View Review

Paper ID
5306

Paper Title
Enhancing financial decision-making in the oil and gas industry using a deep learning approach

Track Name
Main Track

REVIEW QUESTIONS

1. Reviewer's confidence
Very good

2. Relevance to IJCNN
Good

3. Technical quality
Fair

4. Novelty
Fair

5. Quality of presentation
Fair

6. Award quality?
No

7. Suggested type of presentation
Indifferent

9. Overall recommendation
Weak Reject

9. Comments to Authors
The integration of deep learning with traditional financial risk models is a notable approach that significantly enhances the forecasting accuracy of commodity prices, especially in a volatile market like oil and gas. The paper presents a comprehensive methodology, combining multiple deep learning architectures with a robust evaluation framework for financial risk management.
The methodology is well-structured, and the experiments provide solid evidence of the effectiveness of deep learning in predicting steel prices and other commodities in the context of the oil and gas industry. The results demonstrate the superiority of deep learning models like TiDE, N-HiTS, and Transformer in handling non-linearities and volatile market patterns, compared to traditional models.
The paper's contribution to improving financial decision-making through predictive analytics is

significant, and the clarity of presentation enhances its value to both academics and practitioners in the field of industrial finance and AI.

10. Was Authors' anonymity ensured? (If No, please explain in confidential comments to TPC)

Yes

12. All reviewers must accept and agree to follow IEEE Policies. By submitting your review, you acknowledge that you have read and agree to IEEE's Privacy Policy (https://www.ieee.org/security-privacy.html).

Agreement accepted