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The Rise of the Non-Fungible Token (NFT) Market in Turkey: The Effect of Social Media Interaction and the Need for Uniqueness on NFT Purchase Intention*

https://doi.org/10.1515/roms-2022-0065
Received August 24, 2022; accepted November 10, 2022

Abstract: With the spread of crypto assets, Non-Fungible Token (NFT) technology has become more and more discussed on social media platforms. The idea of uniqueness is in the background of the NFT technology used to make digital assets tradable and registerable. This study investigates the effect of consumers' social media interaction and the need for uniqueness on NFT purchase intention. The research data was collected from 488 consumers who follow NFT purchasing sites. The results highlight the critical role of the need for uniqueness to leverage the NFT purchase intention. Analyzes were made with SPSS and AMOS statistical package programs. The validity and reliability of the scales used were tested and found to have acceptable values. The study tested possible cause-and-effect relationships between all variables using structural equation modeling. According to the findings, social media interaction, creative choice, unpopular choice, and similarity avoidance positively and significantly affected purchasing intention.

Keywords: nft, non-fungible token, nft marketing, need for uniqueness, social media interaction

1 Introduction

NFT is a tradable digital asset that represents ownership based on blockchain technology. It is defined as a unique, indivisible, and verifiable technology representing a particular digital asset (Regner, Urbach, and Schweizer 2019). NFT and blockchain technologies create a new chance for companies to decentralize

*This paper was previously presented as a presentation at the III. International Academician Studies Congress 2022, May 13-16, 2022, Osmaniye, Turkey.

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distribution power. With the rise of interest in digital art, the NFT market has expanded very rapidly in recent years. Every NFT owned is processed in a distributed structure on a blockchain ledger (Chalmers et al. 2022). With the blockchain, digital transactions are kept permanently and instantly between nodes on the network. This immutable cryptography-based database makes transactions reliably and transparent (Nakamoto 2008). NFTs, becoming increasingly common in gaming, is expected to be used in finance and digital art in the future (Popescu 2021). The infrastructure of NFTs, which appear as works of art, pictures, music, videos, and games, is based on the blockchain formed by crypto money. The volume of this newly developing market, which is different from the crypto money market, has reached billions of dollars (Ko et al. 2022). While the NFT market size was $1 billion in 2020, it was $40 billion in 2021 (Versprille 2022). OpenSea is the first and largest NFT market, with over $6.5 billion in transaction volume. The biggest sale in NFT market history is Pak's "The Merge." It sold for $91.8 million in 2021, making it the most expensive NFT (Sönmez Karapınar 2022).

Traditionally, auction sites and online marketplaces have focused on convincing consumers that transactions like NFT are safe and risk-free (Chohan and Paschen 2021). Literature reviews of new technologies such as blockchain and NFT indicate that there is a lack of marketing (Stallone, Wetzels, and Klaas 2021).

This study explores the impact of consumers' social media interaction and needs for uniqueness on NFT purchase intention. The fact that consumers want to enter such a new technology quickly and pay so much has formed the starting point and motivation of the research. Due to the newness of this technology, research in the marketing field is still very limited compared to information technologies and finance on NFT purchase intention. Therefore, this article will provide further discussion to identify challenges and uncover opportunities in the NFT purchasing process for businesses. Moreover, the term NFT and Blockchain are explained, and their effects on marketing are discussed using their impact on social media in this article.

2 Literature Review and Theoretical Background

The first application of blockchain technology was proposed in 2008 when Satoshi Nakamoto published a white paper on Bitcoin, a decentralized cryptocurrency. An immutable read-only data structure whose blocks are added to the end of the ledger via the link of the previous block (Nakamoto 2008). Blockchain technology is a distributed ledger with a peer-to-peer network where every node has a copy. Because each node follows the same protocol, it uses an algorithm to keep its copy consistent with the others and to manage to add new blocks to it. Users can interact

with nodes to add transactions, but changing and deleting them is theoretically impossible (Six, Herbaut, and Salinesi 2022). Since NFTs are stored in a digital ledger called a blockchain, transactions are made reliably and transparently using a cryptography-based database. Encrypted data is permanently and instantaneously processed in a distributed structure to the registry among nodes on the network (Çallı 2021).

Persistence, immutability, originality, and uniqueness are integral parts of the NFT industry. NFTs are different from each other, so they cannot be copied (Chevet 2018). NFT, known as immutable tokens, is a relatively new and emerging phenomenon that is revolutionizing the trading of digital assets. NFTs contain firm rights to unique digital assets such as digital artwork or collections. They are digital tokens whose infrastructure is based on blockchain technologies and can be traded in online markets. After digital art NFTs were sold at a public art auction for $69 million, NFTs have adapted to the new digital art world of art auctions. Thus, NFTs revolutionized content creation and exchange for fans, artists, art collectors, and sports clubs (Wilson, Karg, and Ghaderi 2021). Businesses do digital marketing with NFTs to create a strategic plan and keep up with changing conditions. Major brands such as Clinique, Coca-Cola, McDonald's, Ray-Ban, Dolce & Gabbana, Burberry, Givenchy, and Gucci have quickly taken their place in the NFT market. In the NFT market, shopping transactions are generally made in internet-based environments such as Opensea, SuperRare, Nifty Gateway, Raible, Zora, and Mintable. Most of this sales volume is concentrated on a site called OpenSea. Most of this sales volume is focused on a site called OpenSea (Ante 2021).

Blockchain technology can be used to authenticate original content (Kietzmann et al. 2020). Blockchain applications in marketing, marketing management, payment, loyalty programs, digital marketing, reviews-credential management, and supply chain management were evaluated. It has been shown how blockchain can disrupt marketing mix processes. In addition, the benefits and challenges that will arise from adopting this technology have been revealed (Antoniadis, Kontsas, and Spinthiropoulos 2019). The difference between NFTs and cryptocurrencies is that NFTs can trade, sell or tokenize cryptocurrencies. However, NFTs are digital asset that has value and can be collected, but because they are unique, they cannot be traded. Like cryptocurrencies, NFTs are also traded. It is traded on unique platforms such as OpenSea. NFTs are digital assets that have revolutionized how content is created, exchanged, stored, and authenticated for content creators (Malhotra et al. 2022). The NFT system is a blockchain-based application. In a blockchain system, each block has a limited capacity. When the capacity in a block is total, other transactions enter a future block linked to the original data block. In the end, all linked blocks form a long-term history that remains permanent. When an NFT is sold, a new transaction is required to initiate and send the smart contract.

After the transaction is confirmed, the NFT metadata and ownership details are added to a new block. This ensures that the NFT's history remains unchanged and ownership is preserved (Wang et al. 2021, p. 7).

Sönmez Karapınar (2022) presented the stages of the consumer purchase decision journey in NFTs and the modified AIDA hierarchy to contribute to marketers' understanding of what NFT is and how to start using it. In the study, when NFTs are viewed from this perspective on the consumer buying journey, what businesses should do is expressed in three ways. In the study, when NFTs are viewed from this perspective on the consumer buying journey, what businesses should do is expressed in three ways. First, it was emphasized that businesses should identify key aspects at each stage and try to understand both the business and consumer perspectives of the purchasing journey. Second, it has been suggested that businesses begin to identify specific elements or touchpoints that occur along this journey. Third, it was explained that it would be beneficial for businesses to identify specific trigger points that cause customers to continue their purchasing journey and turn them into advocates who will share and promote the NFT product on behalf of the business. NFTs are one-of-a-kind digital assets that can be traded (Wilson, Karg, and Ghaderi 2021). It is predicted that NFTs will challenge the traditional marketing understanding in terms of originality and distribution (Hofstetter et al. 2022). When consumers encounter a scarce resource, they usually want to gain a competitive advantage over others (Sharma and Alter 2012). Therefore, they try to obtain it to achieve their desires (Sengupta and Zhou 2007). Zhang (2022) explained how cryptocurrencies and NFTs are valued. In this direction, Colicev (2022) explains how NFTs can become independent brand assets and create value for brands. Based on the idea that NFTs can be independent brand components and harness the power of brand communities, brands influence consumers throughout the marketing funnel.

Consumers always consider trust and risk when deciding whether or not to make a purchase. In addition, consumers rely on other external factors, which they call institutional structures when making purchasing decisions. Therefore, institutional factors affect whether consumers consider trust and risk when purchasing. Also, when consumers identify a scarce resource, they often seek to acquire it to gain a competitive advantage over others. Therefore, marketers are encouraged to promote the perception of scarcity to capitalize on consumers' desire to have scarce resources. NFT is also a viable area for marketers when there is a record of ownership of an unprecedented scarce resource based on decentralized blockchain technology (Birch 2022; Chohan and Paschen 2021). It is also predicted that this digital ownership, uniqueness, and built-in authenticity about value will change the traditional marketing understanding. As NFTs evolve,

so will the marketing understanding of consumer behavior, pricing, and product design (Hofstetter et al. 2022).

This study has been adopted from Theory of Reasoned Action (Fishbein and Ajzen 1977). The Theory of Reasoned Action states that individuals' beliefs about performing a behavior can change as a function of various background factors such as: individual (personality, values, and general attitudes), social (culture, religion and ethnicity), and information (media, and information). These beliefs then influence attitude towards behavior, which is one of the critical predictors of behavioral intention (Ajzen et al. 2018). It is the process that a consumer goes through before, during and after the purchase. This processes are triggering, awareness, reflection, transformation, pleasure, and advocacy. Based on this, Need for Uniqueness and Social Media Interaction as an individual factor is expected to predict consumers' intention to purchase NFTs.

3 Hypotheses Development

3.1 Social Media Interaction

Social media interactions allow individuals to access information on social media and potentially interact with the information provider. Thus, it increases consumers' knowledge about the product and the depth of this information (Efendioglu and Durmaz 2022; Onofrei, Filieri, and Kennedy 2022). That's why many consumers interact with communities on social media to gather more information about specific products and brands (Bazi, Filieri, and Gorton 2020; Efendioglu and Durmaz 2016). From another perspective, social media interaction is the name given to the communication between the brand and the social media member or between the phenomenon and its followers. Statistics such as the number of posts on Twitter, Instagram, and Facebook can be given as examples. It is an important metric that affects social media performance. It provides a better assessment of communication resources' reliability and level of expertise to enable users to develop stronger, quality relationships. Consumers can share ownership of an NFT on social media or as a status symbol. In addition, NFT's original creator makes posts about NFT, which he wants to highlight on social media, as he profits from every sale. Also able to resell NFT to other consumers on social media (Chohan and Paschen 2021). Accordingly, the following hypothesis has been proposed:

H_1: Social media interaction positively and significantly affects NFT purchase intention.

3.2 Need for Uniqueness (NFU)

NFTs in terms of marketing; It has the characteristics of immutability, originality, scarcity, inviolability and ownership. NFTs are assets that are not similar to each other and are considered unique. Since NFT cannot be divided, deleted or changed, it is a document of the uniqueness and originality of a digitally produced content (Sönmez Karapınar 2022). Immutability is due to the fact that NFTs are recorded on a blockchain, that is, a decentralized network of computers and algorithms that verify and validate every record on the network (Morkunas, Paschen, and Boon 2019). NFT is a record of the ownership or legality of an asset, not the thing itself. It means that the person who legally buys an NFT has traditional property rights such as resell, lease, give away. NFTs are scarce in the digital world and can quickly become valuable because they are easily tradable. Despite affordable products such as money, non-exchangeable products have a unique and distinguishable feature. Due to this feature, they cannot be divided or replaced with another identical item (Bamakan et al. 2021).

In terms of consumer behavior, the need for uniqueness is defined as the pursuit of difference from others by acquiring, using, and disposing of consumer goods to improve one's self-image and social image (Tian, Bearden, and Hunter 2001). The need for uniqueness has three dimensions: creative choice, unpopular choice, and similarity avoidance. Creative choice means that consumers seek the social difference from others but also make choices that are considered reasonable by others. Indicates the selection or consumption of products and brands that deviate from unpopular selection group norms. Similarity avoidance means losing interest or disusing popular products and brands (Efendioglu, Mutlu, and Durmaz 2020; Tunçel 2021). It is manifested in consumption choices that are likely to be considered unique in one's social context and likely to be approved by others (Snyder and Fromkin 1977). It refers to consumers' use of products that deviate from social norms. Such choices risk social disapproval but can still improve self and social image (Tian, Bearden, and Hunter 2001). Finally, it refers to an effort to avoid using widely adopted products. It causes consumers to avoid purchasing or stop using products after they become widespread. In this direction, the following hypotheses have been put forward: Social media interaction positively and significantly affects NFT purchase intention.

H_2: Creative choice positively and significantly affects NFT purchase intention.

H_3: Unpopular choice has a positive and significant effect on NFT purchase intention.

H_4: Similarity avoidance positively and significantly affects NFT purchase intention.

4 Methodology

The literature review framework will examine the effect of social media interaction and the need for uniqueness on purchase intention. Because this study aims to explore the proposed effects in the conceptual model empirically, quantitative analysis is suitable. The following subsections report the details of the measurement of variables, data collection, and data analysis. Possible cause and effect relationships between variables were tested using structural equation modeling. Within the literature review framework, a research model was developed that shows the relationship between the variables.

4.1 Measurement Development

A questionnaire was developed by adopting the measurement scale items from previous literature. They were adopted by Onofrei, Filieri, and Kennedy (2022) and Wu et al. (2012). Since the questionnaire was administered in Turkey, a professional translator translated the instrument's English version into Turkish. The questionnaire was then reverse translated into English to confirm translation equivalence.

4.2 Data Collection and Sample

In the study, convenience sampling from individuals aged 18 and over from various provinces of Turkey was used. We collected data with Google forms from 497 consumers interested in NFT. However, they did not include 9 participants in the analysis because they provided incorrect and incomplete data. Therefore, the number of samples was accepted as n = 488. First of all, the participants in the research were asked as a filter question whether they wanted to buy NFT or not. If the participant thought about buying NFT, who continued other questions. The data collection part was collected in two parts. In the first part of the form, there are demographic questions to determine the gender, marital status, age, occupation, education, and income status of the participants. In the second part, there are questions about creative choice, preference for unpopular choice, similarity

avoidance, social media interaction, and purchasing behavior of the participants. In this context, the questions in the second part consist of 5 sub-dimensions. These dimensions are; There are 18 items in total: creative choice four items, unpopular choice four items, similarity avoidance four items, social media interaction three items, and purchase intention three items. All the questions in this section are on a five-point Likert scale, from 1 being "strongly disagree" to 5 being "strongly agree."

The data collection process consisted of two stages, the main study, and the pilot study. Before the primary research started, a pilot application was made to 63 people to determine the applicability of the questionnaire. The intelligibility, reliability, and validity of the pilot application were tested. As a result of the pilot application, it was evaluated that what understood the questions and the questionnaire was suitable for analysis.

5 Results

The univariate normality was studied using skewness-kurtosis results (Hair et al. 2010; Kline 2011). This study examined skewness and kurtosis values to test the normality distribution (Tabachnick and Fidell 2013). Skewness and kurtosis values were tested for the normality distribution. As a result of the analysis, it was determined that the kurtosis value was between –0.225 and 0.895. With this, the skewness value was between –0.114 and 0.771. Since skewness and kurtosis values were between –1.5 and +1.5, it was accepted that the data showed normal distribution (Tabachnick and Fidell 2013). Also, the Multiple Normality Distribution and Kolmogorov-Smirnov test were suitable for normal distribution.

5.1 Descriptive Statistics

Participants consisted of 488 people, 142 women, and 346 men. Male participants are more. Singles in marital status are higher, with 68% of the participants being single and 32% being married. In addition, when the age distributions are examined, the majority are under 35 and have a university-level education. In addition, most of the participants are public and private sector employees. When read in terms of income levels, the majority receive monthly wages below 300$. Obtained results are shown in Table 1.

Table 1: Frequency analysis of demographic data.

Demographic variable	Categories	n	%
Gender	Female	142	29.1
	Male	346	70.9
Marital status	Single	332	68
	Married	156	32
Age	18–24	201	41.2
	25–34	145	29.7
	35–44	77	15.8
	45–54	41	8.4
	55–64	14	6.3
	65 and above	10	2.1
Employment status	Student	96	19.7
	Public sector employee	128	26.2
	Private sector employee	112	23.0
	Owns a private business	95	19.5
	Housewife	5	3.2
	Retired	12	3.3
	Unemployed	65	13.3
Education level	Above college	25	5.1
	High school	78	15.9
	Associate degree	86	17.6
	Bachelor	258	52.9
	Master or PhD	41	8.4
Monthly income	300$ and below	161	33.0
	301$–600$	135	27.7
	1201$–1800$	62	12.7
	1801$ and above	130	26.6

5.2 Measurement Model

Cronbach's Alpha (CA) reliability, Construct Reliability (CR), and Average Variance Extracted (AVE) were examined for reliability and other validity analysis of the scale. Obtained results are shown in Table 2. Exploratory factor analysis was used to determine the construct validity of the scale. It was seen that the results of the KMO test (0.427) and Bartlett's test (0.001) were also suitable for factor analysis. According to the results of the research, the expressions were loaded on five factors again. In total, the explanatory rate was calculated as 68.14%. In this case, it was determined that the scale used was distributed according to the purpose of preparation. The results obtained are shown in Table 3. For validity, it was examined whether the validity of the factor structure was confirmed by

Table 2: Overview of the measurement model.

Factor	CA	AVE	CR
Creative choice	0.82	0.65	0.88
Unpopular choice	0.78	0.68	0.89
Similarity avoidance	0.84	0.74	0.92
Social media interaction	0.85	0.71	0.88
Purchase intention	0.82	0.72	0.89

Table 3: Exploratory factor analysis.

Variable	1	2	3	4	5
cre-cho1	0.785				
cre-cho3	0.791				
cre-cho2	0.779				
cre-cho4	0.875				
unpop_cho4		0.822			
unpop_cho2		0.815			
unpop_cho3		0.841			
unpop_cho1		0.821			
sim_avo3			0.843		
sim_avo2			0.864		
sim_avo1			0.887		
sim_avo4			0.852		
soc_int1				0.869	
soc_int2				0.809	
soc_int3				0.844	
purc_int3					0.815
purc_int2					0.871
purc_int1					0.865

confirmatory factor analysis. For this, factor loads and goodness of fit values were examined. Model fit values and obtained results are shown in Table 4.

5.3 Structural Model

Once we have assumed that the construct measures are reliable and valid, the next step is assessing the structural results. The AMOS program was used in the

Table 4: Confirmatory factor analysis.

Value	Good fit	Acceptable fit	Obtained values
CMIN/DF	≤3	≤5	2.124
CFI	≥0.97	≥0.90	0.928
AGFI	≥0.90	≥0.85	0.911
GFI	≥0.90	≥0.85	0.894
RMSEA	≤0.05	≤0.08	0.035

structural equation model analysis. When the values related to the fit indices of the model proposed in this research were examined, the data fit well with the model. This situation is shown in Table 5. The results of the structural model test showed that the standardization path coefficients were statistically significant. The p significance values obtained from the analysis are shown in Table 6. According to these results, creative choice (β = 0.289; p < 0.05), unpopular choice (β = 0.215; p < 0.05), similarity avoidance (β = 0.266; p < 0.05), and social media interaction (β = 0.195; p < 0.05) had a positive effect on purchase intention. Thus, hypotheses H1, H2, H3, and H4 were accepted.

Table 5: Summary of goodness-of-fit indices for measurement model.

Value	Good fit	Acceptable fit	Obtained values
CMIN/DF	≤3	≤5	2.425
CFI	≥0.97	≥0.90	0.914
AGFI	≥0.90	≥0.85	0.877
GFI	≥0.90	≥0.85	0.865
RMSEA	≤0.05	≤0.08	0.039

Table 6: Results of hypotheses testing.

Hypothesis	Path	β	p
H1	Creative choice > purchase intention	0.289	0.03
H2	Unpopular choice > purchase intention	0.215	***
H3	Similarity avoidance > purchase intention	0.266	***
H4	Social media interaction > purchase intention	0.195	0.02

***p < 0.01.

6 Discussion and Conclusion

NFT is a unique blockchain-based digital asset. This can be bought, sold, and registered. The property belongs only to its owner. NFTs are one-of-a-kind and unique. NFT represents a novel and unique phenomenon that uses blockchain technology to document ownership and tradable rights of digital assets (Dowling 2022). It can be a photo, video, audio, and other digital files. These can represent many items, such as art and collectibles (Wang et al. 2021). Demand for NFTs is likely to increase. Marketing managers will need to be prepared to meet the growing consumer demand for NFTs. Marketing NFTs helps businesses improve relationships with their target audiences, drives customer engagement, increases brand awareness, generates revenue, and helps the business thrive. Businesses can educate their customers, improve their message and they can convey their values. The results of the study are compatible with the existing literature. The effect of the need for uniqueness on purchase intention Knight and Kim (2007); is in line with the findings in the studies of Shen et al. (2014); Wu et al. (2012). The effect of social media interaction on purchase intention Aji, Nadhila, and Sanny (2020); Dabbous and Barakat (2020); McClure and Seock are in line with the work of 2020. In this article structural equation model was used as statistical analysis. The results show need for uniqueness is a significant variable on, which has a direct effect on purchase intention. This situation shows that the need for uniqueness in different studies can also be applied to NFT. In the nature of NFT, consumers prefer unique products that are unique to them in their intention to purchase NFT.

6.1 Theoretical Contributions

The need to be unique in how consumers will use or for what purpose NFT comes to the fore. For this reason, uniqueness is an important factor in realizing the purchasing action. This study contributes from a different perspective to the literature on understanding why people want to buy NFTs. The compatibility of the need for uniqueness with NFT will guide the work on this subject. NFTs are in line with the main benefit objectives of marketing, where buyers can reach the seller directly, NFT is easy to access, and fans facilitate digital ownership. That's why NFT has become increasingly talked about on social media platforms. The spread of differentiation among people increases the desire to have NFT. The prediction of what will use NFT in social media profiles and posts in the future supports this study. Since scientific studies in this field are scarce, the study will reflect NFT purchase intention.

6.2 Practical Implications

NFT is an asset that is accessible and quickly purchased by everyone. It can also be transferred efficiently between any person in the world. Businesses can increase brand awareness and loyalty by leveraging NFT technology to improve user experiences. Brands can use NFT technology to provide their customers with personalized gifts, coupons or more. It should also be taken into account that marketers considering NFTs in their marketing campaigns will benefit and gain a competitive advantage if they constantly monitor NFT-related developments and changes in demand. However, they are legal regulations that can provide contractual conditions for the use of NFT for marketing managers and consumers. Businesses that want to exist in the NFT market can promote NFT on their social media accounts. In addition, the fact that companies produce personalized NFTs will attract people's attention. Consumers still lack information about NFT. Therefore, training to be made by companies on NFTs will increase the awareness of NFTs. NFT ownership, on the other hand, is protected by the blockchain, and its license is transparent. It is the right strategy to follow that companies tell this to consumers. It would be suitable for marketing managers to be prepared to meet the growing consumer demand for NFTs. However, legal regulations on this issue for brokerage firms that market NFTs will increase the demand for NFTs. Using NFT to create value for the brand and customers will be a successful marketing strategy.

6.3 Limitations and Future Research

The first limitation of the study is that the sample is limited to Turkey and is not sound representative. The second limitation is that users are asked whether they use NFT or not, especially for confirmation. Despite these limitations, the research is one of the first scientific attempts to address whether NFTs are useful in practice and who can purchase them. Because NFTs have a high potential to create new value for consumers and to become widespread in social media. Academic studies with NFT are expected to increase even more in the future. It can further expand the model by adding different mediator and moderator variables to the research model. However, conducting the research with a theory about marketing and a qualitative study with people who have NFT will make an essential contribution to the literature.

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