

The Future Trends of NFT: Evidence from Art and Brand Industries

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Abstract. Non-Fungible Token (NFT) is a relatively new concept that has been a hot topic in the development of the field. The artwork generated in the form of NFT has made it an increasingly lucrative market, while there is also a lot of interest in the application of NFT to games, the metaverse and the financial economy. Therefore, this research paper will investigate the market development trend of NFT in the context of metaverse and the future outlook, especially to make a more detailed analysis of several important fields, taking art and branding industry as examples. Based on case studies and data analysis, NFT's high pricing is attributed to a variety of factors, where the company's marketing approach is mostly creative and cross-pollinated to appeal to a wide audience. NFT has the ability to grow in the cultural sector as a whole, but it is challenging to sustain long-term prosperity due to the lack of NFT artworks and the likelihood of excessive speculation. Overall, this paper explores the value and potential of NFT using current research and accurate statistics, particularly in the areas of branding and the arts. These results shed light on guiding further exploration of NFT's market prospect and its own value realization.

Keywords: NFT; metaverse; digital collections; market analysis.

1. Introduction

Non-Fungible Token (NFT) generated artwork has allowed the dormant art market to explode as well as transform online. Its rising market profits have kept the interest of collectors and scholars in this replacement vehicle high. The Non-Fungible Token market is mushrooming in recent years. The concept of NFT originally comes from a token standard of Ethereum, aiming to distinguish each token with distinguishable signs. This type of token can be bound with virtual/digital properties as their unique identifications. With NFTs, all marked properties can be freely traded with customized values according to their ages, rarity, liquidity, etc. It has greatly stimulated the prosperity of the decentralized application (DApp) market [1]. Public attention towards NFTs has exploded in 2021, when their market has experienced record sales, but little is known about the overall structure and evolution of its market [2]. From the market point of view, plenty of domestic and foreign companies have entered the NFT field, especially some Internet companies. Secondly, on the economic side, traders can not only become first-hand buyers, but also resell second-hand NFT collectibles in this form in order to earn high interests through the NFT trading platform.

Non-fungible tokens (NFTs) are transferrable rights to digital assets, e.g., art, in-game items, collectables, or music. The phenomena and capacity of the markets have grown significantly since early 2021. Using daily data between January 2018 and April 2021, we show that a Bitcoin price shock triggers an increase in NFT sales. Additionally, either price shocks reduce the number of active NFT wallets. These results suggest that cryptocurrency markets (the larger one) affect the growth and development of the NFT market (the smaller one), but there is no reverse effect [3].

NFT is the opposite concept of homogeneous passwords (FT, Fungible Token). Its "non-fungible" characteristics are reflected in the case that each NFT has a unique digital identity (Token ID). In this case, it records the creation time, transaction records and other information, each NFT The NFT records the ownership information and transaction process of the mapped digital assets, which helps

solve the long-standing problems of unclear ownership and piracy of digital artworks. Therefore, the digital artwork field has become an important application scenario for NFT at present [4]. Blockchain allows client-side or enterprise-side users to place personal data or business data (e.g., personal IDs, certificates, company financial data, or even certain industry data), etc. on the blockchain network, and non-homogenized tokens have thus become the next hot spot in the Internet industry [5]. By examining the growth of NFT and its uses in numerous industries today, it is possible to observe that consumer demand has achieved diversified development and that the metaverse concept is gradually being improved. This new dimensional perspective on the development of non-homogenized tokens and the potential for in-depth applications makes it possible to fully exploit and realize the market value of these tokens. There is still a lack of a coherent explanation on the economic impact of NFT on other sectors, despite several academics have made related studies on the impact of NFT to the art market and introducing potential future development tendencies of NFT. Therefore, this study will focus on the impact of NFT on the economy in the context of the meta-universe, especially for the art and branding sectors to make a more detailed analysis. First, we will provide an overview of "Reasons for the high price of NFT" "NFT marketing strategy" and "NFT market status and outlook" based on previous research literature. The analysis will be based on an overview of the literature. With this in mind, we develop our research content and explain the basic knowledge of NFT: the background of the study, the significance of the study, the characteristics and development of NFT, and the reasons for the explosion of NFT. This is followed by a case study and data analysis to investigate NFT's mode of operation, areas of action, and economic impact, with the aim of exploring how NFT affects art collections and brand marketing. Finally, the future development trend and direction of NFT is envisioned.

2. Literature Review

2.1 Reasons for the high price of NFT

NFTs are extremely valuable due to their uniqueness, tamper-proofness, efficiency in circulation, ease of confirming ownership rights, and traceability, according to Wang [6]. He also suggested that selling the same work across domains and the value factor of cryptocurrencies affect the price of NFTs, and the price fluctuation as well as the potential value of NFTs are enormous [6]. Based on Wang's hypothesis, artists can consistently earn from NFTs, and the ensuing internet frenzy creates additional value [7]. In terms of Qin's hypothesis [8], there has been some degree of a market bubble for NFTs as a result of the lack of a valid framework for valuing them. To participate in the VeeFriends series, one must purchase NFTs. Holders are then eligible to attend VeeCon, which will focus business, marketing, creativity, entrepreneurship, innovation, competition, and, entertainment. The VeeFriends series seeks to provide all users with an incredible amount of information.

NFT's sustained high value is therefore a result of its rarity, distinctiveness, and additional value in terms of social, commercial, entertainment, and so forth. Moreover, a certain market bubble has been created by the frenetic market and the flawed price evaluation mechanism, and market speculation is likely to exacerbate the existing high prices.

2.2 The NFT marketing strategy

NFT marketing is still in the early detection stage, some of the marketing tools may have more sense of value, but there is not much engagement at the moment. In NFT marketing, brand culture output and brand IP construction have replaced simple hotspot hunting and traffic harvesting. Currently, Ling investigates the value system, production model, and marketing strategy of NFT digital period goods in the web 3.0 era, primarily in the clothing industry. The author contends that in the Web 3.0 era, fashion brands should develop a dual-chain mutual sharing model of "virtual and real space" in the initial transformation of digitalization, explore the maximum convention of interests between digital and physical fashion, and create a new paradigm for the development of the fashion industry [9]. Bai examines NFT marketing strategies used in the cosmetic business using a few case

studies. He argues that NFT is currently at the level of basic marketing for the domestic cosmetics business, and it is unclear how far it will advance in order to properly develop and generate income through NFT cosmetics [10]. Shi and Zhang suggest integrating NFT with artificial intelligence technology to enable NFT obtain more market traction. Because of the constantly shifting societal values of the modern day, humanity is headed toward a virtual world through the combination of NFT and AI [11].

According to the research presented above, it is evident that NFT has a significant potential for growth and is highly convergent, capable of integrating and communicating with a variety of areas, all of which may attest to its strong social currency qualities.

2.3 The NFT Market status and outlook

NFT, as an emerging field, has shown explosive development since 2021. The market profit of artwork in the form of NFT has been rising, attracting widespread attention. Meanwhile, in the context of metaverse, NFT is gradually applied to games, metaverse and financial economy. From the market point of view, many well-known domestic and foreign companies have entered into the NFT field, especially some Internet companies. They are full of unknown possibilities with their high market value and promising future development momentum.

Currently, Chen proposes that 2021 is called the meta-universe meta-year. As the global pandemic of the New Crown Pneumonia epidemic objectively increases the demand and practice of people to invest in virtual space activities, social Internet giants compete to lay out the metaverse track. Metaverse becomes a new track to accelerate the layout of digital economy, and NFT is able to develop faster in this context [12]. Liang proposed an explosive growth of NFT artworks in 2021, with total sales of NFT artworks and NFT collectibles skyrocketing from \$4.6 million back in 2019 to \$11.1 billion in 2021. 74% of surveyed HNW collectors had purchased artwork-based NFT in 2021, with a median spending per capita of 9,000. Besides, Clare McAndrew, the lead author of the report, expressed the view that a significant portion of these transactions are speculative in terms of the changing market segmentation and the shift in the share of direct sales and resales [13]. Hu also points out in her article that during this boom in the rise of NFT artwork, NFT trading platforms have sprung up in the market, as well as auction houses, lending platforms, and many other NFT fractional goods are highly sought after. However, the NFT market also has some problems, e.g., the cultural value of artworks has not yet been manifested and the economic value is not stable enough [14].

From the above analysis, the current state of the NFT market is still relatively positive, currently bringing good economic benefits, and the development of the field is constantly broadening and expanding the audience. However, owing to the incomplete development of NFT itself there are some defects, as well as the global face of many unknown economic and political volatility factors, the development prospects need to be further observed, the overall is to the good.

3. Basic description of NFT

NFT, or Non-Fungible Token, is a blockchain-based "non-homogeneous pass-through". Similar to Bitcoin, Ether and other virtual currencies, NFT also relies on the blockchain for transactions. However, the most important feature of NFT passwords is their uniqueness, as they are indivisible and unique digital credentials, as opposed to Fungible Token. Non-homogeneous means that each coin represents a unique and distinctive identifier, and the smallest unit is 1, unlike Bitcoin where you can buy just 0.1, which can be similar to how each ID card has a unique ID number. The ownership of an NFT proves the collector's ownership of the digital asset to which it refers. The data on the blockchain cannot be forged and can be authenticated at any time, which ensures that the NFTs that collectors buy are genuine and scarce, making them a new favorite among collectors.

NFT is currently used in metaverse, collectibles, art, games and real-world assets and documents, with the art collectibles sector being more mature and the market hotter. As of 24 September 2021, six of the top 10 NFT projects in the world were in the collectibles category and two were in the

games category, with the number one NFT project being Axie Infinity (as shown in Fig.1), which generated sales of US\$2.1 billion.



Fig. 1 Number of Buyers

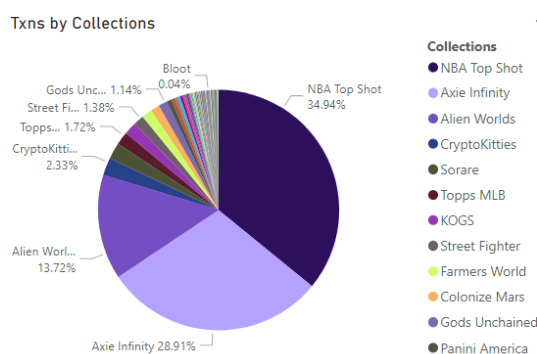


Fig. 2 Number of Owners and Buyers

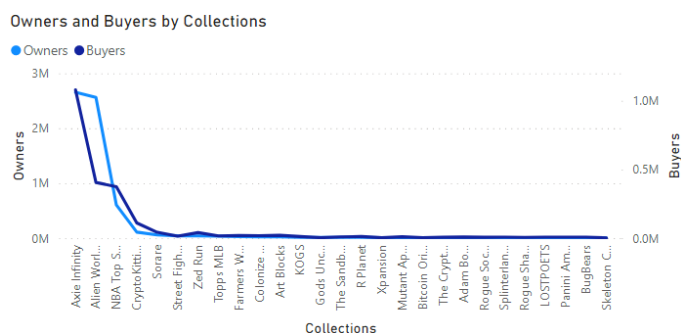


Fig. 3 Neu

Figures 1-3 indicate that NBA Top Shot, Axie Infinity, and Alien Worlds are the trendiest series right now and considerably outpace other collectibles in terms of buyers, owners, and transaction volume. They may be considered the NFT market's rudder, and any change in them would have a significant impact on the entire market.

From the domestic market, leading Chinese Internet companies have entered the NFT, e.g., Ali's Ant Chain, Tencent's Zixin Chain and Baidu's Super Chain. The current development of the domestic NFT sector is mainly in the area of digital copyright protection, creating a new paradigm of creator economy, providing new ways of realization for current content creators and social concerns, fundamentally changing the current plight of insufficient incentives for creators due to difficulties in intellectual property protection, and continuously promoting the process of digital content industry's legitimization and the upgrading of digital content copyright protection.

Compared to the domestic market, foreign NFT has emerged long ago and has been rapidly expanding in recent years, with the NFT market showing a trend of going forward and backward, from the original OpenSea to a three-legged situation with X2Y2 and Mgc Eden. At present, the foreign NFT market is a typical buyer's market. Foreign countries have more experience in the NFT market, more mature technology and infrastructure, making the whole industry chain relatively complete and the process easier. With the involvement of capital, the foreign market, which is extremely free in itself, has shown a kind of wild growth.

We can see from the statistics and rankings of the markets that are part of NFTGO (depicted in Fig. 4) that OpenSea, the largest NFT trading platform in the world, is the most popular NFT marketplace trading platform and continues to hold a strong position in the NFT trading market. Secondly, based on the information that is available about NFT, NFT has many advantages. Its advantageous features are as follows.

- Digitalization: because of its unique digital identifier, it protects the rights of consumers.
- Transparency: traceability on the blockchain guarantees the transparency of the process of the transaction.
- Scarcity: each collection is issued in a limited number, which can also guarantee its scarcity.
- Authenticity: it can be circulated to eliminate counterfeiting
- Uniqueness: each NFT piece contains a unique piece of code information, and this information is permanently unchangeable.

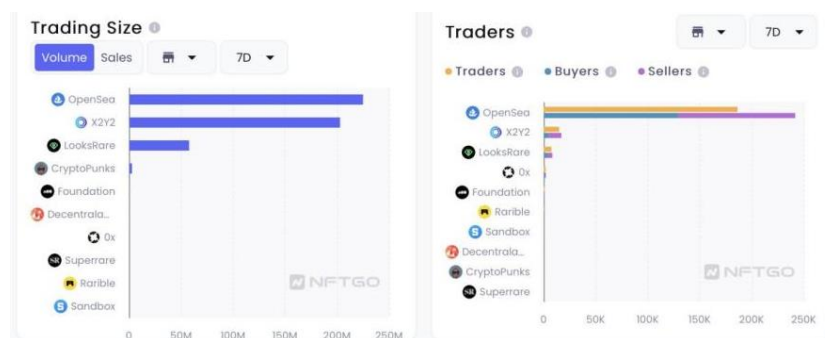


Fig. 4 Trading Size and Number of Traders

It is these characteristics of NFT that have contributed to it becoming the current sensation. We have begun to think about why NFT is so hot. Firstly, because of the urgent need for art transactions, most art transactions are conducted in the form of private negotiations, which are inherently less active and less transparent. NFT collectibles have a perfect, transparent, reliable and cost-efficient global secondary market, thanks to the openness of blockchain data and the programmable asset properties of passwords, users can easily trade and transfer NFT collectibles, as well as enabling the auctioning of collectibles at a very low cost. Secondly, the impact of the COVID-19 has reduced people's contact and collision in the physical world. In the process, people became more accustomed to and began to integrate into digital virtual spaces. People are spending more time staying and interacting in virtual spaces and are more open and accepting of the value of virtual goods and services, and the NFT provides a huge scope for digital art to flourish. The third point is that each NFT can be traced back to its original issuer, making each transaction verifiable and guaranteeing the authenticity of the merchandise, as well as the rights of the buyer and seller, which makes NFTs currently backed by real practical value in the crypto art market. The fourth point is the hot market for crypto-digital currencies. Since 2020, the size of the cryptocurrency market has continued to climb, generating interest in all types of crypto-digital assets. Among them, NFT art is probably the type of crypto asset that is currently the most closely connected to the physical world and the most visible and tangible to investors, and is bound to receive more attention. The fifth point is that creators are using blockchain technology and the existing exploration of NFT to find a new channel to strengthen their interaction with their followers and fans, with NFT becoming a link between the two and to realize their results

in the digital world. Finally, numerous well-known artists and singers have released NFT productions, and the involvement of these companies and celebrities with sufficient visibility in the physical world has been an important factor in the development of NFT.

Nowadays, the field of NFT has grown considerably and has great market value, so it is particularly important that we study the significance of NFT. Cryptocurrencies are currently dominating the art market, and the revolution is not limited to the art market. While the usage of NFT in games is already maturing (e.g., the trading of in-game items), other different industries, especially those involved in the production of digital content such as music or video, are also experimenting with the technology. As NFT promises to be a brand-new area of practice for blockchain technology to open up outside the traditional financial sector, e.g., games, TV shows, movies, animation, publishing and many other areas of content production, exploring more possibilities of NFT in depth can be of great help for the future. Secondly, NFT is a new tool that meets certain needs of creators, users and collectors of a large number of digital and non-digital objects. Hence, investigating the NFT may help us to better understand the rapidly evolving market landscape. In addition, although speculative hype still exists in the current digital collectibles sector, there is a real value and significance to the existence and development of digital collectibles in particular as an important area of NFT. The last point is that understanding the logic behind the explosion of NFT, its mode of operation and the way it is disseminated will help us to uncover the value and potential it contains. Therefore, it is necessary to explore NFT.

4. Empirical analysis

4.1 Reasons for the high price of NFT

The large data prediction model for the user's electricity consumption is implemented in the Clementine software. Similar to the idea of a shoe rush or hot toy, most NFTs typically have a first-hand cost. The cost of the 1P item will gradually rise over time as its popularity grows. For a complete project, overseas NFT projects are often provided in thousands of units (6,000–10,000 at a time). However, a cold start model is frequently used for household projects. Simply, this indicates that authors are posting their NFTs in modest quantities.

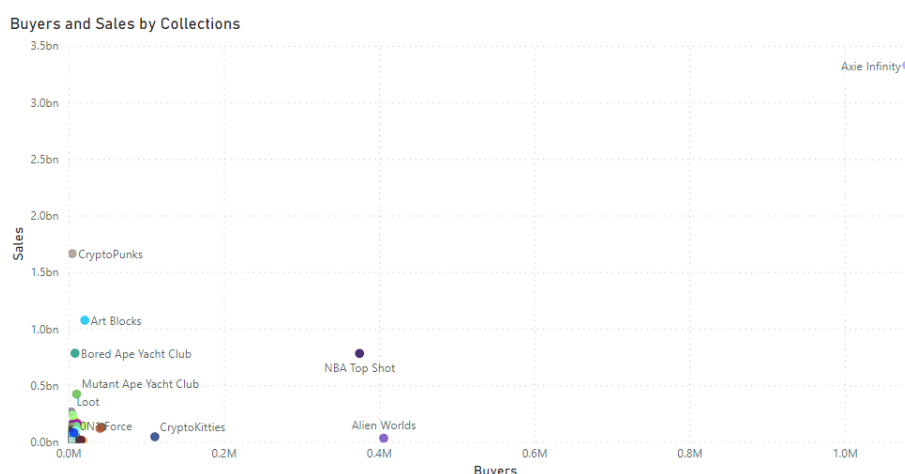


Fig. 5 Coherence Between Buyers and Sales

The first 200 Nerdy Ape figures for the Nerdy Ape project were posted over the course of several weeks in stages. Price points for the initial release were 399 (A-grade, standard) and 999 (R-grade, rare), with the rarity distinction being a feature shared by essentially all NFT productions. However, certain goods (e.g., Nerdy Ape) will reveal their rarity immediately away, while others will bury the clues in a significant number of NFT products (leaving it to you to investigate and analyze), or they may expose them gradually through official announcements. Going back to the Nerdy Ape, the

market price has evolved over time and with the project's popularity. A Grade A Nerdy Ape currently has a "floor price" of less than RMB1,000. The cost of the least expensive Nerdy Ape on the market is the floor price. Ruler grade Nerdy Ape are either largely unheard of on the secondary market or cost upwards of thousands of dollars. It indicates that the majority of players are reluctant to part with their R-ranked Nerdy Ape. Secondly, explore it from a human perspective. On 1 May 2021, its debut price was over 1,000. On 18 February 2022, it had a floor price of 1.8 million (which continues to fluctuate), a price increase of almost 1,800 times in less than a year. It is a major victory for consumerism that people are using internet avatars, where before they were "screenshots" for self-realization, now they want to "own" them. Hence, this oscillation between sentimental collecting and rational investment has driven players to spend wildly, eventually going up by 1,800 times.

Subsequently, we look at two more sets of data. As presented in Figures 5 and 6, the top three sellers are Axie Infinity, CryptoPunks and Art Blocks, and that the more buyers there are, the higher the total sales may not be. To some extent, this reflects the volatility of the overall market and the fact that some of the higher value collectibles are in a bubble and can be "left in the hands of the people who can't sell them". There is no doubt that Axie Infinity is the 'leader' in the overall sector, with all figures remaining at the top. The price of the debut or release, the psychological activity of participants (the price of NFT market trading fluctuations, it is particularly liquid), and the official statement made by the IP project can all be considered to have an impact on the price of NFT.

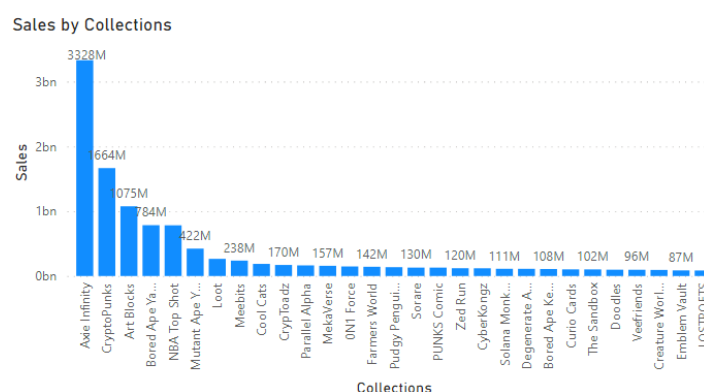


Fig. 6 Number of Sales

4.2 The NFT Marketing

In marketing strategy, we focus on exploring some new areas of NFT including the arts sector and the branding industry in NFT. As for Artistic fields, NFT's Digital Museum is now a new marketing strategy. NFT China developed the Digital Living Museum as a stand-alone meta-universe. The digital collection of the virtual museum at debut consists of 12 pieces of art. This includes interactive 3D objects and experiences as well as 2D and 3D photos and videos. NFT China is a virtual environment that combines art and technology and was designed by a team of engineers and artists. By pushing the boundaries of technology and artistic expression, the NFT Museum aims to demonstrate the enormous untapped potential of digital art and NFT. This new combination not only promotes the NFT, but also allows the museum to survive in a new context.

Secondly, there are also artists who are slowly beginning to figure out NFT and promote it. Takashi Murakami launched the 108 pixels flower Murakami when he first declared that he would try his hand at NFT art. Based on the subject of Buddhist anxieties, the Flower series (as shown in the left panel of Fig.7). A pixel emoji at the time sold for 144 Ether, or about \$300,000. He eventually pulled all of his works from OpenSEA because he needed more time to determine out what and how to devote himself to the subject. A new challenge and experiment were involved.

No matter if it involves technology or ideas, all creative production is conceptual and takes place in the context of greater social change. It's still a positive thing that artists may change with new concepts and tools. Due to the pandemic, online trading and communication have increased. The digitalization of art or digital art itself can get over many real obstacles. The NFT's copyright

protection and the fact that it continues to pay the source author around 10% of many transactions can both increase income and safeguard the creator's interests for the artists themselves. This is an economic innovation.

With regarding to Branded industries, luxury brand Louis Vuitton launches the game app Louis: The Game (as shown in the right panel of Fig. 7) to celebrate the 200th anniversary of its founder Louis Vuitton on 4 August 2021. The game follows Vivienne, the fashion house's mascot, on its journey to Paris and presents 30 NFTs for players to collect along the way, ten of which have been designed by digital artist Beeple. The NFTs are collectible but not for sale. It is a unique social experience.

Secondly, Burberry has also entered the NFT. In August 2021, Burberry partnered with Mythical Games to launch its first NFT product, which will be showcased through the Blankos Block Party, a digital vinyl toy called Blankos that exists on the blockchain. The brand says it hopes to unlock value for the gaming community by encouraging players to interact with its brand in an environment that celebrates art and design. GUCCI, an international brand, has also begun to experiment with the new territory of VFT. In February this year, Gucci announced a crossover collaboration with hipster brand Superplastic to launch the "SuperGucci" NFT collection, which is planned to create 250 NFT pieces and will be released in three instalments. The collection will be released in three waves, and will be marketed through the rarity of the number of releases, the popularity of the co-branded supply plastic boys, the fact that each NFT will come with a 20cm high ceramic figure, and the fact that those who own a GUCCI NFT will be white-listed for further GUCCI NFT releases. As a consequence, Gucci's NFTs have gone up almost tenfold since they were first released. This marketing strategy utilizes the scarcity of equity. The marketing approach of NFT may therefore be loosely analyzed as exploiting limited equity, developing social experiences, and adopting limited NFT co-branding based on the aforementioned instances and material.

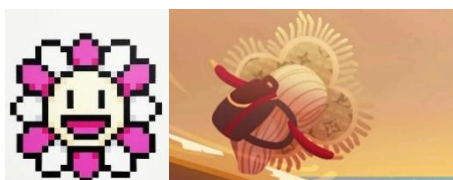


Fig. 7 Murakami.Flowers (left panel) and “Louis: The Game” (right panel)

5. Data analysis

The market capitalization data and the data on the number of participants in NFT are generally trending upward, and market activity reached a small peak at the start of 2022 and has since declined. Nevertheless, it is still generally higher than last year, according to data graphs of NFT market capitalization versus volume and NFT holders and traders for the previous year that can be searched in NFTGO, seen from Figures 8 and 9, data as of June 10, 2022).



Fig. 8 Market Cap and Trading Volume of NFT In A Year



Fig. 9 Holders and Traders of NFT In a Year

The PFP (virtual image) track, one of the more well-liked NFTGO areas, displays explosive growth and has the highest percentage of market cap data, as is apparent from the category market cap data exhibited in Figure 10. All other areas have relatively low market cap data in comparison to it, with areas like collections and games coming in close second. The development of virtual images PFPNFT (Profilepicture) has gone far beyond simple digital collections, and the relationship between the community. In fact, PFPNFT is more like a virtual kingdom and a digital passport because it combines a cultural consensus based on IP images with a community of interest based on a single identity for NFT. PFPNFT (Profilepicture) has advanced far beyond simple digital collections. Virtual image-based collectibles emerged early this year as the most promising trend in the NFT and metaverse areas, and the PFPNFT model is still expanding. Additionally, the community operational infrastructure is also changing quickly.

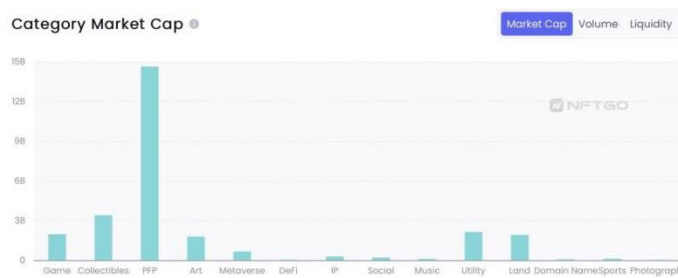


Fig. 10 Category Market Cap

6. Limitations & Future outlooks

As NFT research is still in its infancy, the most often used research techniques at the moment are case studies and data analysis, which lack coherent theories and techniques. Additionally, there isn't much literature study on NFT, which largely focuses on principles and application examples. The case study approach is used in this paper, together with data analysis, to carry out the research. Since the results of the case studies are subjective in nature, e.g., the situations chosen vary from person to person. Therefore, they cannot simply be distilled into generalizations. The study is not deep and thorough enough since it takes a lot of time to examine sample instances from the whole market, and this article only does so by looking at a few examples from the industry.

In sectors like art collections, digital movies, music, patents, intellectual property, and possibly the whole cultural economy, NFT has the potential for growth. Additionally, because NFT can provide IP traceability, it can safeguard IP owners' rights and interests going forward, enabling owners to grow the downstream market space in a reliable and secure manner. Future metaverses will eventually be cross-platform and entirely user-made. Based on the usage of NFT, the metaverse can have an effective financial system that offers low-barrier, low-cost, and highly effective services to users. The NFT industry, however, lacks a specific regulatory framework. As NFT artworks are so rare, there is a propensity for excessive speculation, and it is impossible to maintain long-term prosperity based solely on the novelty of consumers and the commercial worth of IP, which now more closely resembles a bubble of market immaturity.

7. Conclusion

In summary, we examine and assess the growth and future of the NFT market taking the art and branding sector as an example based on the case study and data analysis methodology. According to the analysis, under the frenzied wave, the lack of perceptual and rational judgment and the soundness of the pricing system together have contributed to the speculation of high NFT prices. Besides, NFT marketing strategy lies in the creative pairing of NFT with various fields to attract Generation Z. In addition, brands promote NFT by using limited rights and interests, making positive social experiences, and limited co-branding. It is obvious that NFT has significant potential for future growth and will realize its worth in many sectors, despite the constraints of this work in terms of lack of depth of research, lack of current studies, poor technique, and time. Finally, the importance of this work lies in its attempt to evaluate the worth and potential of NFT in light of current theories and regulations. These results offer a guideline for the formation and development of NFT, including price, marketing strategy and brand promotion.

References

- [1] Wang Q, Li R, Wang Q, et al. Non-fungible token (NFT): Overview, evaluation, opportunities and challenges [J]. arXiv preprint arXiv: 2105.07447, 2021.
- [2] Nadini M, Alessandretti L, Di Giacinto F, et al. Mapping the NFT revolution: market trends, trade networks, and visual features [J]. Scientific reports, 2021, 11(1): 1-11.
- [3] Ante L. The non-fungible token (NFT) market and its relationship with Bitcoin and Ethereum [J]. FinTech, 2022, 1(3): 216-224.
- [4] Deng JP, Li JN. The source of value, rights dilemma and response solutions of NFT, the rights credential of digital artwork [J]. Exploration and Controversy, 2022, (06): 87-95+178.
- [5] Zhang Y. A study on the status of NFT based on blockchain technology [J]. Digital Communication World, 2022, (05):149-151.
- [6] Wang Gongming. Value analysis and problem discussion of NFT artwork [J]. China Art, 2021 (04): 38-43.
- [7] Wang Xiaowei. Cold thinking in the gold rush: the construction and challenges of NFT art [J]. China Art, 2021 (04): 20-24.
- [8] Qin Rui, Li Juanjuan, Wang Xiao, Zhu Jing, Yuan Yong, Wang Feiyue. NFT: Blockchain-based non-homogeneous passwords and their applications [J]. Journal of Intelligent Science and Technology, 2021, 3(02): 234-242.
- [9] Ling Jingqi. Should fashion be reset in the era of WEB 3.0? --The production and marketing model and value system of NFT digital fashion goods [J]. Fashion Designer, 2022 (06): 10-16.
- [10] Bai Jiayi. The cosmetic industry also began to follow the trend of NFT, is it a business opportunity or hype? [J]. China Cosmetics, 2022(04): 82-83.
- [11] Shi Yuyuoshi, Zhang Chuyao. Prospects for the integration of NFT and artificial intelligence technology [J]. Electronic Components and Information Technology, 2021, 5(11): 95-98.
- [12] Chen Jidong. Legal imagination beyond the metaverse: digital identity, NFT and pluralistic regulation [J]. Research on the rule of law, 2022 (03): 43-54.
- [13] Liang X. Interpreting the Art Basel market report: NFT art is coming on strong Is it a bubble or a new favorite? [N]. 21st Century Business Herald, 2022-04-11(012).
- [14] Hu Chunyi. The development status and future orientation of NFT art [J]. Culture Industry, 2022(03): 112-114.