 Research Method and Content

This study is consisted of a theoretical review and a case analysis based on the following steps.

First, previous studies, abstracts of academic conferences, and reports from companies and institutions were classified by the type of metaverse and used for a theoretical review to define the terms used for metaverse.

Second, the metaverse cases in fashion brands were collected through searching the keywords of 'Metaverse', 'Metaverse Fashion', 'Virtual Fashion', 'VR Brand', and 'AR Brand' online using Internet portal sites, such as Google and Naver, and conducting a literature search on digital fashion information media such as Firstview Korea and WGSN. Furthermore, in order to analyze the information on brand cases, the characteristics, type of service, and the price information of each case were analyzed by visiting their corporate websites, mobile applications, and social media.

Third, taking the steps above, the metaverse cases of fashion brands were classified to analyze the characteristics, and based on such results, practical suggestions were made on the directions of the metaverse related service planning and marketing for the fashion brands.

2. Theoretical Background

2.1 Concept of Metaverse

The word metaverse was first used in Stephenson 's 1992 novel, 'Snow crash,' combining the words 'Meta' meaning virtual and abstraction and 'Universe' meaning world and universe to refer to a virtual world that transcends reality. Yun et al. (2021) describe metaverse as a virtual reality for experiences and an empty world where a new reality can be created without the constraints of time, space, and resources. Similarly, Jo and Lee (2021) define it as a virtual space implemented by digital technology and connected by the Internet where users can interact with each other, Choi and Pyun (2021) express it as a space brought about by the development of digital technology where the users can interact beyond the real space, and Lee and Han (2021) perceive it as a value-creating world where the virtual and the reality coexist and where social, economic, and cultural activities are undertaken. Consequently, metaverse can be defined as a digital world where the reality and virtual are combined for interaction. Metaverse is a new world in digital media such as computer, smartphone, and the Internet, or "digitized earth", where people upload their daily lives onto Facebook and Instagram, etc., and play games online as a part of their lives (Apparelnews, 2021).

2.2 Technological Elements of Metaverse

Metaverse is a world created by combining the physical reality and virtual space through the immersive technology. Immersive technology is the tool of the metaverse, and the virtual worlds are material of the metaverse (Lee, 2021). Immersive technology is one which realizes virtual elements realistically, and helps the users to immerse themselves in the metaverse, and the virtual worlds

are virtual space necessary to visualize and experience the metaverse. Various recent platforms and services that represent the metaverse, such as social media and virtual offices, can be said to be virtual worlds.

Metaverse is widely used to mean a living-type and game-type virtual worlds where both real and unreal coexist, and is also based on the development of computer graphics and display technology. Second life, which was called the first metaverse service, was a simple 3D avatar chat game, but the current service crosses the boundaries of VR and AR, including XR (eXtended Reality) and MR (Mixed Reality) that naturally mix reality and computer graphics. As such, metaverse can be said to mean a virtual society with socio-cultural meaning built on the basis of underlying technologies such as XR and MR.

2.3 Classification of Metaverse Types

Among the previous studies classifying the metaverse types, Oh (2021) analyzed cases by classifying them into game-based, performance-based, entertainment-based, and social media-based, Han (2008) divided metaverse into Ludic Virtual World emphasizing fantasy, playfulness, and gaming and Social Virtual World highlighting substantiality, effectiveness, and networking, and Wi (2009) categorized the types into online game and fun and entertainment depending on the purpose of contents. Furthermore, the Acceleration Studies Foundation (ASF) suggests a classification type which can be commonly found in related studies. Metaverse, another world created by the conjunction of data, digital technologies, such as AI, VR, AR, and the real world (Kim, 2020), can be classified into four types in a broad sense. In fact, according to ASF, metaverse is divided into Augmentation and Simulation on its technical axis and Intimate and External on its content axis (Figure 1).

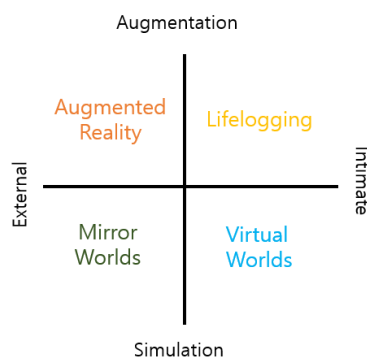


Fig. 1. Metaverse roadmap

AR is a technology that superimposes virtual objects on the real world through display devices, and contents are developed focusing on AR. Pokémon Go and Google Art & Culture are the two most well-known examples of the AR contents. Lifelogging is a technology intended to store daily experiences and information, enabling the users to record and share their everyday, including their hobby and health, etc. The social media services of Instagram and Facebook are representative

of Lifelogging which is a world created by adding fantasy elements to the real information. Mirror Worlds is a digital world in which information from the real world is transferred as is and most clearly shows the realism, reproducibility, and the information-oriented characteristics of metaverse compared to other types of metaverse. The key role of Mirror Worlds is delivering real world information by adding efficiency to real information. Google Map and Google Earth are some examples of Mirror Worlds. Virtual Worlds is a three-dimensional world digitally simulating a new space that does not exist in reality. Virtual Worlds can be largely divided into game and non-game types. Examples of Virtual Worlds include VR Lineage and Roblox for a game type and Zepeto and Secondlife for a non-game type.

In this study, the classification by the ASF is used to analyze the cases of the use of metaverse for the fashion brands. While there is a previous study (Park, 2021) analyzing fashion brands and metaverse convergence cases, it has limitations in that it failed to categorize the cases according to their metaverse type. Since various forms of complex business models of the metaverse market has emerged recently, this study aims to understand the changing environment of fashion brands marketing by categorizing cases of use of metaverse in fashion brands.

2.4 Characteristics of Metaverse

Dionisio et al. (2013) defined realism, ubiquity, interoperability, and scalability as the key factors for the metaverse to operate as a space with political, cultural, and institutional independence, and Ko et al. (2021) defined Canon, Creator, Currency, Community, Connectivity. Davis et al. (2009) argue that the key elements of the metaverse model, in which people interact with each other while overcoming physical and geographical limitations, are the metaverse itself, people and avatars, technical capabilities for implementation, and behavioral pattern. Park and Lee (2021) suggest that the new components of metaverse are personalization, which refers to the creation of services by the users for their own use by collecting, storing, and analyzing data in a culture where the users are invited to actively participate in the creation of new contents. Intercommunity means that the meaning of the analyzed contents from the user's point of view is shared with the other users or the external users.

Kim and Shin (2021) define distinctive characteristics of metaverse that set it apart from other online and mobile platforms using SPICE model. The SPICE Model is comprised of Seamlessness, Presence, Interoperability, Concurrence, and Economy Flow. Seamlessness is a property of memory and information to continue to flow within a digital platform. Within metaverse, the flow of various activities continues without disconnection; continuous flow of various activities, i.e., an avatar goes shopping after playing games and talks to other avatars. Furthermore, closing the platform will not delete previous history or information of the user. Presence is the sense of being present in the space to which the users do not make physical contact. When the sense of spatial presence is reduced, emotional immersion into a given situation also decreases; hence, the implementation technology of metaverse is focused on enhancing the sense of presence (Choi & Pyun, 2021). Interoperability is a complementary relationship between the real world and the metaverse through the shared information. Concurrence refers to an environment where multiple users can simultaneously have different experiences on a same metaverse platform. The users freely utilize information and

consume contents rather than passively following instructions provided by the provider. Economic flow means that there exists an economic flow in which the users trade goods and services without restrictions in line with the currency and transaction methods specified by the platform, and the flow is connected to the economic flow in real world.

In this study, cases of use of metaverse in fashion brands are categorized according to the metaverse platform characteristics of Interoperability, Seamlessness, Concurrence, Economy Flow, Presence as suggested by the SPICE model.

2.5 Metaverse Market Status

2.5.1 Metaverse business

Currently, the metaverse market is growing very rapidly and a global market research company, Emergen, expects the market size to reach \$ 828.9 billion in 2028 (Maeilkyungje, 2021). Similarly, a global consulting firm, PWC, predicts that the metaverse market size would reach \$ 476.5 billion in 2025 and \$1.75 trillion in 2030 from \$ 46.3 billion in 2019 (Chosunbiz, 2021).

The metaverse's representative business models can be broadly divided into the two types of a profit model through item sales and another profit model by providing the means of advertising and marketing. It has been reported that 55% of children under 16 in the United States signed up for Roblox, a metaverse profit model selling items, which has an average of 37.13 million daily users (Chosunilbo, 2021). In Roblox, game items can be purchased from the site and traded among users using virtual currency called Robux. In Zepeto, a virtual currency called Zem is used, which can be redeemed for cash after reaching a certain amount. The Roblox 's competitiveness lies in its unique operating method in which users create and sell games to other users. In fact, Zepeto, a representative domestic metaverse platform, also stands out in that both the creators and the users, without boundaries, produce and sell items. The latter profit model of marketing commission business model is mainly made up of collaborations between various brands and metaverse platforms. Fashion brands, such as Gucci and Polo Ralph Lauren, have implemented a virtual space in Zepeto, thereby increasing the user intimacy by making and selling items using the real products. Furniture brands such as, Casamia and Desker, are promoting their products by providing product images to a 3D interior platform, Urbanbase. Moreover, a US Hip-hop artist 'Lil Nas X' released a new song on Roblox, and K - pop artist 'Black Pink' held a virtual autograph session on Zepeto.

2.5.2 Generation MZ and metaverse business

The Generation MZ plays a vital role in the expansion of such business models and growth of the metaverse platform market. The Generation MZ, who are the main users of metaverse platforms, is familiar with digital devices (sometimes called 'Digital Native') and has a high utilization rate of online services. Without a rejection to form social relationships online, they spend a large part of their daily lives undertaking activities in the social media. Just as another self exists in such social media, they have a digital persona in metaverse and are not satisfied with the one-way service.

It is not exaggerating to say that the Generation MZ, who is accustomed to constructing and sharing stories in a virtual space while using it as a social medium, is meant to thrive in metaverse. Even today, they have significant purchasing power and their influence on economic activities is expected to increase further (Newsis, 2021). Hence, the importance of marketing activities suitable for the characteristics of Generation MZ cannot be neglected. Many global brands, including lifestyle brands, are implementing marketing activities for the Generation MZ who have been growing into an increasingly influential consumer class. For instance, they are actively reflecting the Generation MZ's characteristics of creating and sharing contents on social media in their marketing via metaverse as one of their means of communication. Likewise, metaverse can be used as a medium for brand promotion and advertisement in the fashion industry and create a new type of fashion business model. Traditional luxury fashion brands, such as Louis Vuitton and Burberry, are investing in marketing using metaverse to reflect such changes in the market environment.

2.5.3 Metaverse fashion market status

The 'Global Luxury Market Report' released by Bain & Company, a global management consulting firm, forecasted the luxury market sales to reach 360 billion to 380 billion euros by 2025, of which about 30% are generated through the online channels and about 70% will come from the Generation MZ (The Joongang, 2021). The Generation MZ is a group of consumers who spend a lot of time in the metaverse space and whose demand for consumable contents in the digital space is expected to also increase. A US investment bank, Morgan Stanley, forecasted that metaverse will create a new market with over a \$50 billion market size in the fashion industry within the next 10 years (Wikilaeks, 2022). Metaverse could be the next version of digital marketing, providing consumers with a more immersive three-dimensional experience.

Accordingly, the global fashion brands began to experiment with the possibility of metaverse marketing. Adidas, Armani, and Calvin Klein started selling digital fashion products on 'Secondlife', an online virtual platform, in 2007, and Diesel sold clothes and furniture through the mobile game 'The Sims' in 2012. Similarly, Louis Vuitton collaborated with the online game 'League of Legends' in 2019 to customize the game characters and design the game skin.

In the past, fashion brands sponsored celebrities through the one-way media for brand promotion; however, many fashion brands these days strategically encourage the consumers to participate in the metaverse contents to communicate with each other, promote their brands, and sell their products. The brands that had formed a link with their customers by holding digital fashion shows during the COVID-19 pandemic have devised metaverse strategies. For instance, Balenciaga has created and operated a metaverse department and Nike has been hiring digital sneaker designers. As global fashion brands actively incorporate metaverse, the domestic fashion market also began to embrace metaverse. 'Luckychouette', a domestic fashion brand for women, operates 'Luckytown', which shows 3D images of model wearing its products, and another domestic brand, 'Egoist', also introduced 'Metanation', a virtual reality showroom. MLB, a casual fashion brand, sells digital fashion products for avatars in Zepeto, and a fashion metaverse platform 'Fassker' introduced a virtual fitting service for the customers through the VR store and the 3D showroom (Money Today, 2022).

As such, the fashion brands that had led the early development of online commerce are now leading the development of the metaverse industry, actively using realistic technologies, such as AR and VR, to start new businesses in various forms.

2.6 Digital Marketing of Fashion Brands

The fashion brands marketing aims to pursue long-term profits by realizing customer satisfaction, reflecting the needs of customers more effectively than competitors (An et al., 2015). Companies focus on promoting their products by establishing various marketing strategies, considering the characteristics of market environment and trends in consumer behaviors. Fashion brands are not an exception; they also make great efforts for smooth interaction with consumers. Thus, marketing communication activities that inform the consumers of fashion products and motivate them to purchase are particularly important for the final sales of products. As the consumer group of fashion products expands to include the Generation MZ, fashion brands are introducing various ways of marketing through online media. In particular, as the traditional face-to-face promotion activities have become difficult to carry out due to the outbreak of COVID-19, the online PR promotion activities have been more actively undertaken. As the center of consumption and distribution has shifted to mobile platforms, efforts have been made to implement various strategies for digital media marketing both by global luxury brands and casual brands, and digital native fashion brands based on online have been emerging (Woo & Lee, 2021). In accordance with such changes in the marketing environment, studies on fashion brands marketing using digital media were conducted. Yang and Lee (2020), in their study examining digital strategy cases in fashion brands, demonstrate that many brands endeavor to interact with customers through experiential marketing activities using digital techniques. Shim and Kim (2021) investigated cases of online fashion communication of global luxury fashion brands in the midst of the outbreak of the COVID-19 pandemic and found that they attempt to communicate with consumers using contactless media that transcend time and space. In Im (2020)'s study on the use of Advergame by fashion brands, it was observed that games can increase consumer brand loyalty and enhance brand attitude.

Furthermore, with the advancement of the fashion brand promotion and service industry using metaverse based on digital platform, a number of related studies, including the study on the types and characteristics of the AR contents of fashion brands (Lee & Ku, 2020) and the analysis of the types and characteristics of AR-applied experiential VM (Choi & Lee, 2014) were conducted. Lee and Lee (2021) analyzed the characteristics of marketing communication using AR in the digital fashion and found that the AR-applied communication uplifts the sensory interaction by strengthening the bi-directional communication, thereby enhancing visual stimulation and immersion, and inducing interest. It is said to induce interest and induce sensory interaction. Choi and Pyun (2021) assert that brand experienced by an avatar in metaverse is also recognized by the actual user and sensual and behavioral experiences through an avatar have a positive effect on how the brand is perceived by the user.

A case study on the collaboration of fashion brands and metaverse was also conducted. Lee and Chang (2021) analyzed the method of using Gamification for brand experience in the metaverse environment into 4 experiential factors and 6 other components. Park (2021) examined the case

of virtual fashion industry of fashion brands through the metaverse convergence. However, the studies that specifically investigate the cases of the use of metaverse in the fashion brands marketing have not yet been conducted. Thus, this study aims to analyze the cases of use of metaverse in the fashion brands marketing with the analytical tools of the ASF metaverse type and the SPICE model.

3. Domestic and International Cases of Fashion Brand Marketing Using Metaverse

3.1 Collaboration of Metaverse Platforms and Fashion Brands

3.1.1 Gucci

In 2021, Gucci introduced Gucci Villa set in Florence, Italy, on the Zepeto platform (Figure 2). Sixty kinds of avatar items, including clothes and bags, were sold in the virtual space modeled after real world architecture, and users were able to try the items on the platform. Gucci 's Virtual Collection, which has the same designs of Gucci Collection in real world, can be applied to avatars on the platform. It is a marketing case using the metaverse's characteristics of interacting with the reality. Clothes and accessories including Gucci 's Virtual Collection and Doraemon X Gucci Collection were sold at a lower price than the actual product price, and the products worth several million won were sold at a price of several thousand won at Zepeto. The Zepeto users personalized their avatars using Gucci products and communicate with the other users by traveling around the Zepeto world. Gucci readily advertised its brand to the Generation M in their teens and 20's, who account for a large portion of the platform users, enabling them to enjoy the product and increase intimacy with the brand. While the Generation M does not have a significant purchase power for luxury goods, it was Gucci's strategy to increase the interest of the Generation M in Gucci brand through virtual experiences so they would make an actual purchase when they have the purchase power and preoccupy potential customers of their brand.

Furthermore, users of the Gucci Villa were able to communicate with other users from all over the world in spaces implemented on the platform, such as the Gucci Garden and Café. Moreover, Gucci also opened 9 exhibition rooms from the 13 rooms of offline exhibition 'Gucci Garden Archetypes' on the Zepeto, bringing about 630,000 cumulative visitors and sales of 90,000 virtual items (Newsdaily, 2021).

Gucci expanded the scope of use of metaverse and provided a virtual store tour service on their brand website where users can visually experience ready-to-wear products, accessories, and sculptures inside the virtual stores thereby promoting brand heritage and identity without the constraints of time and place.

Roblox, a global metaverse game platform, also opened virtual Gucci Garden for two weeks in May 2021 and allowed the users to purchase avatar items during the limited time period. At this time, Gucci 's Dionysus bag was sold at 80 Robux. However, since then, the resale price continued to rise, and the same bag was later sold for 35,000 Robux. Such cases exemplify the high interest the users have for Gucci and virtual products.



Fig. 2. Gucci

Available from Gucci (2022). <https://www.gucci.com>

3.1.2 Nike

Nike has restructured its organization to close small offline stores and focus on online sales. They are reorganizing their organization to focus on technology. As a means to transition towards digital platforms, Nike entered the metaverse market and collaborated with Roblox in 2021 for a virtual space, Nikeland, designed to be a customized brand space that combines sports and play by hosting sporting events and providing a user community in a virtual space (CIO Korea, 2021). At Nikeland, which is claimed to be the realization of a space full of creativity inspired by reality, users can both play and design games. In this case, the unique feature of Roblox that enables users to design games was fully utilized. While this free service will not directly generate revenue, it is expected to help generate future profits by increasing brand awareness among the Generation M. Besides, Nike's sneakers, clothing, and caps for avatars are also sold on the domestic metaverse platform Zepeto world. Nike also released a lookbook filming avatar models dressed in Nike's products.

3.1.3 Zara

In 2021, Zara launched its products made in collaboration with Adererror on Zepeto before they become available offline (Figure 3). On the day of the offline product launch, a long line was formed for purchase, and the product were also sold out quickly online. Zara is well known for its collaboration with famous designers for each season. Most of the products are sold out as soon as released to the market and are traded in the resale market. The collaboration products with Adererror were not an exception; however, the consumers who were not able to purchase the actual products were able to try and purchase virtual products on Zepeto world. Those consumers were vicariously satisfied and Zara promoted the collaborated products by launching them on Zepeto.



Fig. 3. Zara

Available from apparelnews (2021). <http://www.apparelnews.co.kr>

3.2 Collaboration of Virtual Game Platforms and Fashion Brands

3.2.1 Balenciaga

Balenciaga released its 2021 F/W Collection in a new video game ‘Afterworld: The age of tomorrow’ in December 2020 (Figure 4). Balenciaga ran the fashion show in a new way to meet the audience by inducing active participation of users for a new experience of interacting with the brand all along the journey inside the game. Balenciaga introduced their collection on the metaverse game platform where 50 avatar models, wearing the collection, explore the futuristic world of 2031. The users can choose a character and walk through 5 different zones to try the collection out and complete the game missions. In 2021, Balenciaga collaborated with Fortnite for the second time to temporarily open a virtual shop in the game community, allowing users to customize their game avatar with Balenciaga Fit clothes and items. Moreover, Balenciaga produced real clothes inspired by Fortnite, sold them in offline and online stores, and carried on a huge digital signage advertising campaign to promote and advertise the collection.

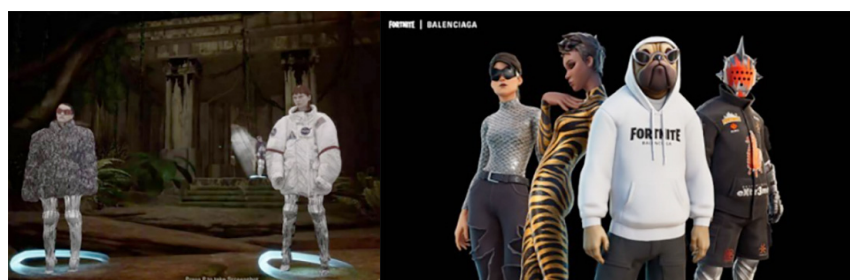


Fig. 4. Balenciaga

Available from Epicgames (2021). <https://www.epicgames.com>

3.2.2 Louis Vuitton

Louis Vuitton launched ‘Louis the Game’ to celebrate its 200th anniversary. In the game, the

users become the mascot Vivienne to complete the mission of collecting candles while traveling. They can personalize their game characters while playing the game and learn about the history of Louis Vuitton through the game items, which are virtual rewards the users would get in addition to the pleasure they have through the high-quality visual image implementation of 'Louis the Game'. Furthermore, inside the game, the users can get up to 30 NFT cards designed by Louis Vuitton 's House Artist 'Mike Winklemann'. The cards further motivated the fans of Louis Vuitton to play the game and gave Louis Vuitton an opportunity to promote its Heritage.

3.3 VR, AR, and Fashion Store

3.3.1 Dior

The fashion retail stores provide a new type of pleasure of shopping for the consumers by opening a virtual shopping mall, thereby making the consumers feel as if they were at the real shopping mall without ever leaving their home. The COVID-19 pandemic ushered in the new norm of everyday life online and rapidly spread the VR stores which provide the pleasure of offline shopping to the consumers, without requiring them to leave their home, through a virtual platform service that reproduces actual offline stores. Dior opened its VR Store online in February 2020 by reproducing their offline store on the Champs Elysees in Paris. The users can shop at the VR store as they do at the stores offline; they can click on a product image for more information about the product. When the shoppers like to purchase a product, they are escorted to an online channel through which they can make the purchase.

3.3.2 Nike

The VR stores enable virtual fittings for the consumers or recommend personalized products through the VR-applied mobile applications (Figure 5). In 2019, Nike launched Nike Fit, a scan service that measures feet using digital technology, such as machine learning, AI, and recommendation algorithms (CIO Koera, 2021). When the users activate the app and take a picture of their feet using a smartphone, the app scans the shape of the feet, collects data, and recommends Nike shoes that well fit the feet.

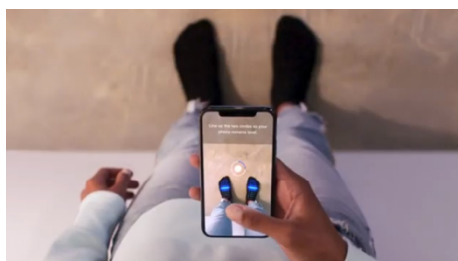


Fig. 5. Nike

Available from DesignDB(2019). <https://www.designdb.com>

3.3.3 Zara

In April 2018, Zara introduced its new collection at 6 stores in Korea using the AR technology for a limited time. When the users turn on the Zara AR app and scan an empty space in the store using their smartphone, a virtual model wearing the new collection would appear, pose, and walk. All clothes in the Zara AR app were available for immediate purchase through the app and the users were allowed to take pictures of their AR experience and share with others through social media. The AR experience does not only provide information on the clothes that a virtual model is wearing but also makes the users to have fun, become interested in the brand, and form a positive image for the brand.

3.4 Virtual Fashion Brand

3.4.1 The Fabricant

The Fabricant, which claims to be the world's first digital fashion house, sells the products that exist only in a digital environment, rather than digitally reproducing the products of other fashion brands. In 2019, it sold the first digital haute-couture dress, 'Iridescence', for \$9,500. This is a clear example of innovation for the fashion industry as it was the first blockchain transaction made for the fashion products. The Fabricant shows and sells designs in a 3D form before providing images converted into formats more suitable for social media. Through the sophisticated motion graphic work, it shows very realistic images of a person wearing clothes and expresses texture details of fabric, making a high sense of presence as one of its biggest advantages. They had collaborated with big fashion brands, such as Adidas, Puma, Under Armor, primarily to conduct digital fashion projects for the brand marketing purposes. The Fabricant demonstrates the expandability from the virtual world to the real world, and vice versa, by designing and fitting clothes as real as they exist in real world.

3.4.2 Dress X

As the convergence of fashion and NFT accelerated, various virtual fashion brands also began to form a new market. The Fabricant is a digital marketing tool for fashion brands whereas Dress X is a business model that generates revenue by selling virtual products directly to the users (Figure 6). Dress X is a relatively inexpensive fashion brand that sells virtual clothing for young consumer groups. The users can receive high resolution images of themselves wearing a design that they have selected online after uploading a photo of themselves to the website. They can also share the image on their social media. As the images show products that do not exist in real life, the design can be expressed more aesthetically and uniquely. Because price does not play a significant role here, various materials and designs, which would not have been considered in real life, can be tried. It is a business model that reflects the psychology of the general public who want to enjoy a different lifestyle, and it is especially popular among the Generation MZ who tend to

express themselves as another character in metaverse (J. Kim, 2021). Furthermore, it contributes to the sustainability of the fashion industry as it reduces environmental pollution factors associated with the manufacturing process of traditional fashion products and has the advantages of being able to strategically concentrate time and resources on designing for prototype development.

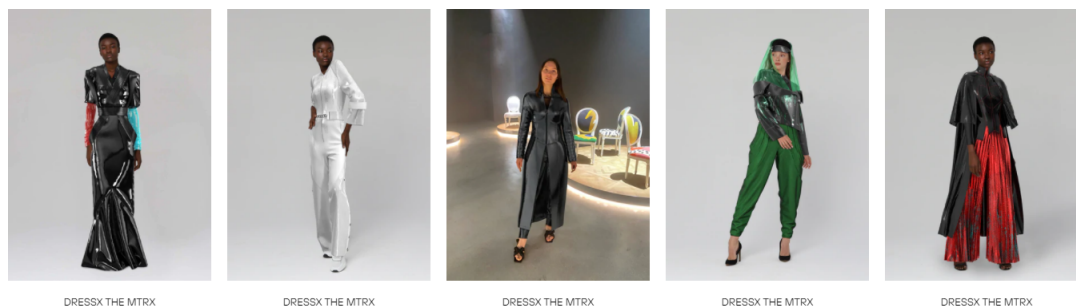


Fig. 6. Dress X
Available from Dress X (2022). <https://dressx.com>

4. Comparative Analysis of Metaverse by Type and Characteristic

The table below illustrates the results of the comparative analysis that examined cases of the use of metaverse in brand marketing by the type and characteristic (Table 1).

Table 1. Comparison of Metaverse Marketing Cases in Fashion Brands

		Gucci	Nike	Zara	Balenciaga	Louis Vuitton	Dior	The Fabricant	Dress X
4 Types of Metaverse	Virtual Worlds	○	○	○	○	○	△	○	○
	Mirror Worlds	○	X	X	X	X	○	X	X
	Augmented eality	X	○	○	X	X	X	X	X
	Lifelogging	○	○	△	△	△	X	○	○
Metaverse Characteristics	Seamless-ness	○	○	X	△	○	X	X	X
	Presence	△	○	○	△	△	○	○	○
	Interoperability	△	○	○	○	△	○	△	○
	Concurrence	○	○	X	X	X	X	X	X
	Economy Flow	○	△	△	X	X	X	○	○

Gucci’s case is an example of a complex application of the three types of metaverse – Virtual Worlds, Mirror Worlds, and lifelogging – among the 4 types of metaverse. The case of Gucci can be classified as a Mirror Worlds as the virtual space reproduces the actual Gucci Villa and Gucci Garden Archetypes in Italy for the user experience. It also has the characteristics of Virtual Worlds as it sells digitized products of real products in a virtual space, provides services that avatars can experience, and shows the brand’s identity through virtual stores. Furthermore, it shows the

examples of Lifelogging as well in that the users communicate with other users in the virtual gardens and Café in the Gucci Villa, personalize their avatars with Gucci products, and travel throughout the Virtual Worlds. Gucci is an exclusive example of the most diverse and complex fashion brand metaverse marketing with strong Seamlessness, Concurrence, and Economy Flow characteristics and relatively weak Interoperability characteristic of metaverse.

Nike's is a composite case of Virtual Worlds, Augmented Reality, and Lifelogging. The case can be categorized as augmented reality as it provides virtual fitting services and offers customized recommendation for products through its VR app. On the other hand, it has the characteristics of Virtual Worlds and Lifelogging in that the users can communicate in and enjoy the virtual playground created on its metaverse platform. Indeed, its various approaches toward metaverse - it uses metaverse as a marketing tool as well as a service platform to help consumers purchase products using VR technology - and the fact that it shows all of the five characteristics of metaverse relatively evenly differentiate Nike's case from that of other brands.

Zara's can be considered as a Virtual Worlds type as it launches the digital clothing products in collaboration with Zepeto and uses them for marketing purposes. At the same time, it also has the characteristics of augmented reality in that it virtually creates a model wearing the products via its VR app. Unlike the brands that use the metaverse to promote their brand identity, Zara uses metaverse technology as a tool to effectively promote its seasonal products. That is, Zara uses metaverse to attract the customers to make purchases by virtually reproducing real products, displaying the characteristics of Presence and Interoperability more prominently than the other characteristics of metaverse

The cases of Balenciaga and Louis Vuitton can also be regarded as Virtual World in that they show their brand through collaboration with game platforms; however, they also show the characteristics of Lifelogging in that they both have a user community inside the game. The two cases show Interoperability, Seamlessness, and Presence characteristics among the characteristics of metaverse.

The cases of The Fabricant and Dress X can be classified as Virtual World in that they produce digital clothing and sell photos of buyers virtually wearing their products. However, they also show the characteristics of Lifelogging as the buyers use the photos to make their own story and share with others through social media. These cases exhibit the characteristics of Presence, Interoperability, and Economy Flow.

5. Application Measures for Fashion Brands Marketing via metaverse

5.1 Development of Various Digital Fashion Products

Virtual Worlds was observed to be the type of metaverse most widely used among the cases analyzed. Gucci, Nike, Balenciaga, and Louis Vuitton promote their brand identity and communicate with potential customers through their own virtual reality spaces. However, emotional and cognitive experiences within metaverse have not yet been verified to have a significant effect on the users' brand related attitude. Moreover, positive brand experiences in metaverse may not lead to actual

purchases of the brand products. In fact, not all of the products can be introduced through a virtual platform and generating profits from digital product has a limit.

Consequently, creating added values through the development of customized products only for avatars in the virtual space should be considered. In fact, the brand digital fashion products currently sold on metaverse platforms are not regularly updated and lack diversity. Without updating new products, it is difficult to lead to a repurchase by users who made a purchase out of curiosity. Hence, it seems necessary to develop exclusive fashion products only for the digital platforms to enhance product competitiveness and implement a pricing strategy to drive brand differentiation.

Furthermore, the case of Dress X clearly demonstrates the existence of a demand group for digital product images. In these days, consumers actively express their identity through social media and take pleasure in sharing their daily experiences with others. Furthermore, they do not hesitate to show their consumption patterns with the spread of ostentatious 'Flex Culture'. For the consumers, posting photos of wearing new products on social media has become a common way to have fun; they are willing to pay for a photo of a product even if they do not actually own the product. In particular, fashion products have a short fashion cycle and their time in actual use is also short. Indeed, purchasing a photo of wearing fashion products can be an effective way to satisfy the desire of consumers who want to 'experience' the products without having to 'own' them. Hence, it is vital for fashion brands to expand the scope of digital product image service which digitally reproduces actual products and sells buyers' own photo wearing the digital products.

5.2 Enhancement Service for Customer Experience Through Realistic VR and AR System Development

Many brands have made attempts to provide their customers with the 3D Virtual Fitting service using VR and AR. These attempts should not merely be a one-off event and such Fitting System should become an effective tool for making purchasing decisions. When buying clothes online, the consumers often have trouble choosing the correct size and fit. The photos of models wearing products definitely stimulate consumers to the products; however, at the same time, they are also the main cause of purchase hesitation and product returns. Considering the finding that online return rate is at least 20% higher than that of offline shopping (Fobes, 2020), the fact that the consumers are not able to physically try on products before they purchase seems to be a major downside of online shopping. To improve such drawbacks, brands need to focus on Virtual Fitting services using the VR and AR technologies. Until now, brands have often used the VR and AR systems for one-off purposes to arouse user interest in their products or promote their brands. However, since Virtual Fitting is a core technology of the future shopping environment, the brands should actively implement a Virtual Fitting System that can 3D Scan the users' body and provide a sense of presence through high quality images of fashion products in order to help the users make better purchase decisions while increasing the brand reliability. Through a Virtual Fitting System, the brands can expand their business area to include Customizing Service by collecting and analyzing the users' personal information, such as their body size and preferred style, and offering personalized recommendation for the users.

5.3 Developing Storytelling Reflecting Brand Philosophy

In the metaverse environment, a brand exists as a creator of its own culture and its space in metaverse acts as media, rather than a virtual billboard, that conveys the brand's value. At the same time, a brand should also act as an entrainer providing fun experiences to its customers by developing various contents. The contents that pursue simple pleasure, without showing the brand's identity, would not deliver a meaningful message for the consumers. Today, consumers consider the ethical and social values of a product in addition to its physical value. For instance, the fashion industry currently faces ethical challenges, and digital fashion products can be differentiated from physical products from the perspective of sustainability. Dress X explained the eco-friendly effects of the digital fashion products by comparing them with the actual fashion products which consumes 2,700 liters of water just to produce a single tee shirt. It can be considered as an example of positively approaching the consumers by adding a new value for the digital fashion products with the brand philosophy of sustainability. In this way, fashion brands can promote their brand identity and increase brand intimacy among the Generation MZ - the largest use of metaverser group - by storytelling their brand philosophy using metaverse contents.

6. Conclusion

Below are the results of this study conducted to examine the cases of use of metaverse in the fashion brands marketing to comparatively analyze them based on the 4 types and 5 characteristics of metaverse.

First, the fashion brands were observed to use 2 to 3 types of metaverse in a composite way to advertise their brand identity and promote their products. In particular, Gucci and Nike actively used metaverse through collaboration with platform companies and internally developed metaverse map. Furthermore, Balenciaga and Louis Vuitton have developed their own games containing their brand story while simultaneously collaborating with game platform companies.

Second, the fashion brands' use of metaverse marketing was formed with a focus on Virtual Worlds and Lifelogging. All of the eight cases studied in this study include the virtual world type, seven out of which are Lifelogging. In a VR-based platform, users do not acquire information unilaterally, but rather create a unique worldview by forming another self in metaverse. The core of metaverse marketing lines in that brands provide a space with brand identity, and users communicate with the others by sharing and reproducing the contents from the space.

Third, presence and interoperability appeared as the main characteristics of metaverse for the fashion marketing; in all eight brand marketing cases, the two factors were found in common. Presence is important as most fashion brands create a virtual space and metaverse to promote their products. Interoperability may not be a key factor in traditional marketing where the boundary between information providers and consumers is clearly set; however, in digital marketing via metaverse, it is an essential factor which forms a virtual loop through information reproduction.

The suggestions for metaverse marketing of fashion brands based on this study are as follows.

First, the brands need to focus on the virtual fitting services using the VR and AR technologies. The services should help the users make smart purchasing decisions with a sense of reality which would enable the users to feel as if they were really wearing the products while recommending or producing customized products by collecting the personal information of the users.

Second, the creation of added value through the development of digitally scarce products should be considered. It is necessary to develop exclusive digital fashion products to enhance the product competitiveness and/or expand the scope of digital product image service which digitally reproduces actual products and sells the buyers' own photo wearing the digital products.

Third, the space in the brands' metaverse should convey the brand's value while providing fun experiences to its customers by developing various contents. Fashion brands should also implement a strategy to promote their brand identities by combining storytelling containing the brand philosophy and the contents of metaverse.

In this study, cases of metaverse marketing for fashion brands were analyzed based on the literature research and theoretical considerations, and the suggestions for the application of metaverse marketing to fashion brands were made based on their results. However, this study has some limitations in that it did not reflect the perceptions of the consumers using the metaverse. Hence, it seems that it would be necessary to investigate the consumers' perceptions towards their metaverse platform experiences and carry out future research on the relationship among the metaverse marketing, brand awareness, and the intention to purchase brand products.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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