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Global Fashion Brand Non-Fungible Token (NFT) Application Case Study

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Abstract

Covid-19 is rapidly changing the global society. In particular, as the online connected world has become more important in recent years, new communication methods such as VR, AR, and metavers e have emerged as global trends. As social interest in technologies such as metaverse, blockchain, and NFT continues to grow, this study aims to understand the concept of NFT, which is being illu minated as a global trend keyword, and to examine the current status of the global fashion industry. As a result of examining NFT application cases of fashion brands that have grown rapidly since Covid-19, the use of NFT in the global fashion industry can be largely classified into three categor ies - Collection and Investment Type, Game Type NFT, Marketing and Event Type NFT. Based on this, We expect that this study will be used as basic data to actively utilize NFT, which is still in its infancy, to prepare a plan to revitalize the domestic fashion industry.

Keywords: Non-Fungible Token, Metaverse, Block Chain, Global Fashion Brand

1. INTRODUCTION

Covid-19 has become an opportunity to rapidly transform the world into a digital society. In particular, as social exchanges have been cut off for several years, it has become a transition period in which the online connected world becomes important, and new communication methods such as VR, AR, and metaverse have emerged as global trends. Non-Fungible Token (hereinafter referred to as NFT) is also attracting great attention around the world by being linked with the virtual digital platform, Metaverse.

As such, social interest in technologies such as metaverse, block chain, and NFT is continuously increasing. Therefore, this study aims to study the theoretical consideration of NFT, which is highlighted as a global trend keyword, the current status of the global fashion industry, and the application of NFT in the fashion industry. Based on this, it is expected that this study will be used as basic data to actively utilize NFT, which is still in its infancy, to prepare a plan to activate NFT in the domestic fashion industry.

2. THEORETICAL BACKGROUND

2.1 NFT Concept

NFT means 'Non-Fungible Token', and refers to a token that represents a digital asset with scarcity. NFTs utilize block chain technology, but unlike existing virtual assets, they are characterized by the fact that they

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are not interchangeable because they give digital assets a separate and unique recognition value. It is a means of digitally tokenizing existing assets such as games, art, and real estate by clarifying asset ownership. The beginning of NFT is considered 'CryptoKitties' developed by startup Dapper Labs in 2017, which is a game in which users create their own rare cat by breeding cats with NFT properties. In particular, at the end of 2017, the game's digital cat attracted attention when it was traded for \$110,000 (about 120 million won). Since 2020, Dapper Labs has partnered with the National Basketball Association (NBA) to provide an NFT trading platform, 'NBA Top Shot', where users can watch short edited videos of highlights of famous players. Dapper Labs has signed a license agreement with the NBA and is making and selling NFTs in limited numbers to maintain their scarcity[1].

Furthermore, NFTs stored as data contain information about the owner, a unique hash of the token, and metadata of the asset. Since all details of transactions issued in NFTs are recorded and distributed in the blockchain network, forgery and alteration are impossible and asset tracking is easy [2].

Due to these characteristics, interest in NFT is growing among young people, and it is used in various fields such as investment and hobby beyond simple fashion, and the market is rapidly expanding.

2.2 NFT Preceding Research Status

In Korea, NFT is applied to various industries such as games, arts, and finance, but each institution (KIPO, Korea Arts Management Service, Korea Internet & Security Agency, etc.) finds it difficult to define and regulate in a single way, so research tailored to the characteristics of each field. is showing a spiral movement. Table 1 shows the contents of NFT-related research according to the characteristics of each institution in Korea [3].

Table 1. NFT-Related research according to the characteristics of each institution in Korea

Research Institute	Research Content
Patent Office	Intellectual property issues related to NFT
	Liability issues of NFT trading platforms
Arts Management Support Center	NFT art market basic research and institutional research Legislative and policy proposals to resolve disputes between NFT operators, creators, and consumers
Korea Internet & Security Agency	Current status and legal and institutional issues related to NFT and Security Token (STO)
National IT Industry	Legal system research for NFT regulation improvement and
Promotion Agency	blockchain promotion
Financial Services	Whether virtual assets are regulated according to the way NFTs are
Commission	utilized

In domestic academic research, although research related to NFT is in progress, related research in the field of fashion industry is very insufficient. There are no dissertations related to the NFT fashion industry yet, and only one or two studies have been published in academic journals. Therefore, since NFT can become an important market for the fashion industry in the future, academic research and professional research in related fields are urgently needed.

3. STATUS OF THE GLOBLA NFT FASHION INDUSTRY

NFT is gradually began to be exposed to the general public as millennials, jets, and alpha generations posted pictures of themselves wearing virtual 3D clothes released by luxury fashion brands on social media. And it is analyzed that there is a consumer's belief that a brand will gain a new status by consuming expensive items to become part of its culture, heritage, or unique story. Accordingly, luxury fashion brands such as Louis Vuitton, Burberry, and Gucci are actively participating in NFT fashion production [4].

According to KOTRA Overseas Market News, NFT sales, which were only \$94.9 million in 2020, soared

to about \$24.9 billion in 2021. In March of last year, the NFT of "Everydays: the First 5000 Days", a collage work by digital artist Beeple (real name: Mike Winkelmann), was auctioned at Christie's for about \$69.3 million. Furthermore, the first tweet left in 2006 by Jack Dorsey, founder and CEO of Twitter, sold for about \$2.9 million, showing explosive growth in 2021. Since then, companies in the film industry (MGM), fashion industry (Nike), Adidas, Burberry, sports industry (National Basketball Association, NBA), and automobile industry (Alfa Romeo) have also entered the NFT business and these mega companies jumping in has accelerated the incorporation of NFTs into the mainstream market [5].

Also, the NFT global fashion brand market is growing rapidly. Among them, Nike recorded \$185.26 million (approximately KRW 248 billion), greatly overwhelming its competitors in fashion and entertainment, media, automobile, and liquor brands. According to data collected by NFT data analyst firm NFT Gator, Nike boasts the highest NFT yield in any industry after acquiring virtual sneaker company Artifact (RTFKT) in December of last year. It is the 'Clone X' collection that Nike made a notable profit with Artifact. In addition to a total of \$779.08 million, it received royalties of \$38.95 million as tax on the secondary transaction. The 'Monolith (MNLTH)' collection, which was released after that, also recorded revenue of \$ 242.19 million and high royalties of \$ 24.22 million, and if you add all of Nike's NFT revenues, it amounts to \$ 185.26 million. It can be seen that Artifact, which specializes in virtual apparel and shoe design, has had a tremendous effect on Nike. In addition, Nike is concentrating on strengthening market competitiveness by opening 'Nike Land' in cooperation with Roblox, a metaverse game platform [6].

In October, 2022, Dolce & Gabbana made a total of \$25.65 million (approximately KRW 34 billion) in NFT revenue with the 'Collezione Genesi' collection, which connects the physical and metaphysical aspects of fashion. Tiffany earned 12.65 million dollars (approximately 17 billion won) by selling 250 pendants in a limited edition with the "NFTiff" collection modeled after "Crypto Punks." Following the launch of 'Gucci Garden' on the Metaverse, Gucci took fourth place with the 'Gucci Queen Be Dionysus' bag, which was released as a limited edition, with \$11.56 million (approximately KRW 15.5 billion), and Adidas' 'Into the Metaverse' collection [7]. Table 2 shows global fashion brands NFT- Nike, Dolce & Gabbana, Gucci, Tiffany.

Nike Dolce & Gabbana Gucci Tiffany

'Clone X' Collection Collection Genesi' Collection Ge

Table 2. Global fashion brand NFT

Image source: https://www.ddengle.com/blockchainnews/16376289

The interest in luxury brands entering the metaverse and the scarcity of products is due to the increasing number of users who want luxury goods in a life that has moved to a 3D digital world. Luxury brands are entering the NFT market as a future value that promotes their brands as the Z generation's entry into the metaverse accelerates. Louis Vuitton is moving its brand strategy to the digital world, such as creating a game app, and also sold collaboration products with its brand logo in collaboration with game companies. Burberry also launched an online game and let you customize your avatar. Balenciaga released a new fashion show in the form of a video game and decorated it so that avatars could try it on, and Nintendo also released a new product in collaboration with a game company [8].

4. NFT APPLICATION CASES AND TYPES OF GLOBAL FASHION BRANDS

4.1 Collection and Investment Type NFT

For the MZ generation, who value and invest in the scarcity of works, NFT fashion is becoming an object of collection for investment. Since NFT fashion is a digital asset, you cannot try it on directly, but you can take a digital wearing shot online through your avatar or virtual reality (VR), and you can create additional benefits through the process of reselling it like a work of art [9][10].

As shown in Figure 1 is the 'Iridescence' dress designed by Fabricant. The dress sold for \$9,500 on a digital-only blockchain, drawing attention as the world's first digital-only dress. The first blockchain transaction, this unique garment is valued as a trackable, tradable and collectible piece of digital art auctioned through Portion [11]. In October 2021, Dolce & Gabbana's NFT debut collection, 'Collezione Genesi <Figure 2>', broke the record in the NFT world by posting a successful bid of more than 1885, 73 ETH (equivalent to about \$5.6 million). The collection, comprising a total of nine pieces, was created in exclusive collaboration with UNXD, a marketplace curating digital luxury. The clothes in the haute couture collection, such as Dolce & Gabbana's Alta Moda, Alta Satoria, and Alta Gioielleria, are compared to works of art in a museum that handles both digital and physical works, It has been evaluated as a masterpiece that connects the metaphysical world [12].



Figure 2. Dolce & Gabbana NFT Collection Image source : https://unxd.com/drops/collezione-genesi

4.2 Game Type NFT

As traditional offline marketing has reached its limits due to Covid-19, there is an intention to actively utilize the metaverse game platform as a new marketing tool, and from the game industry's point of view, collaboration with luxury fashion brands enhances the image of games. As an example of this, Louis Vuitton joined hands with Riot Games in September 2019 to release League of Legends (LOL), NFT virtual items</ri>
Figure 3>. A total of 47 limited-edition items including clothes, shoes, bags, and accessories were sold out within an hour of being released [13]. Also, in 2021, Louis Vuitton's mascot, 'Vivienne', launched NFT, which contains an adventurous journey to seven regions around the world to collect 200 candles symbolizing the 200th anniversary of the founder's birth <Figure 4> [14].

In 2022, Burberry announced the launch of the NFT collection by introducing the limited-edition Burberry Blanco NFT character 'Minny B' wearing the TB summer monogram pattern on the body of a unicorn conceived from the house code 'Animal Kingdom' <Figure 5 > [15].

4.3. Marketing and Event Type NFT

Recently, NFT, which is expanding its field to art, finance, sports, game, and distribution, is considered a representative IP business. This is because popular IPs such as webtoon scenes, characters, and sports players are issued as NFTs. Alternatively, companies in various fields are using their own characters and other IPs as NFTs for marketing purposes. Since each NFT is given a unique code linked to the blockchain, each NFT cannot be replaced with another token. The NFT and a specific digital file are matched one-to-one, and through this, it is possible to prove that the file is the original. Since ownership and transaction details are specified on the blockchain, it can also be used as a digital proof of ownership. In other words, if you purchase an NFT,

you can have the trust that you are purchasing the original, not a copy, and based on this, you can freely trade the IP of digital files [16]. Companies can regularly release new NFTs or content, promote community participation by users, generate continuous revenue, strengthen brand influence, and generate revenue. To this end, many companies are focusing on updating new series centered on collectable NFTs and launching collaboration NFTs through collaboration with various influencers and companies. This is because the brand value is further enhanced if customers have more privileges and rights to participate through NFTs supported by various events and promotions.

Ultimately, in order to create a sustainable business environment where brand influence and customers are combined through NFT, all processes must be carefully designed such as a reliability and novelty through NFT, trendy technology and creative design and concept, community building to increase customer contribution, and blockchain technology and business model establishment [17].

As attention to NFTs has increased, it is easy to publicize the brand. As it is combined with augmented reality (AR) technology that allows users to virtually wear products, it is becoming one of the experiences that breaks down the boundaries between online and offline. In fact, 'Gucci' introduced a variety of products by launching the NFT of the 'Super Gucci' project, which collaborated with NFT startup Super Plastic last year, and the Gucci Grail NFT collection, which collaborated with NFT company 10KTF this year <Figure 6> [18].



Figure 3.
Louis Vuitton,
'League of Legends'
Image source:
https://hypebeast.com/2
019/12/league-oflegends-louis-vuittonapparel-collaborationcollection-accessories



Figure 4. Louis Vuitton, mobile game 'LOUIS: THE GAME'



Figure 6. Gucci Grail NFT collection Image source: http://m.apparelnews.co.kr/news/new



Figure 5. Burberry x Blankos Block Party © Courtesy of Burberry / Mythical Games Image source: https://www.wwdkorea.com/news/articl eView.html?idxno=3119

An official from a domestic fashion company said, "The use of NFTs by fashion companies is diverse, such as digital warranties for the purpose of preventing counterfeiting or a kind of financial role that gives value to digital fashion." As much as we are doing, we expect the related market to expand," he said [19]. As such, the use of NFT by global fashion brands is increasing every year, and this is considered to be because NFT is acting as an important keyword in increasing corporate awareness and value in many ways.

5. CONCLUSION

So far, we have reviewed the theoretical background of NFT and the current status of NFT in the global fashion industry, and analyzed the application form of NFT in global fashion brands. As a result of examining NFT application cases of fashion brands that have grown rapidly since Covid-19, the use of NFT in the global fashion industry can be largely classified into three categories. The first is the role of finance corresponding to digital assets, which is a collection and investment type NFT: Because NFT information is recorded on a

blockchain, ownership, transfer, and retention records are clearly traced. In addition, authentication and transaction of digital ownership are transparent because counterfeiting and duplication are difficult. In a situation where transparency is becoming more and more important today, there are many evaluations that it is the most suitable technology. The second is a game-type NFT, which is used in various fields such as game items, music, information, piece investment items, videos, and photos: Through this, new business models and markets are steadily being activated, and strategies to secure loyal customers are also pouring out. Finally, marketing and event-type NFT: Companies are using NFTs as brand marketing to regularly release new NFTs or contents and to generate continuous profits by promoting community participation by users.

We expect that this study will be used as basic data to actively utilize NFT, which is still in its infancy, to prepare a plan to revitalize the domestic fashion industry.

REFERENCES

- [1] Naver Encyclopedia, NFT (Dictionary of current events, pmg Knowledge Engine Lab)
- [2] S. J. Lee, H. S. Lee, H.Y. Lee and E.M. Cho, "Implementation of a webtoon transaction and profit distribution system using NFT", *Proceedings of the Korea Information Processing Society Conference*, p. 341-343, 2021.
- [3] H.J. Choo, "A Study on the Classification and Operation Case of NFT Art Platform", *Hongik University Graduate School of Fine Arts, Master's Thesis*, Art Planning Major, 2022.
- [4] D. H. Kim, and S. H. Hong, "Pay attention to the future money clip", Metaverse branch industry. *Fortune Korea*. 2022.
- [5] D. Park, "Online resell platform launched NFT by stealing US Nike trademark and image, sued for trademark infringement", KOTRA Overseas Market News, 2022.
- [6], [7] https://www.ddengle.com/blockchainnews/16376289
- [8] M. H. Kang, "The luxury brand that will use the 'Metaverse Crown'... Let's gather, Forest of Luxury Talk+]", Seoul Newspaper, 2022.04.05
- [9] Y.J. Yoo and J.H. Choi, "Types of Utilization and Inner Value of Non-Fungible Token (NFT) Fashion", Journal of the Korean Society of Costume Online ISSN 2287-7827. Vol. 72, No. 5 p23. 2022.
- [10] Miaoyihai Liu and Jeanhun Chung, "A study on the applicability of interactive technology in VR video content production", *International Journal of Advanced Smart Convergence Vol.11 No.2 71-76*, 2022.
- [11] https://www.thefabricant.com/iridescence
- [12] H. G. Park, "Dolce & Gabbana, NFT, 'Collection Genesis' \$5.6 million auction /handmade sweat/". *Korea duty free news*. 2021.
- [13] https://hypebeast.com/2019/12/league-of-legends-louis-vuitton-apparel-collaboration-collection-accessories
- [14] Y. H. Choi, "Louis Vuitton unveils mobile game 'Louis: The Game' in celebration of the 200th anniversary of the founder's birth", HYPEBEAST, 2021.8.2. https://hypebeast.kr/2021/8/louis-vuitton-200th-anniversary-mobile-game-release-date-birthday
- [15] S. J. Yeom, "Burberry launches new NFT collection Burberry x Blankos Block Party New NFT collection and social space launch", 2022.06.21 11:59. https://www.wwdkorea.com/news/articleView.html?idxno=3119
- [16] Y. H. Jeong, "MZ generation attracted to NFT.. However, marketing requires a long-term approach", *The Dong-A Ilbo*, May 26, 2022.
- [17] https://luniverse.io/luniverse-nft-marketing-strategy/?lang=ko
- [18] J. S. Lee, "Fashion Industry, Entering the 'NFT' Market One after another", Apparel News, July 14, 2022.
- [19] B. H. Moon, "Fashion, into the NFT craze", fashion seoul, December 21, 2022.