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ADOPTION OF NFTS AS DIGITAL ART: The moderating effect of crypto-experience and the role of sustainability

ADOPCIÓN DE NFTS COMO ARTE DIGITAL: el efecto moderador de la cripto-experiencia y el papel de la sostenibilidad

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ABSTRACT

NFT art objects emerged from blockchain technology and have implied a change in the behaviour, format and understanding of art markets. Given the historical evolution of the technology, following cryptocurrencies and tokenization, this raises the question how the intention to use NFTs relates to the perceived value of cryptocurrency technology. To explore this issue, we set up a partial least square structural equation model. The results identify a positive relationship which is moderated by the crypto-experience of users, becoming weaker as experience grows. Social and environmental sustainability considerations turn out to be fully mediated through the perceived value of cryptocurrencies.

PALABRAS CLAVE

NFTs
Arte Digital
Criptomonedas
Experiencia Cripto
Blockchain
Sostenibilidad
Valor percibido

RESUMEN

El arte NFT surge de la tecnología blockchain y ha supuesto un cambio de comportamiento, formato y comprensión del mercado del arte. Dada la evolución histórica de la tecnología, primero criptomonedas, después tokenización, surge la pregunta; ¿Qué relación existe entre usar NFTs y el valor percibido en las criptomonedas? Para explorar este problema, configuramos un modelo de ecuación estructural de mínimos cuadrados parciales. Los resultados identifican una relación positiva, moderada por la experiencia tecnológica de los usuarios, debilitándose a medida que esta crece. Las consideraciones de sostenibilidad social y ambiental actúan a través del valor percibido de las criptomonedas

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1. Introduction

The art market has undergone digital and technological transformations within Industry 4.0, which has changed the way and format consumers buy and value unique art objects. Digital NFT art works are composed of a file which contains a unique and not interchangeable object, non-fungible, together with an immutable history of the work from its creation, the blockchain.

The emergence of NFT Artworks has allowed to overcome some important barriers to the problem of authenticity and ownership in the commercialization of digital objects and has evolved into large digital art galleries based on blockchain technologies, however, it also raises new challenges like digital preservation (Cuesta, Fernández and Muñoz, 2021). Given that the present rewards offered by these markets (markets aroused from blockchain technology), innovations in blockchain technologies are expected to move steadily forward (Gartner, 2021). Since NFTs are receiving increasing attention, becoming a billion-dollar business (Ethereum Foundation, 2022), advances in the understanding of what drives the value and adoption of blockchain technologies like NFTs is crucial for the right value communication and segmentation of users interested in NFT Arts.

The application of NFTs (Non-Fungible Token) focused initially on gaming, which shifted later to the field of arts (Serada, 2021) and allow to reorganize the art market with economic relevant benefits for clients as well as artists, who are given the opportunity to expose their works to a world market through NFT platforms (e.g. Opean Sea, Mintable). An NFT art object is composed of a non-fungible entity together with a history of it from its creation, which has allowed to develop private property of digital assets. NFT arts are sold on blockchain markets and as the value fluctuates depending on the standard economic principles of scarcity and market forces, it has led to auctions of digital art for several billion dollars, for the main artists of this particular universe. For instance, The art market (2021), with a popular Marilyn Monroe painting as NFT being one of the most expensive pieces sold ever.

Given that NFTs are associated to cryptocurrencies as the next step of the historical evolution of the underlying blockchain technology (García-Monleón, Erdmann, & Arilla, 2022), with the increasing interest in virtual worlds and marketplaces these assets and their potential applications, including the metaverse, have boosted the interest in NFTs (Brambilla-Hall & Li, 2021; Kay, 2021) and different media have raised the question whether the demand for NFTs responds to the boom of cryptocurrencies (Forbes, 2021), providing an opportunity of investment based on blockchain technology (Kay, 2021) or it implies a reorganization of the art market with different value assessment depending on the type of agents being artists or curators (Franceschet, 2020). Furthermore, sustainability considerations in the context of blockchain technology have received pressure especially when it comes to the use of NFTs (Truby, 2022), which may affect the behavioural intention of using NFT Arts.

The objective of the present study is to analyse how the adoption of NFTs relates to cryptocurrencies through the value perception of consumers and the role of sustainability considerations.

Specifically, we establish three main hypotheses: (1) the existence of a positive relation between consumers' perceived value of cryptocurrencies and the intention to use NFTs, (2) the indirect consideration of sustainability aspects through the perceived value and (3) the existence of a moderating effect of crypto-experience on the relation between cryptocurrency perception and NFTs.

To address these questions, we set up a structural equation model which is estimated with PLS-SEM based on survey data using validated scales from the blockchain literature on technology adoption.

The results confirm the established hypothesis, allow to derive insights for the value communication of crypto-arts and lead us to suggest segmentation by consumer type within the same market as well as across geographic regions, based on the rate of crypto adoption. Moreover, sustainability considerations have no direct effect of the intention to use NFTs but should be considered in the communication through the overall value perception of cryptocurrencies.

2. Literature review and hypothesis development

The origin of cryptocurrencies as we know them today, can be tracked back to the cyberpunk movement, which has its roots in the science fiction culture of the sixties and seventies. Initially the cyberpunk were not social fighters, but "Classic cyberpunk characters were marginalized, alienated loners who lived on the edge of society in generally dystopic futures where daily life was impacted by rapid technological change, a ubiquitous datasphere of computerized information, and invasive modification of the human body." (Person, 1987).

This movement, living in the margins of society, evolved with the time into social protest, and in the first decade of the 21st century they reacted to the financial crisis of 2007 creating Bitcoin, the first cryptocurrency and blockchain with the standards of what we know today. The author of this creation was named under the pseudonymous Satoshi Nakamoto. Bitcoin was a very ambitious project which was called to be an alternative to the traditional financial system (Nakamoto, 2008; Sauer, 2016).

Initially, Bitcoin was exchanged among the early adopters of the technology in exchange for nothing, just for sensation of being part of a revolution against the established institutions in which they did not trust (Shehhi, 2014; Rogers, 1983; Silinskyte, 2014; Presthus, 2017). The value of the currency was irrelevant. In online historic

files it is possible to find an estimation of its value 1.309,03 BTC for $ 1, established according to the energy cost of mining Bitcoin (Webachive.org, 2009). The first transaction using this asset too place in 2010 when Laszlo Hanyecz paid 10.000 for a pizza.

With the time, this phenomenon expanded, at a slow path at the beginning, but at some point, in its history, the market detected a potential use for this kind of currency, thanks to one of its main features, anonymity. In 2011, Ross Ulbricht, making use of the mentioned anonymity, launched Silk Road, an e-commerce site, with the differential aspect that everything that was traded within its platform was mainly illegal. Now, the idea of a system alternative to the traditional one and outside the boundaries of institutional control took shape.

The main consequence of the arrival of this site was that it provided a real purpose to Bitcoin and hence true value. The currency in a couple of years passed from having no worth to a conization over 1.000$. (CoinMarketCap, 2022; Ciaian, 2016).

This site didn't last for long and in October 2013 it was closed by the FBI, but the awareness around this new technology and its possibilities had already permeated the market. Crypto currencies offered an interesting possibility further to its anonymity, the possibility of making money thanks to speculations. This new technology had arrived to stay.

Blockchain, as any other technology, evolves with time and in 2015 the Ethereum network arrived. Its main difference was that it allowed a wide array of alternative uses, apart from being a payment system. Through its network it was possible to run decentralized applications, smart contracts and assets different from its native currency Ether (Ethereum Foundation, 2022).

This technological leap had the consequence of boosting the value of the crypto market over 0,7 trillion dollars in 2017 (CoinMarketCap, 2022), but apart from the economic effect, the additional functionalities attracted technology adopters driven by different purposes, among them artist who found a new space to share their creations, some of them entirely new and native of the technology.

Initially these new digital assets, native of the blockchain technology, arrived like a game in the shape of the phenomenon called crypto kitties (Serada, 2021), nonetheless it opened the door to a new potential for the blockchain technology, the art market, giving birth to the new concept of virtual art galleries like Open Sea (Brambilla-Hall & Lee, 2021; Kay, 2021). This evolution is relevant because more than a technological leap, represents a technology adoption revolution. A technology born as a social protest has evolved and expanded to a different field and purpose, art.

Considering the market of arts, Gombrich's theory considers that the viewer is the one who constructs the image (Castiñeyra, 2014). Tortosa (2011) considers that science teaches us what we see and art teaches us how we see it. Piazza (2022) highlights the relationship between artworks and society to identify relevant structures and factors. Given these different approaches, technology is one more way of seeing and understanding art. With the development of technology, art as other sectors, has been able to find its space, what has been called digital art, and has continued to evolve into what literature has called "crypto-art".

The NFT technology (Non-Fungible Token) certifies that the digital work we are acquiring is original, even though it belongs to the intangible digital world, that is, non-material. Its structure implies that, together with the digital file containing the artwork, it includes a cryptographic certificate warranting its authenticity. It is a non-modifiable file, in order to verify its originality, containing a chain of linked data called blockchain, which contains the history of the file from its creation. On the other hand, the NFTs have the characteristic of being non-fungible, meaning that it represents a unique entity which cannot be interchangeable for another, as it otherwise happens with cryptocurrencies (Mascarell-Palau, 2021).

Physical and unique works of art are acquired in art galleries or in-person auctions; however, NFTs are acquired through virtual galleries on the Internet. The digital work has the particularity of increasing its value the more it is disseminated, shared and used by Internet users on the network, "the greater the expansion of the work, the more its value rises and the better benefits it can bring to the owner of its rights" (MacNeil and Mak 2007, p.45).

This is an approach of some complexity, due to its recent implementation. Furthermore, it raises doubts about digital preservation, because the passage of time implies the obsolescence of hardware and software (Cuesta, Fernández and Muñoz, 2021).

Collecting is a form of accumulation that produces prestige through the exhibition of what is possessed (Pinillos, 2007). It is an activity closely linked to the social nature of man in which a form of socializing is allowed, using as justification the accumulation and exhibition of these of objects (Fernández-Hernández and García Muiña, 2019). Collecting or owning art allows, the collection of information emanating from the objects that are collected that, together, make up knowledge (Pomian, 1993). Consumption as we know it today comes from the twentieth century, specifically from industrialization with the production of mass-produced objects and with it the possibility for anyone to become a collector (Murillo, 2006). The value of collectibles is measured according to their originality and particular characteristics. Therefore, a collectible which is unpublished and unique is worth more than that of which there are multiple replicas (Ruiz and González, 2022). The human need to collect in today's world has transcended physical objects; nowadays, with the development of the Internet, users collect

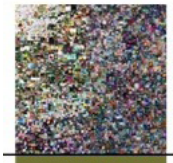
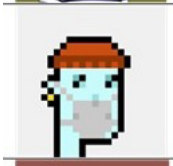
digital files containing: songs, images, photographs, texts, books in PDF, etc. (Ruiz and González, 2022) and thus the need arises to have a digital system that protects the authorship of a work, as well as the possession of it. These collectible contracts can be programmed from Ethereum (https://ethereum.org/en/), which is an open source platform and is where NFTs are born and maintained as well as other cryptocurrencies; which basically uses blockchain technology (Wang, et al., 2021).

Where these NFTs are traded is on digital active marketplaces, such as OpenSea (https://opensea.io/) or Mintable (https://mintable.app/). OpenSea was born in 2018 and describe themselves as the first digital venue, or digital marketplace, for cryptocurrencies and non-fungible tokens. It claims to be the world's largest NFT marketplace, featuring art and virtual reality products, sports and collectible cards. It hosts 200 categories and 4 million products available (Mascarell-Palau,, 2021). NFTs have become something of a buzzword in the digital art spheres as they enable secure and authentic trading of digital assets. Through NFTs, digital art artists can sell their work securely, as non-fungible tokens and their smart contracts enable the addition of attributes as well as the identity of the owner, which help artists to register authorship rights in their work (Alexandrovna, 2021).

Since the late 2020s, as a consequence of the COVID-19 pandemic and the incursion of digitalisation into people's private lives, the emergence of NFTs impacted on the sale of digital art, being a topic that attracted the attention of the media and major auction houses (Franceschet, 2021).

Digital art in the form of crypto-art generated great popularity for NFT with the sale of the so-called "Everydays: The First 5000 Days" by Mike Winkelmann, known as Beeple, who first published a work of art online on 1 May 2007. This creative work includes drawings of diverse inspirations: political satire, Donald Trump and Hillary Clinton and the most popular politicians; caricatures of characters, events of global resonance, such as the tribute to the Black Lives Matter movement. After 13.5 years of including his product in the digital market, he managed to sell this digital asset for $69.3 million (57 million euros) and this thanks to Christie's NFT auction house (Murray, 2021). The buyer of this work received in exchange for his millions of dollars a digital token certifying him as the owner. Some of the NFTs sold that achieved the highest sales figures are illustrated in table 1.

Table 1. Most relevant NTF transactions

WORK IMAGE	WORK NAME AND AUTHOR	MARKET PRICE	ART GALLERY
	Everydays: The First 5000 Days Beeple	69,3 millones	Christie's
	101 Bored Ape Yacht Club Yuga Labs	24,4 millones	Sotheby's
	#7523 CryptoPunk	11,8 millones	Sotheby's
	#7804 CryptoPunk	7,56 millones	OpenSea
	#3100 CryptoPunk	7,51 millones	Sotheby's

Source: Own elaboration, 2022

NFT marketplaces allow owners to display their purchases as in a gallery, online museum or auction house, enabling artists to earn income by posting their artwork on auction houses and attracting buyers who are willing to pay the value of their work; digital money is used for transactions.

A relevant number of structural models have been designed, tested, redesigned and improved to explain technology adoption for value exchange, rooted in the seminal work by Davis (1987) on Technology Adoption Models (TAM) followed by several extensions and the unified theory of technology adoption models (Venkatesh, 2003, 2012)). This approach has also found application to blockchain based technologies such as cryptocurrency adoption (e.g. Nadeem et al., 2021). Examples related to value exchange are also Magotra (2017), who studied the perceived value of banking products based on subjective usefulness which drive its adoption. This line of reasoning applies also to the use of NFTs, since the decentralized, anonymous, and low control access to the technology has been perceived by its adopters as a form of usefulness (García-Monleón et all, 2022). Likewise, in the context of technology adoption models, performance expectancy has been identifies driver for value perception of cryptocurrencies (Ter Ji-Xi et al., 2021). Furthermore, given the historical background of cryptocurrencies and blockchain its not surprising to find trust as another important driver for adoption of cryptocurrencies (Abassi et al., 2021). Again, given the emergence of NFTs as next step of blockchain technology these are only some of the aspects captured in the value of cryptocurrencies, which is expected to be relevant for NFT adoption.

Taking it all together, the relationship between cryptocurrencies and NFT Arts is twofold: given the evolution of blockchain technologies and the underlying exchange medium. NFT Arts, as the tokenization of art objects, capture the value of digital art in cryptographic files, guarantee authenticity and facilitates the commercialization of digital arts in blockchain markets. Hence, considering the intention to use NFTs, this leads us to establish the following hypothesis:

H1: Value perception of cryptocurrencies drives NFT technology adoption

However, the increasing interest in blockchain technologies has also raised sustainability concerns as well as opportunities for the design of smart solutions. As defined by the United Nations, the Sustainable Development Goals (SDG, 2022) establish the goals that the global community must work towards in order to achieve a sustainable future. In this line, in recent years, sustainability considerations have gained increasing importance from the investors point of view, nothing to be surprised given the pressure imposed on companies by international institutions (OECD, 2020).

Respective blockchain technologies, opportunities for smart solutions as well as theats have been raised. For instance, Rocamora and Amellina (2018) conduct an analysis on how Blockchain technology could contribute to the fulfilment of the Sustainable Development Goals (SDGs). The authors state that the SDGs that relate most strongly to Blockchain applications are SDGs 8 (decent work and economic growth), 9 (industry, innovation and infrastructure), 10 (reduced inequalities) and 16 (peace, justice and strong institutions). This can be complemented by García-Monleón et all (2022), who highlight apart from growth achieved with decent working conditions through shared economy schemes (SDG8), additionally the access to financial markets under equal opportunities (SDG1) and the design of smart cities (SDG11). That is, most applications of blockchain could foster economic growth and innovation, improve transparency and accountability of organisations, and empower small economic actors and the most vulnerable populations (Sarro & Cesetti, 2019). Furthermore, blockchain technology could drastically change several industries and shows potential in several fields (Tapscott & Tapscott, 2018). However, also environmental concerns have been raised in terms of the contamination and energy intensive mining process (Jiang et al., 2021).

In this work, the effects of social and environmental sustainability in technology adoption models is considered as possible drivers for NFT technology adoption. In the context of the SDGs, technological developments become a fundamental driver for sustainable solutions (Ahvenniemi et al., 2017) from different perspectives like social or environmental, all of them being individual manifestations of the same idea, a sustainable approach to everyday life (Toussaint et al., 2021).

However, the adoption of blockchain technologies, in particular NFTs, is not yet consolidated (Gartner, 2021) and the evolution is expected to determine value perceptions. Hence, we expect that sustainability considerations in the context of NFT adoption take mainly place through the value perception of cryptocurrencies, which leads to our second hypothesis:

H2: The effect of sustainability considerations is mediated through the perceived value of cryptocurrencies.

Finally, as consequence of the established link between cryptocurrency and NFTs in the discussed literature, we expect experience with the technology to determine the relationship between cryptocurrency and NFT adoption.

H3: Crypto-experience moderates the relationship between the perceived value of cryptocurrency and intention to use NFTs

3. Methodology

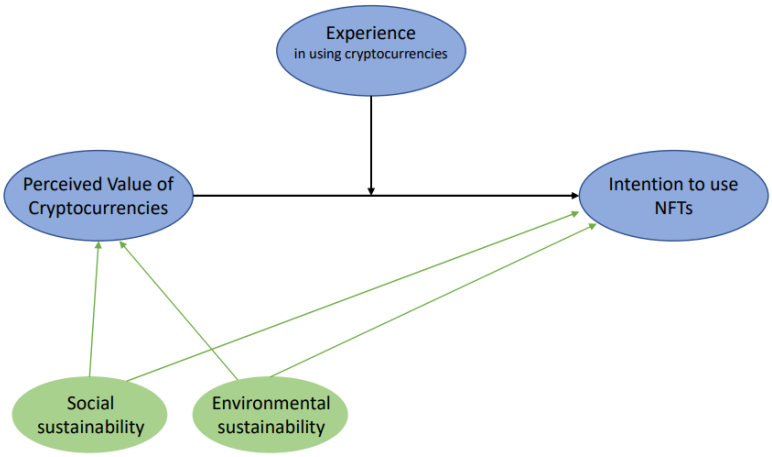
The model developed for this work derives the intention to use NFTs from perceived value in cryptocurrencies. Concretely, we set up a structural equation model as illustrated in Figure 1, to study the relationship between the perceived value of cryptocurrency and the intention to use NFTs as digital art. Concretely, the perceived value of cryptocurrency is modelled as antecedent construct of the intention to use NFTs, being potentially moderated by the crypto-experience. The model is estimated using a PLS-SEM approach (Hair et al., 2019, 2016; Garson,

2016), which is considered appropriate for our explorative research on the user intention of NFTs since it allows to combine a predictive approach and confirmative approach and provides a good performance also for small sample size (Sarstedt et al., 2021).

An online survey is elaborated based on validated scales. Concretely, the measurement scale of the intention to use NFTs has been adapted from Nadeem et al. (2021) who consider the adoption of cryptocurrencies. The perceived value of cryptocurrencies is measured on an adapted scale from Kim et al. (2007). Sustainability considerations are differentiated in social and environmental perspective, with the scale of social sustainability (in terms of equal opportunities and cooperation) being adopted from Grappi et al. (2013) and environmental sustainability from Cervellon (2012).

A total of 175 valid responses enter the analysis, with the profile of respondents being on average 27 years old, 63% male, 50% students of higher education and higher education students. The reliability of the construct and convergent validity have been verified and meet the established critical values (e.g. Hair et al., 2019), which is as expected using validated scales. Moreover, we carry out a discriminant analysis using the Heterotrait-Monotrait criteria, with all the HTMT correlations being lower than one (Henseler et al. , 2015). The model is estimated as PLS-SEM using the SmartPLS software.

Figure 1. Structural Model on the relationship between cryptocurrency and NFTs



Source: Own elaboration, 2022

4. Results

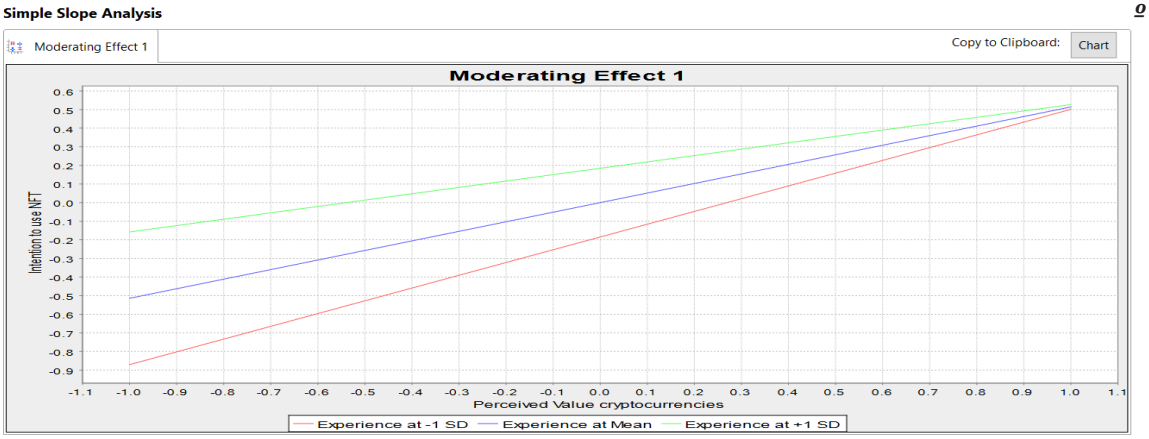
The estimated path coefficients and corresponding p-value are presented in table 2.

Table 2. Estimated path coefficients

Path	Path coefficient	P-Values
Experience Intention to use NFT	0.185	0.031
Moderating Effect 1 Intention to use NFT	-0.172	0.002
Perceived Value cryptocurrencies Intention to use NFT	0.514	0.000
Environmental sustainability Intention to use NFT	0.074	0.243
Environmental sustainability Perceived Value cryptocurrencies	0.446	0.000
Social sustainability Intention to use NFT	0.027	0.717
Social sustainability Perceived Value cryptocurrencies	0.445	0.000
Social sustainability Intention to use NFT	0.027	0.684

Moreover, figure 2 illustrates the moderating effect of experience in the relation between CC and NFTSs. As can be appreciated from the figure, as the perceived value of cryptocurrencies increases, so does the intention to use NFTs. However, as the users' experience with cryptocurrencies increases, the slope of the graphical relation between CC and NFTs decreases (becomes a flatter line). That is, with increasing crypto-experience the relationship between perceived value of CC and NFTs becomes weaker.

Figure 2. Moderating effect of crypto-experience



5. Discussion of results and Management Implications

The positive relation between the perceived value of cryptocurrency and the intention to use NFTs confirms our expectations (H1) based on the evolution of the two blockchain technologies. For the value communication these results suggest that addressing the overall value of cryptocurrency use may boost the interest in using NFTs

The identified moderating effect of crypto-experience on the relationship between the perceived value of cryptocurrencies and the intention to use NFTs (H2) suggests that the relationship between the two blockchain based technologies diminishes as users gain crypto-experience. We argue that this is the case since cryptocurrencies are a digital medium for value exchange and the underlying transaction mechanism in general necessary to obtain NFTs, however, the nature of NFTs as art products is different and hence the behavioural intention becomes more and more independent from the value consideration of cryptocurrencies.

Given the state of cryptocurrency in the Gartner hype cycle of blockchain technologies (Gartner, 2021), we expect that when being fully consolidated, that is once it reaches the plateau of productivity, the effect between the value of cryptocurrency and NFTs may even completely vanish. That is, our conjecture is that NFTs as digital arts are a different market than the use of cryptocurrency. As soon as cryptocurrencies is considered just another medium of payment to exchange and transfer value of digital arts, it is the value of NFTs that matters, rather than the technological evolution of associated payment mechanism.

In general, we argue that the motivation of using NFTs needs to be differentiated in the promising utility in itself for particular applications (e.g. gaming, collectionism, metaverse properties) and financial motivations originated in the nature of cryptocurrencies. Both motivations include the investment in NFTs because of the FOMO effect in these areas (fear of missing out) and partially explain an observed downturn on NFT interest (as discussed by Armstrong, 2022) on the one hand but a prediction of promising investment rewards on the other hand (Ethereum Foundation, 2022)

The differences in the crypto-experience of users allows for segmentation between consumer types. Going one step further, considering differences across countries in the crypto adoption, Chainalysis (2021) develops a Global Crypto Adoption Index which identifies Vietnam, India and Pakistan as the countries with the highest level of cryptocurrency activity by ordinary people (non-professional, individual cryptocurrency users, contrary to professional or institutional use). United States being ranked at 8th and China at 13th position. Given our results, this suggests that especially in Vietnam the relationship between cryptocurrency adopters and NFT adopters is expected to be weak, given that cryptocurrency is very much consolidated. However these cross-country interpretations have to be interpreted with caution since the sample of respondents are all from one country. To generalize the results we would need to extend the sample data.

Sustainability considerations in the intention to use NFTs act only indirectly through the perceived value of cryptocurrencies (H3). Social sustainability becomes especially relevant in the arts sector where only few people can life from arts. The emergence of NFT Arts has facilitated the commercialization of the work and provide market access to a large public, overcoming geographic barriers. However, the effect of sustainability considerations on the intention to use NFTs is fully mediated through the perceived value of cryptocurrency, which captures these values. The same is true for environmental considerations, which suggests in the NFT context to link any communication of sustainable aspects to the value of cryptocurrencies rather than directly to NFTs. That is, we have detected an indirect effect of sustainability dimensions in NFT adoption through its contribution to the value perception and hence adoption of the original technology embodied by cryptocurrencies. However, once a technological evolution separates from its origin, this may change, taking on its own identity, including

sustainability perception, and hence needs to be interpreted with reference to the current state of user adoption traits.

The need for a better understanding of the new market forces in the arts market is also emphasized considering the most innovative job trends, with the arts sector being one of the most promising areas, directly followed after engineering and computing (Schleicher, 2022).

6. Conclusion

Understanding the adoption of NFT requires a deep understanding of the value and rewards perceived by its users from a perspective as art objects on the one hand and the evolutionary perspective based on the value of cryptocurrencies.

Given the complexity of technology adoption in value exchange relationships and the still scarce academic literature on NFTs, this paper contributes to the understanding of the intention to use NFTs. Using a structural model approach we identify the positive effect of the perceived value of cryptocurrencies on the use of NFTs, which becomes weaker as consumers' crypto-experience increases. Moreover, the effect of sustainability concerns in the use of NFTs is fully mediated through the perceived value of cryptocurrencies.

We identify that the value perception in cryptocurrencies drives NFT technology adoption. This result is coherent with the historical evolution of blockchain technology, which brought cryptocurrencies in the first place, creating social awareness and adoption of the blockchain technology and following a logical reasoning path social interest for the technological phenomena arising from the evolution of the original technology.

It should be expected that dimensions like social or environmental sustainability shall trigger NFT technology adoption as well, but the analysis of the data show that there is not a direct effect between sustainable dimensions and the adoption of NFTs but acts through the perceived value of cryptocurrencies. We argue that once a technological evolution separates from its origin, develops its own identity embodied with its own user adoption traits.

Interestingly, we identify that the relationship between cryptocurrency evaluation and NFT adoption weakens as crypto-experience increases. This emphasises that it's also important to take into consideration that it's not only technology that evolves, but also users do, as they gain experience which change their motives and hence their technology adoption pattern (García-Monleón et all, 2022). As technology adopters of blockchain gain experience in the field, their reasons for the adoption of NFTs are less driven by their value perception of the original technology and is more based on their opinion and value perception of the new technological reality, driving the last hypothesis:

To sum up, the result emphasizes that as a new technology appears the way to assess its value comes from its antecedents and history, in this particular case its history is the history of blockchain and cryptocurrencies. As time passes and the new technology is widely accepted, user experience appears and hence value perception on the new phenomena becomes the main driver for technology adoption.

Our research provides the first step towards a better understanding of NFT adoption and given the early stage of user experience of only four years, as time passes and the technology becomes more consolidated consumer behaviour is also expected to evolve and additional insights may be derived as user experience spreads through the society.

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