# JURNAL ILMIAH MANAJEMEN BISNIS DAN INOVASI UNIVERSITAS SAM RATULANGI (JMBI UNSRAT)

# STUDY OF METAVERSE: INFLUENCE OF DISCORD VIRTUAL COMMUNITY TO PURCHASE INTENTION OF NON-FUNGIBLE TOKEN (NFT)

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ARTICLE INFO

**Keywords:** Digital Marketing; Virtual Community; Metaverse; E-WOM; NFT

**Kata Kunci**: Pemasaran Digital; Komunitas virtual; Metaverse; E-WOM; NFT

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Abstract. A wide range of NFTs as non-interchangeable token of data saved on a blockchain which are being sold and being widely shared on digital platforms. Having a unique characteristic, NFT branding and its promotional activity to let them know by the public has been done in social media, particularly Twitter as a meaning of public perception building and potential buyers collecting effort. But the author found that the role of company initiated virtual community in Discord has a big impact as it gathers targeted group and building connection between the company and the people who has probability to purchase in the future - that is going to be examined in this research using E-WOM as the mediation. By finishing this study, the author digs into the study of metaverse as the metaverse could be the future development of the Internet based on its tenacious, shared virtual worlds in which people interact as 3D avatars. Blockchain technology may represents the very essence of the metaverse to the fact that linked NFT assets that can be used thorough different metaverse

Abstrak. Berbagai macam NFT sebagai token data yang tidak dapat dipertukarkan yang disimpan di blockchain yang dijual dan dibagikan secara luas di platform digital. Memiliki karakteristik yang unik, NFT branding dan aktivitas promosinya untuk diketahui oleh publik telah dilakukan di media sosial, khususnya Twitter sebagai sarana untuk membangun persepsi publik dan upaya pengumpulan pembeli potensial. Tetapi penulis menemukan bahwa peran komunitas virtual yang diprakarsai perusahaan dalam Discord memiliki dampak besar karena mengumpulkan kelompok sasaran dan membangun hubungan antara perusahaan dan orang-orang yang memiliki kemungkinan untuk membeli di masa depan - yang akan diteliti dalam penelitian ini. menggunakan E-WOM sebagai mediasi. Dengan menyelesaikan studi ini, penulis menggali studi tentang metaverse karena metaverse bisa menjadi pengembangan masa depan Internet berdasarkan dunia maya yang ulet dan berbagi di mana orang-orang berinteraksi sebagai avatar 3D. Teknologi Blockchain dapat mewakili inti dari metaverse dengan fakta bahwa aset NFT terkait yang dapat digunakan melalui platform metaverse yang berbeda.

#### INTRODUCTION

Metaverse which has started to get public attention from early 2021 (Jooyoung Kim, 2021), got more popular as Facebook came up with their company declaration to change their group name into Meta (Kelly, 2021). According to Global Games Market Report 2021, those who involves in the metaverse ecological community include those who serves spaces and contents (Roblox, Sandbox, Fortnite, Zepeto, and Decentraland), feature providers (social media, immersion [Oculus], user interface and and economy [Coinbase]), and infrastructure (artificial intelligence, cloud) (Newzoo, 2021). As what has been stated above, the metaverse ecosystem can be categorized based on who creates the content and whether the experience is centralized (Fortnite) or decentralized (Decentraland) (Jooyoung Kim, 2021). Its enthusiasts trusts that later on the metaverse will be functioned for a enormous coverage of things, from socializing to gaming, events, shopping, and work (Ai, 2021; Mystakidis, 2022; Park & Kim, 2022). The metaverse will not becoming a single platform, but a collection of online purposes that will be the foundation of arranging customizable avatars and assets that is dynamically transfer from one virtual place to another (Jooyoung Kim, 2021).

#### LITERATURE REVIEW

#### **NFT and Metaverse**

Non-Fungible Tokens (NFT) are electronics assets with a rare value(Gadekallu et al., 2022; Sharma et al., 2022). Popular NFTs like the CryptoPunks and Bored Ape Yacht Club could be coverted into 3D avatars that owners can place into metaverse dimension (Murray, 2022), for example. These virtual assets can also be sold, personalized and even monetized. In the proposed NFT-powered metaverse, you can have your ownership of metaverse assets things like land, avatar, digital apparel, and other necessity, and shift them between platforms using your crypto wallet (Hayward, 2022). The integration is one of the way for crypto start-ups intruding the tech: it's not merely about being caged into specifically one platform from Facebook, Google, or other giant tech company (Kapoor et al., 2022).

Sharma et al. (2022) argued there are variety of marketplaces to trade different categories of NFTs, such as Rarible, Open Sea, NiftyGateway, Super Rare and Foundation. OpenSea is the biggest and most famous of all such marketplaces, where 300,000 users being its member with \$3.4 billion volume sold and bought in August 2021, but the awareness building and the branding itself mostly done in another platform, usually social media, 70% of it comes from Twitter (Kapoor et al., 2022). Kapoor et al. (2022) also stated that Twitter as a vehicle of branding is the most used

and knows for NFT. It is found that the role of company initiated virtual community in Discord has a big impact as it gathers targeted group and building connection between the company and the people who has probability to purchase in the future.

# **Discord as Virtual Community of NFT Branding**

The NFT marketplace has initial similarities with previous and auctions and old art exhibition (Chohan & Paschen, 2021). They mostly have creators and buyers (Goetzmann et al., 2013). Stakeholders communicate and relate through specified social interactions and connections such as material and visual conduct of buying and bidding, during trading (Heath & Luff, 2007). In the NFT marketplace, there is a trend of building one lively communities (Nadini et al., 2021).

Art exhibitions has been arranged as a place for any artists to gather their fans, followers, and supporters and serving artists with a circle of community that helps them with idea and creative exhibition, development and opportunities to be published (Khaire, 2015). For the audience, exhibitions are surroundings to learn about the specified art in one engaging medium, and to connect with other visitors. Previous research has come up with one conclusion of the positive relationship between the artist and its product engagement and people's physical/psychological well-being (O'Shea & Léime, 2012). Arts also able to serve a new paradigm of connection to strengthen people's experience, and boost their engagement, learning, and the alignment along with its ommunity (Mak et al., 2021). Virtual art exhibition is one effort from the artist to allow visitors and audiences to collaborate each in the community, to get an access to its content, and to communicate and discussing with each other about the product of art (Vosinakis & Xenakis, 2011). There is one similarly specific trend in the NFT marketplace, where artists produces different varieties of and arts, and show off/trade them virtually (Sharma et al., 2022).

There is variety of online ecological system and forums for NFT enthusiasts, and Discord channels is one of the famous one. Discord has been for some time a gathering medium of people that have common interest in NFT to serve NFT creators with a change to share their accomplishments and beliefs and messages in public (Sharma et al., 2022). Discord as virtual community functions as a potential source of NFT future customers, for improving NFT brand reach, and increasing NFT online sales, as well as potential channels for deepen the relationships and bonding between the NFT creator with their customers.

# **Hypotheses Development**

# **Attitude to a Virtual Community (VC)**

Attitude toward the VC is a compilation of judging of customers' overall participation in the VC (Dwivedi et al., 2021; Karjaluoto & Leppäniemi, 2013). A positive attitude toward the store found to be one of the important factor for an online customer to purchase from the store (Kusumawidjaya et al., 2021; Nafarin & Oktavio, 2021). Inside a good VC, the communication between each members would lead them to a positive attitude inside the VC. Commitment to a VC is defined by an excessive participating rate in VC activities, such as helpful acts toward VC's other members and their active role on of the VC (Gupta et al., 2010). Attitude toward a VC is an linked compilation of evaluation of the VC based on the both cognitive and affective beliefs of the member about the interaction in the VC (Jihye Kim et al., 2021). It can conclude that the more positive attitude of members in the VC can strengthen the commitment to engage in the VC.

In the application in a VC, each of the VC member will talk and has a conversation about the products offered by the creators or sellers (Arikan, 2017; Bueno & Anacleto, 2017). Each of them will looking for advice or suggestion from fellow members about their previous purchase experiences from the creator. The E-WOM regarding purchase from the creator is easily found in a well maintained VC if all of the members has a positive attitude and active role in the discussion (Abedi et al., 2020; Arif, 2019).

H1: Attitude toward the VC relates positively to the E-WOM.

# Commitment to a Virtual Community (VC)

The committed member in a VC has a willingness to maintain a relationship with a VC in terms of keeping their interaction with the other member inside the VC or the intention to revisit the VC regularly (Gupta et al., 2010). Many previous research has been done on this relation between commitment to a virtual community. However, Discord as a new media might has different approach in its way of building or strengthen the bonding between member on its VC – as compared to any other media (Vladoiu & Constantinescu, 2020). When members inside VC are committed, they will consider other members' input, which affect the e WOM of the product offered by the creator (Abubakar et al., 2016).

H2: Commitment toward the VC relates positively to E-WOM

# **E-WOM** in Virtual Community

New media has created many opportunities for E-WOM communication in the field of marketing, as more data and information got easier to access online (Abubakar et al., 2016), affecting the way a brand to be perceived. Social influence can increase the likability toward a product or service and adding more trust to the sellers (Liu et al., 2019) – furthermore to igniting the intention to purchase.

# H3: Attitude (X1) and commitment (X2) toward the NFT VC relates positively to purchase intention (Y1) through E-WOM (M)

In this work, we are looking for NFT enthusiasts' motivations for joining the NFT communities in Discord and their attitude, as along the commitment on the community itself. We also explore how that both variable affecting E-WOM and further purchase intention, to understand NFT practices from both individual and community perspectives. Author believes that one can find this research novelty as using Discord as the virtual community to be examined instead of any other socials, as the product value to be transferred by the E-WOM as mediating factors to the NFT purchase intention.

# H4: E-WOM (M) relates positively to NFT Purchase Intention (Y1)

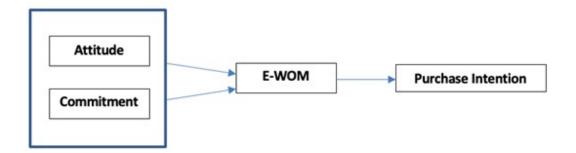


Figure 1. Research Framework

#### **METHOD**

Hypothesis is analysed using the method of Structural Equation Modeling (SEM) with Smart PLS. While the research analysis unit is 140's Indonesia's NFT enthusiasts. The research data is quantitively tested. The objective of the study is to analyse whether there is an effect of attitude and commitment toward virtual community to purchase intention of NFT assets, with E-WOM as mediation. The data used in this research are primary data and secondary data. The questionnaire

was distributed by google form during the period January 2022 - May 2022. Secondary data obtained from the internet and other written literature. The variable questions is tested based on five Likert scales, where the answer to each item of the instrument has a class from strongly agree to strongly disagree (Joshi et al., 2015). The structure of the questions are closed. Researcher is also using a method of structured observation for preliminary study.

#### **RESULT**

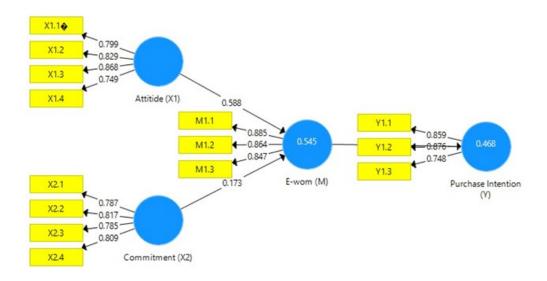
# **Descriptive Analysis**

# **Respondent Characteristics**

Characteristics of the NFT enthusiasts tested in this study are age, country, period of involving in NFT community, and other initial aspect to be considered impacting their involvement in Discord as NFT Virtual Community. From total of 140 respondents, 63% is male and the rest 37% is female. There are variety of countries of origin since this questionnaire are delivered through discord virtual community channel that consists of people all around the world. The most numbers of the respondent have been exploring and involving in NFT for less than year (61,7%), the rest 33,1% has been exploring for 1 to less than 2 years and the others more than 2 years.

#### **Model Result Evaluation**

Relationship models that affect NFT purchase intention are tested using SMART PLS version 2.0. There are 4 latent variables in the model, 4 of them are Attitude (X1), Commitment (X2), E-WOM (M1), and Purchase Intention (Y1)



# Figure 2. PLS Output

The results of the analysis of the outer model have a coefficient value > 0.7. Evaluation of the outer reflective model on variables using the composite reliability criteria ( $\rho$ c), Cronbach's alpha, indicator reliability, and average variance extracted (AVE). All variables on composite reliability are > 0.7. Cronbach's alpha value > 0.7, and average variance extracted (AVE) value > 0.6. each loading factor > 0.7

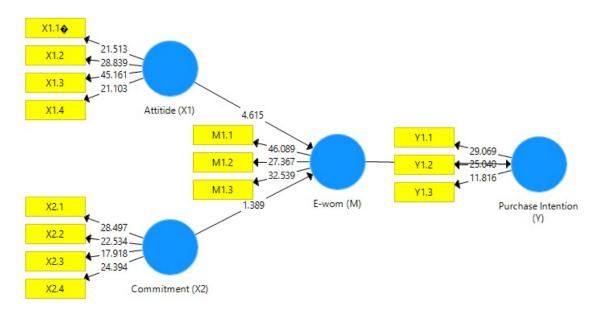


Figure 3. Hypotheses Test Result

**Table 2. Bootstraps Results** 

Hypotheses	T Statistic	T Tabel	Result
Attitude toward the NFT VC (X1) relates	4.615	1.655811	H1:
positively to E- WOM (M) Commitment toward the NFT VC (X2)relates			Accepted
positively to the E-WOM (M)	1.389	1.655811	H2: Rejected
Attitude (X1) and commitment (X2) toward the NFT VC relates positively to purchase intention (Y1) through E-WOM (M)	3.951	1.655811	H3: Accepted
E-WOM (M) relates positively to NFT Purchase Intention (Y1)	14.613	1.655811	H4: Accepted

#### **Discussion**

As we know, commitment is a variable that develops and changes over time, by that fact, it

is interesting to see that it does not have a significant relation E-WOM. As most of the respondents in this virtual community is relatively new member – as NFT itself is to be considered as a new asset in the blockchain, we can expect that with time they will have more intention to purchase to the community as most of them highly committed to the virtual community. The limitation of discord as an anonymous community also be one of the reason that the emerging desires of NFT product purchase is not as high as the purchase on any other project even though the member of the virtual community has developed commitment to the community in particular (Pinto-Gutiérrez et al., 2022; Piyadigama & Poravi, 2022). The character of Discord as virtual community also the trend of NFT's marketing that has a close association to the scamming practices (Sharma et al., 2022) has the possibility to affect the results. Therefore, the results of the research model should be proven across various context and nature of products in order to establish generalizability.

Hence, from this research, we can also see that similar to the previous research done by Gupta et al. (2010) the member's attitude of the Discord virtual community still has a strong impact on the purchase intention through E-WOM, as E-WOM also relates positively to the purchase intention itself, specifically on NFT asset's marketing.

#### **CONCLUSIONS**

From this research, the significant impact between the member's attitude inside one NFT virtual community to its purchase intention has been found. There are more possibilities of NFT unit sold as the members of its virtual community – in this case, Discord - has a friendly character and being helpful one to another. So, it is important for the creator of NFT or the virtual community management to create a user-friendly atmosphere inside their Discord channel to increase the members willingness to purchase the NFT assets. E-WOM as has been defined by the information availability, the active discussion forum, also the recommendation from another member is considered as a good intermediary between attitude to purchase intention as it need to be improved regularly based on the virtual community's dynamic.

We could also see that Discord is best to be considered as the promotion and advertising media but not the place where the purchase decision is taken into places. That is why, the limitation of this new media might not be the most suitable way to the conversion, as its just a medium of lead collection and lead maintenance.

# **Implication**

Seeing the result of this research, it is strongly suggested that the advertising and promotion activity of NFT assets be held in a more trustable virtual community that allows the member's identity to be revealed. As what has been concluded in previous research by Nadini et al. (2021) that the NFT Market today has led to serious consecution and quantify the malicious buying and selling behaviors be done by NFT users which hides under anonymity.

#### Recommendations

Based on the result of these research and the conclusions figured, future researchers should see the rest other of virtual community where NFT is being advertised, such as Twitter Space or Telegram as a comparative study. As it is already concluded in this research that the animosity of the Discord member is one of the reasons that holding the already built commitment to lead to more purchase intention in the future, it is possible for the next research to seek the best virtual community to be used for NFT's promotion and advertising. It is strongly recommended for the other researcher to look at any other factor that might be bigger influence than the secretive conduct of Discord as virtual community to nurture the lead of the NFT purchase itself.

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