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Dissecting the NFT Market: Implications of Creation Methods on Trading Behavior: Open Review

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Reviewers: Reviewer A, Reviewer B

Abstract. The final version of the paper "Market Neutral Liquidity Provision" can be found in Ledger Vol. 9 (2024) 89-107, DOI 10.5195/LEDGER.2024.377. There were two reviewers involved in the review process, neither of whom has requested to waive their anonymity at present, and are thus listed as Reviewers A and B. After initial review by Reviewers A and B, the submission was returned to the authors with feedback for revision (1A). The author resubmitted their work and responded to reviewer comments (1B). As the changes requested were relatively straightforward, the editor verified that they had been made, and ended the peer review process. Author responses have been bulleted for reader clarity.

1A. Review

Reviewer A

Does this paper represent a novel contribution to cryptocurrency or blockchain scholarship?

Yes, incremental contribution(s)

Please briefly explain why you think the paper makes or does not make a novel contribution.

The paper could be enhanced by providing a more detailed description of data preprocessing and model validation techniques, which would bolster the reliability of the findings. Additionally, a more thorough comparison with existing literature could position the paper more explicitly within the ongoing academic discourse on NFTs.

Is the research framed within its scholarly context and does the paper cite appropriate prior works?

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Important references are missing.

Please assess the article's level of academic rigor.

Good (not excellent but a long way from poor)

Please assess the article's quality of presentation.

Good (not excellent but a long way from poor)

How does the quality of this paper compare to other papers in this field?

This is a good or average paper.

Please provide your free-form review for the author in this section.

Summary:

This paper provides a robust and insightful analysis of the NFT market dynamics with a focus on the implications of NFT creation methods. Utilizing a comprehensive dataset from the OpenSea platform, the authors apply advanced machine learning techniques to differentiate between hand-drawn and AI-generated NFTs, examining their respective impacts on trading behaviors such as pricing and sales frequency. The strengths of the paper lie in its substantial dataset, rigorous analytical methodology, and the relevance of its research questions to current market interests. The findings that AI-generated NFTs generally command higher prices, yet hand-drawn NFTs are sold more frequently, are particularly noteworthy as they add depth to our understanding of digital asset valuation and consumer preferences. However,the paper could be enhanced by providing a more detailed description of data preprocessing and model validation techniques, which would bolster the reliability of the findings. Additionally, a more thorough comparison with existing literature could position the paper more explicitly within the ongoing academic discourse on NFTs.

Strengths of the paper：

1. The study tackles pertinent questions about the perceived value of AI-generated versus hand-drawn NFTs and their market impact—topics of significant interest given the current fascination with digital assets.

2. Leveraging over 1.4 million transactions from OpenSea enriches the study's robustness and enhances the generalizability of its findings.

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3. The paper is well-organized, methodically progressing from the introduction through to the methodology, results, and conclusion, which aids in reader comprehension and engagement.

Points for improvement:

1. The paper lacks detail in how features were deduced from NFT descriptions, which are not always explicitly labeled as hand-drawn or AI-generated. While the paper acknowledges this limitation and the potential for misclassification, it does not propose a satisfactory solution to mitigate this issue.

2. The choice of regression and classification techniques requires further justification. The paper does not discuss why these methods are specifically suited for this analysis over other viable techniques like time series analysis, which could also elucidate trends in pricing and sales volumes. A comparative discussion with other studies employing different methodologies could highlight the necessity and efficacy of the chosen methods.

3. There are minor linguistic errors that could be polished to enhance the clarity and professionalism of the paper. For example, "how they impact other key features" should be "how it impacts other key features," and "which quite high" should be corrected to "which is quite high."

Reviewer B

Does this paper represent a novel contribution to cryptocurrency or blockchain scholarship?

Yes, incremental contribution(s)

Please briefly explain why you think the paper makes or does not make a novel contribution.

This paper focuses on the NFT trading, exp. relationship between NFT creation methods and NFT trading behaviors.

Is the research framed within its scholarly context and does the paper cite appropriate prior works?

Yes

Please assess the article's level of academic rigor.

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Good (not excellent but a long way from poor)

Please assess the article's quality of presentation.

Good (not excellent but a long way from poor)

How does the quality of this paper compare to other papers in this field?

This is a good or average paper.

Please provide your free-form review for the author in this section.

This paper analyzes the relationship between the creation method and trading behavior in the NFT market. The data source is from the Opensea API, encompassing a dataset of 1,478,556 NFT trading transactions. The methodology and data collection are well-presented, utilizing generator tags to identify whether NFTs are hand-drawn or AI-generated, based on keywords in the NFT descriptions. The study explores the relationship between creation method and trading behavior using the existing data collection. Furthermore, random forest regression and classifier models are employed. The conclusion summarizes the findings and limitations of the paper.

Strengths of the Paper:

1. Literature Review: The literature review is well-presented, providing a comprehensive background on the subject.

2. Methodology and Data Collection: The methodology and data collection processes are clearly explained, ensuring transparency and reproducibility.

3. Detailed Results: The results are detailed and provide valuable insights into the trading behavior of NFTs.

4. Analysis of Regression Models: The analysis of different regression models is thorough, with full comparisons using various measurement standards.

5. Clear Limitations: The limitations of the study are clearly outlined and well-summarized, providing a balanced view of the research.

Drawbacks of the Paper:

1. Aim of Regression Models: The purpose of employing regression models is not clearly articulated. The paper does not establish a clear connection between the use of these models and the main topic.

2. Lack of Future Research Directions: The conclusion does not offer suggestions for

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future research. Including potential directions or topics for further investigation would enhance the paper's inspirational value for other researchers in this field.

1B. Author Response

Reviewer A

1. The paper lacks detail in how features were deduced from NFT descriptions, which are not always explicitly labeled as hand-drawn or AI-generated. While the paper acknowledges this limitation and the potential for misclassification, it does not propose a satisfactory solution to mitigate this issue.

- Thank you for your feedback. We have addressed this by discussing potential solutions to distinguish between hand-drawn and AI-generated in greater depth in the concluding section of the paper.

2. The choice of regression and classification techniques requires further justification. The paper does not discuss why these methods are specifically suited for this analysis over other viable techniques like time series analysis, which could also elucidate trends in pricing and sales volumes. A comparative discussion with other studies employing different methodologies could highlight the necessity and efficacy of the chosen methods.

- We have expanded our justification for the choice in the Methodology section. Specifically, comparing our choice with alternative studies. Additionally, we have incorporated recent related works to further substantiate our approach.

3. There are minor linguistic errors that could be polished to enhance the clarity and professionalism of the paper. For example, "how they impact other key features" should be "how it impacts other key features," and "which quite high" should be corrected to "which is quite high."

- The manuscript has been thoroughly reviewed, and all such issues have been addressed and corrected.

Reviewer B

1. Aim of Regression Models: The purpose of employing regression models is not clearly articulated. The paper does not establish a clear connection between the use of these models and the main topic.

- Thank you for your input. We have clarified the purpose of using regression models in the Methodology section, highlighting its advantages over other methods.

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2. Lack of Future Research Directions: The conclusion does not offer suggestions for future research. Including potential directions or topics for further investigation would enhance the paper's inspirational value for other researchers in this field.

- Thank you for pointing this out. We have now added a section in the conclusion that outlines potential directions for future research.

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