Application of NFTs in Luxury Brands

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Abstract: This essay aims to investigate the primary beneficiaries within the fashion industry concerning NFTs, elucidate how luxury goods can derive benefits from NFTs, and discern potential future applications of luxury brand- related NFTs. Employing methods such as textual analysis and case studies, this research selects prominent luxury cases, exemplified by the likes of Burberry, Balmain, Givenchy, Louis Vuitton, to analyze luxury brands' current utilization of NFTs. Moreover, the study identifies drawbacks and outlines the future research direction. Additionally, through semi-structured interviews, the paper engages with three relevant industry practitioners to acquire supplementary data. From the investigation above, one of the utmost features of NFTs is that it can guarantee the property rights of virtual assets, thus ensuring the viability of virtual product transactions. A reverse analysis concludes that products with value and scarcity are transformed into NFTs to maximise their advantages. The rise of the NFT art market is a substantial evidence of this argument. As a result, luxury brand are best suited to launching NFTs and are more likely to attract buyers to consume and collect them than other categories in the fashion industry.

Keywords: Digital Fashion, Digital Marketing, NFTs, Luxury

1. Introduction

"The possibilities that the digital world offers to this industry are amazing, almost limitless," Txampi Diz who is Chief Marketing Officer of Balmain said. "We're going through a major revolution." [1] NFT stands for Non-fungible Token. Simply put, it can be interpreted as the ability to authorize digital items with certificates of authenticity in digital space. This means that virtual items once converted to NFT form can be sold, resold and transferred on the blockchain. This solves the problem that digital projects are easy to copy and difficult to trace and dramatically improves the collection value of virtual works. NFT's first appearance can be traced back to 2013, but it was not until Cryptokitties sparked the first wave of popularity in 2018 that they became widely discussed this year [2]. To truly understand NFTs, we must be aware of the technologies and concepts associated with it first, such as Metaverse, blockchains and Ethereum. The technologies behind NFTs would be introduced and explained to refine the fundamental understanding.

Nowadays, NFTs are undoubtedly a much talked about financial phenomenon, especially in the art trade, where the unique and collectable nature of art works can make maximum use of NFT. One of the most famous deals is Everydays: The First 5,000 Days, a digital art collection created by graphic designer Mike Winckelmann (he is also known as Beeple). The work was sold by NFT in

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March for \$69.3 million. It's worth noting that, unlike traditional art auctions, Beeple will continue to make a profit every time the work changes hands because of blockchain technology [3]. Compared with fashion, NFT art has a more mature market transaction precedent. Therefore, the NFT Art transaction will serve as a case study to explore and analyze how the luxury brand can apply this technology.

Luxury brands are getting into the game in different ways, not to be left behind in the craze. The Global VP of Channel Innovation at Burberry, Rachel Waller expresses that this is a cultural wave, NFT is experiencing a cultural moment, and now is the perfect time to think about how to present the brand in a relevant way to technology. Gucci auctioned a NFT video for \$20,000 at Christie's; Burberry created an in-game NFT game for the Blankos Block Party in August; At the end of November, Givenchy and artist Chito launched a second collection of 15 non-fiber garments, traded on OpenSea. Liao Ming Yue, chief operating officer of Gravity, a virtual couture brand, said that It is more meaningful to transform to NFT when virtual clothing or brand derivatives are provided with their own scarcity and value. This is because the particularity of NFT lies in authenticity and traceability, if an object has no collection value, then there is no way to talk about whether a certificate is needed. Then, when it comes to fashion classification, luxury and haute couture will be more in line with the above characteristics. This leads to the thesis of this research: by studying the core characteristics of NFT and making a horizontal comparison between virtual art and virtual fashion, the researcher proposes that relatively speaking, fashion products with high value and collection significance such as luxury goods and couture are more likely to be beneficiaries of NFT.

NFT offers brand new sales channels, more market opportunities and a more sustainable future direction. However, there are still a lot of issues facing NFT Fashion, the CEO of Futures Intelligence Group said that everything is still in the early stages and that fashion NFT will eventually have a more practical performance, but not yet. Fashion NFTs, currently sold by major brands in the form of clothing gifs, can do little for consumers except to appreciate them and lost the wearable feature of clothing. Meanwhile, the current fashion NFT user experience lacks the sophistication that luxury fashion buyers expect, and the hassle of setting up an Ethereum wallet may not appeal to luxury and premium brand shoppers. How to construct NFT fashion that is practical and interactive is the biggest problem we are facing at present. Whether luxury brands have potential solutions to these problems and what to do in the future will be discussed as well

2. Primary research methodology

NFT is limited in academic reference as a new cultural hotspot, so primary research is the key to my study on NFTs. In order to conduct a meaningful primary research and analysis, I used semistructured interviews to further understand NFTs through in-depth review or outlook of current or future behaviors, experiences, thoughts and feelings of interviewees. There are three interviewees, they are Liao Ming Yue, CHIEF operating officer of virtual fashion brand Gravity; Xu Ming Yi, head of NFT art platform BCA Gallery London; and Xiao Yi Han, signed NFT artist of YuanQiXingKong (an NFT artist platforms). Based on the information collected from the Internet in advance, I customized 5-10 questions for them respectively , focusing on the real NFT sales data and marketing model, the benefits brought by NFT, how to view the current problems existing in NFT fashion, and their thoughts and plans for the future.

3. Background of NFTs

This section will review the technical background of NFT to make it easier for readers to understand how luxury brands take approaches to NFTs later in the essay. To peek into this new and vast new world, we must first understand what blockchain is. According to Koshik [4], a blockchain is a data

structure of blocks linked together to form a set of records called a ledger. Blockchain is a read-only and appending-only storage method, and meaning blocks can only be created and read in the blockchain ledger, cannot be updated or deleted, and can only be added to the end of the blockchain. In other words, through cryptography, the integrity of the blockchain is hard to break and cannot be tampered with.

One of the most popular enhancements to blockchain right now is the introduction of smart contracts, an application that can prove ownership. All property transactions need to be witnessed by a third party in real life. For example, to buy real estate, we need to take a lot of documents to the real estate exchange for transferring ownership. However, the decentralized application of blockchain does not need to due to the characteristics of the blockchain that mentioned above. Its transaction record will not be lost or damaged, the source and property rights are obvious. Smart contracts are entirely open and transparent, save third party costs, and are extremely secure with precise execution. One of the most widely circulated platforms is Ethereum, which provides a decentralized Ethereum Virtual Machine to handle peer-to-peer contracts through its dedicated cryptocurrency Ether ("ETH ") [5].

Non-fungible Token is based on blockchain technology, which is recorded in the blockchain's distributed ledger to store detailed information, including changes in ownership. Bitcoin is fungible. so all bitcoins are essentially the same. Instead, each non-fungible Token is unique, and this is the key to how NFT can become the license. In October 2017, a Vancouver-based company called Axiom Zen launched CryptoKitties, a blockchain-based virtual game where people can adopt, breed and resell virtual cats. The game's instant popularity pushed NFTs into the mainstream. The rise of CryptoKitties coincided with the cryptocurrency bull market of 2017, which added fuel to the fire[6]. People are buying, breeding and trading virtual cats insanely. This led many people to discover the potential of NFTs and began to realize their true power of it. NFTs flourished in 2018 and 2019; with the improvement of Web3 wallets like Metamask, access to the NFT ecosystem is becoming easier. Now, there are countless NFT features, including character names (similar to domain names), virtual art, virtual costumes, event tickets, and even virtual lands. Louis Vuitton partnered with event startup Wenew to create 30 free NFTs awarded to players in their own game, "Louis the Game." These products are made from the Louis Vuitton Ethereum wallet. Wenew was co-founded by artist Mike Winkelmann, also known as Beeple, the artist who sold for the highest price mentioned at the beginning of this article [7].

With the transaction function, we also need a reasonable application scenario. The meta-verse is an immersive virtual world. Social interaction and trade, which are necessary for social life, can be carried out in the Meta-verse, and the objects of trade are NFTs. It can be described that the metaverse is made up of NFT, from large houses to small clothes, as long as the user can privately own it, it can be cast into NFT. NFT constructs the basic transaction order of the Meta-verse and determines the uniqueness and verifiability of virtual assets. The Meta-verse provides application scenarios for NFT, which can be applied to art, music, sports, games, and more. According to Confluxnetwork's view, a Chinese blockchain flat, such collectables are often purchased for the purpose of status symbol and beautification of living space. At the same time, the immersive experience of the meta-universe makes the use of NFT closer to real life and increases its utilization value. The immersion of the metauniverse comes from the shared data layer, which is no longer owned by software and websites but by the users themselves [6]. This means that in the Metaverse, users' data is interlinked across all platforms, bringing them infinitely closer to the real world. The clothing in the meta-universe is no longer the skin of a character in a game but can be worn anywhere, just like the clothing in real life. However, this requires the Metaverse to continue to grow to a certain point. This has laid the foundation for the development of virtual clothing in the future. To further enhance readability, here's

a quick summary of the relationship between these unfamiliar terms: Blockchain is the foundation of NFT, and NFT is the key to the development of the Meta-verse.

According to the above description of the characteristics of NFT, we can know that NFT with collection value is relatively more meaningful. In the fashion industry, luxury and haute couture are more collectable on the commercial side [8]. In this comparison, it is not difficult to conclude that luxury goods and high-end goods are more suitable for launching NFT virtual clothing due to their famous brand effect and unique design. Why luxury goods are suitable for NFTs and why NFTs are appeal to luxury brands will be explained and analyzed in detail later.

At the same time, it is necessary to elaborate the casting process of NFTs in order to better understand the production process of virtual NFTs garments. First, choose a platform for casting NFT such as OpenSea, InfiNFT, Cargo, etc. NFT can support a range of files such as visual files (JPG, PNG, GIF, etc.), music files (MP3, etc.), 3D files (GLB, etc.), etc. Creating an NFT is just like starting any other media file. Once the traditional file is ready, it can be simply uploaded to the casting platform to mark it as NFT. Then, set up an Ethereum wallet and buy a certain amount of Ethereum to pay the gas fee, which is the processing fee paid to the technology. Although Gas fee varies at different times and operations, it is still not a small amount of money [9]. However, in the interview with Xu Ming Yi and Xiao Yi Han, the author learned that creators who sign contracts with NFT Artist platform do not need to pay Gas fee, and the platform fully operates the casting and sales process. Complicated processes or technical barriers are no longer a problem to the artist. The process for casting NFT fashion is no different. However, designers need to be able to create virtual garments. As Liao described, it is not easy to create a virtual couture, which involves software including but not limited to Maya, Marvelous and C4D.

4. How can luxury brands benefit from NFTs?

Although it is a familiar word, luxury is difficult to be defined by a single explanation. Quoted from Chevalier, "A luxury brand is a very exclusive brand that is almost the only one in its product category and that can appear as a Very selective symbol of terse, sophistication, and good taste." Kaperer argues that luxury brands are perceived as an image in the minds of consumers. It encompasses high levels of price, quality, aesthetics, scarcity, extraordinary, and high levels of non-functional association. No matter how luxury is described, the keyword is scarcity [10].

Kaperer points out that new technology is one of the biggest competitors to luxury. Apple is a company with a luxury strategy, and consumers will queue up all night to buy the new iPhone. Hybrid engines have made new Lexus the industry standard for clean luxury cars, lithium batteries have made Tesla the "IT car" of all Hollywood stars, and ferraris or Lamborghinis are no longer as popular as they used to be. Technology, it can be said, is becoming the new luxury wind [10]. As a new technology, NFT perfectly integrates technology and luxury concepts when combined with luxury brands. Prominent non-crypto collector Gmoney once said in an interview with CNBC that owning non-crypto in the crypto community also provides a kind of social status, much like a real-life Rolex or Lamborghini. When people buy A Rolex in the real world, they don't spend thousands of dollars on a wristwatch because it's practical. A simple \$5 watch can do the same. It's to show their status. Gmoney said. "If I had NFT, I could post it as my avatar on Twitter, and I could quickly identify myself with a photo." Edouard Aubin, equity analyst at Morgan Stanley, says: "Non-functional communications have three benefits for consumers -- investment, status and community. That said, NFT has the hallmarks of luxury goods, which use scarcity as a social status indicator, which may partly explain why people are willing to spend tens of millions on virtual art. According to the above analysis, NFTs can help luxury brands maintain high-end customers, thus demonstrating their uniqueness and status.

NFT makes it possible for luxury brands to create priceless, non-replicable experiences for their customers, which in turn will increase brand awareness, engagement and sales. For brands like Louis Vuitton, Gucci and Burberry, participating in the cultural zeitgeist can be more valuable than the immediate monetary gain, "Ian Rogers, the former chief digital officer at LVMH, told Vogue Business recently. Foster believes that luxury goods should lead rather than follow [11]. Gucci took part in Christie's NFT digital art online auction for "Proof of Sovereignty". It will auction off a short film about four minutes long, with a starting bid of \$20,000. Proceeds from the auction will be donated to charities to improve vaccination rates in underdeveloped areas. At present, what NFT brings to luxury brands is not high profits, but a proper means of publicity, in this case showing the brand's head style of paying attention to social issues and bravely exploring the latest technology.

Since the birth of the Internet, artists have been trying to find a sustainable business model for digital assets. Since data on the Internet can be copied at will, the concept of scarcity does not exist. Virtual clothing is also included. The emergence of NFT effectively solves the problem of ownership of virtual assets, which lays a foundation for the transaction of virtual fashion. Therefore, virtual fashion can be developed for luxury brands to open up new markets and increase profits. Virtual fashion allows brands to go beyond physical design and be endlessly creative at a relatively low cost. At the same time, virtual fashion is more environmentally friendly. Liao explains that the reason they wanted to create a virtual couture Brand is sustainability. She points out that nowadays, most Gen Z consumers buy many clothes for only taking photos, and people increasingly focus on displaying themselves on the Internet. Therefore, purchasing more environmentally friendly virtual clothes is a better choice.

5. How can luxury brand apply NFTs?

Mr. Doyle of Christie's claims NFTs are so common in art because digitally native creators can assign scarcity to works made entirely of pixels. They allow creators to make more money than they could outside the art world. Today, creators are usually paid only when they sell a work of art [3].

in the first place. If the new owner of the artwork sells it to someone else, they line their pockets with the money they make - and the artist gets nothing. However, NFTs use smart contracts to verify ownership and terms. Therefore, through the case of art trading, one of the reasons why it is popular is that the creators can directly get more monetary benefits [12]. In view of the luxury industry, if NFT virtual fashion tends to develop, it should also be operated in some way to make brands directly gain more profits.

The closest application to art is selling fashion NFTs in the form of images. Givenchy, for example, collaborated with artist Chito on 15 NFT prints, most of which cost between \$10,000 and \$30,000, with prices as high as Ether 699.69, or about \$2,187,307.91. The unit price is very high, but due to the limited quantity, it may not bring the brand a real considerable income, but is still a way to show the brand value of publicity. Moreover, customers can only collect prints like paintings and can not interact with them. Balmain, by contrast, has put more effort into creating an NFT shopping experience that is as relevant as possible to the real world. It partnered with fitness brand Dogpoun to auction NFT sneakers at Opensea, while adding a VIP experience to boost prices. For up to six ETH's (about \$3,000 for one ETH), a workout with fitness expert Kirk Myers is added; When it reaches 10 ETH, the winner will receive exclusive tickets to the Balmain fashion show; If more than 14 ETH, the winner will also receive two backstage tickets [12, 13].

In addition to high bids, luxury brands also try to use NFTs as a diffusion line, so that consumers who cannot enjoy brand products due to the price can have a chance to enjoy digital products. Like perfume and makeup, it can attract more customers to the brand world. Burberry introduced its first NFT collection that includes an unlimited number of pool shoes for \$49.99 and armbands for \$24.99 Minted for 2 weeks Only, obviously they are much cheaper than real Burberry products. However,

Kapferer [10] argues that, the most important thing for luxury brands is to maintain scarcity. Hermes has a strict consideration on how many bags it plans to sell in a year and limit production once they become too popular. NFTs, as a marketing strategy of diffusion line, cannot highlight the scarcity of NFTs. This is a temporary strategy, but it may not be the best direction in the long run.

Jamie Wu, the content creator, entrepreneur, and investor/consultant to UNMATEREALITY, is a group of online game developers daring to apply gamification concepts to the world of fashion, entertainment, and commerce. In an interview with YouTuber Paige Parke NFT Convert, she suggested that fashion moments become collectable NFTs, for example, the same couture dress worn by Cardi B is obviously more interesting than that worn by the average person. Such a fashion moment is sold through NFT, just like an expensive painting. Many examples of such NFT Moment include the auctionf

NFTs fashion is very natural to combine with games as a virtual fashion. Louis Vuitton placed 30 free NFTs eggs in its mobile game "Louis the Game," with three designs of 10 each. Ten of them were designed by artist Beeple. Players must play through a certain threshold before they can find NFTs of the drawing. The game was created to celebrate Louis Vuitton's 200th birthday and uses the founder's story as inspiration. Louis Vuitton uses NFTs as a reward to engage users deeply with the game, further promoting the brand's culture and history. On August 4, Burberry announced that it is releasing an NFT character called Shark B for Mystic Games' multiplayer online game Blankos Block Party. The limited-edition shark character is emblazoned with the Burberry logo and can be purchased, upgraded and resold in-game. As part of the collection, Burberry will also introduce NFT gaming accessories, including jetpacks, armbands and pool shoes that players can apply to any Blanko they own. Shark B can also master a series of abilities such as speed and agility through training, thus ensuring the uniqueness and rarity of each toy. Burberry may be able to attract a wider customer base and find new customers, especially those who might not have bought Burberry in the past. At the same time, consumers are not well aware of NFTs and blockchains in the preliminary stage. Games are a familiar project that can help consumers make the transition from physical to virtual consumption [14].

Gravity is unique in its use of NFT. According to Liao, Gravity's sales model is the first in the world. It took a lot of research and adjustment in the process to figure out the current strategy. She even thinks that developing the sales model is the most difficult part of brand entrepreneurship. Gravity promotes a slogan that is win-win with consumers and continuously promotes the idea that NFT garments are collectables and can be appreciated in the future. When a collector buys NFT digital couture, the brand helps to "rent" it. That is, to model the clothes on a photo of the renter for only a tenth of the purchase price. Part of the rent will fall into collectors' wallets, which means that after buying Gravity's NFT Couture, they can continue to earn rent and make another price difference after reselling it when it is at a higher price in the future. Jamie Wu believes that the way clothing is modeled on consumer photos kind of solving the problem of NFT Fashion "wearable" so that customers can interact with clothing in photos. Gravity's Digital Couture is in the range of \$2000-\$3000, which is obviously a lot cheaper than NFT pieces from luxury brands. It is reasonable to infer that the value of NFTs depends not only on their scarcity but also on their status and endorsement in real life. Once again, it proves that luxury brands are more suitable for NFTs.

6. **Problem of NFTs**

Deeksha Gupta, professor of finance at CMU, expresses this is a point in time for NFTs, but their long-term value remains unclear. Christian Catalini, a professor at the Massachusetts Institute of Technology Sloan School of Management who studies blockchain, said there are so-called "last mile" problems with blockchain. The last mile problem refers to how digital assets interact with the offline world. For example, no matter how technological revolution NFTs Fashion has brought, customers

can only use it on sites that connect the offline and digital worlds. "What gives these NFTs their value and makes them 'useful' in the long run depends largely on their connection to the offline world," Catalini says. This connection can be as simple as a community that supports their creativity and communication. If the community loses engagement, so does a lot of the value associated with NFTs [15]." The development of the application scenario of the meta- verse is crucial, which also depends on the development of Augmented Reality and Virtual Reality technologies, that is, how people can truly immerse themselves in the meta-universe.

"Because when something is called a scam by 40 per cent of the people and 60 per cent say it makes a lot of money, that means it's stale. When something goes viral on Tiktok, it means a lot of people are already abusing it." Xiao pointed out that nowadays, many people use NFTs as gimmicks to cheat money, and the country's relevant laws on virtual asset transactions are not sophisticated yet. However, she added that any popular program was vulnerable to scams, and believed the country would soon start tightening the rules. There will always be NFTs market participants who believe that NFTs are beyond any regulation because of their innovative and unexplored nature, and use the transaction as a smokescreen for money laundering. The US Securities and Exchange Commission (SEC) classifies NFTs components as securities, and anti- money Laundering regulators are also pay close attention to NFTs market. This is an example that hints at the potential risks of NFTs transactions.

Apart from the NFTs transaction itself, it is difficult for luxury brands to cater to the tastes and preferences of existing customers. Luxury customers expect a sophisticated, comfortable, service-filled shopping experience, which is obviously a bit different from buying NFTs on a computer. The collaboration with the game makes everything cartoonish and pixelated, and the game itself is a jarring user experience.

7. Future of NFTs fashion

NFTs are very fresh, and the existence itself is "the future", future development has been partly covered in the previous section of how to use NFTs. This paragraph is only a supplement and will not go through too many details. Xu believes that beauty and design are also needed in the meta- verse world because clothing is a way to show oneself. Others cannot see the real you in the meta- universe, so people can only express themselves through outfits. Liao explains that Gravity's future plans are to work with games, as well as the meta-verse. The meta-verse require Gravity specific scenarios and themes that brands can design and create virtual garments for. It may be possible to build a mall in the meta-universe and give Gravity a shop to sell clothing. Think of the meta-verse as a real-world, she explains, where people will need to wear clothes. Thus, the development of NFTs fashion is inseparable from the development of the meta-universe. How quickly and immersively people enter the meta-universe has yet to be resolved. Virtual fashion also provides many new positions, Liao considers, adding that there will be a growing need for versatile talents who understand both fashion and technology. Tesla and SpaceX CEO Elon Mask believes that having a giant screen in front of people all day is uncomfortable and doesn't provide genuinely immersive access to the meta-verse. A better approach is to implant chips into the brain, offered by Neuralink, a brain-computer interface company he co-founded.

8. Conclusion

Focus on NFTs fashion, this essay had addressed three questions, including who is the main beneficiaries of NFTs in the fashion industry, how the luxury brand can benefit from NFTs and how the luxury brand can utilize it. The author conducts in-depth interviews with three relevant practitioners and obtains many adequate opinions with these questions. First, by studying the technical background of NFTs, we know that its most significant characteristic is that it can guarantee the property rights of virtual assets, thus ensuring the feasibility of virtual product transactions. It can be concluded by backward analysis that only when products with value and scarcity are converted to NFT can maximize their advantages. The rise of the NFTs art market is a substantial test of this view. Art is unique and fully satisfy "scarcity". NFTs ensures that a digital painting is authentic and limited, further strengthening its potential for future appreciation. Comparing fashion industry and art industry, luxury goods and haute couture are similar to works of art, which are limited and have the characteristics of collection value. Therefore, compared with other categories in the fashion industry, luxury and haute couture are the most suitable for launching NFTs fashion, which is easier to attract buyers to consume and collect. With this in mind, the authors continue to investigate how luxury brands can benefit from NFTs. NFTs can help brands maintain VIP customers and show that the brand is at the forefront of the times. At the same time, NFTs ensures the viability of virtual fashion trading, which is more environmentally friendly and sustainable. Brands can use NFTs through games, meta-verse, promoting collectable concepts, and integrating with offline campaigns. However, the integration of the virtual world and the real world still needs science and technology development. Combined with Xu and Liao's comments in the interview, NFTs fashion will be a big trend in the future, rather than a temporary fad. This paper systematically explores the past, present and future of NFTs fashion in this field, proposes that fashion luxury brands should continue to develop NFTs products, and analyzes in detail what direction luxury brands should go in the face of this trend. The study has several limitations, including NFT fashion is still in its infancy, everything is in the exploratory stage. Therefore, the perspective and direction of relevant practitioners are not uniform. It is a limitation of this thesis, but also a very important process and stage for the development of NFT in the fashion industry. Also, because the subject matter is too new, much of the content comes from web sources rather than books and literature. The author tries to read as much of the material as possible to find common ground, but still does not rule out the fact that the material on the web is not hundred per cent rigorous.

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