

From Man + Machine to Man + Machine: The art and AI of stock analyses

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1. What are the research questions?

- Would Man + Machine perform better than Man + Machine in stock analyses? If yes, why?

2. Why are the research questions interesting?

- While AI aims to augment human intelligence, existing literature largely focuses on 'Man vs Machine'.
- It's proved that AI can help more humans become better chess players
 - It stands to reason that it can help more of us become better at many skilled jobs.
 - Stock analysts are key market intermediaries, requiring both institutional knowledge and data analytics.

3. What is the paper's contribution?

- Literature on the competition and threat to human workers posed by new technology including robots and AI.
 - Prior: highlight how AI innovations disrupt many high-skill jobs
 - Ext: focuses on humans' relative advantage over machines and, more importantly, the potential synergies between humans and machines.
- Literature on the impact of big data and AI in the financial industry
 - Prior: Jansen et al. (2023); Cao et al. (2023b); Pagliaro et al. (2023)...
 - Ext: Explore the internal mechanism of the AI process, and aim to identify their relative advantages to, as well as synergies with, humans
- Literature of building and assessing the performance of ML models in financial applications
 - Prior: predicting asset prices (Gu et al., 2020, Brogaard and Zareei, 2022)...
 - Ext: Explore the complementary value humans can offer in the age of AI

4. What hypotheses are tested in the paper? list them explicitly

- H1: Man + Machine perform better than Man + Machine in stock analyses
- H2: AI analyst is stronger when info is more transparent and voluminous, but human analysts remain competitive when critical info requires institutional knowledge.

(a) Do these hypotheses follow from and answer the research questions?

Yes

(b) Do these hypotheses follow from theory or are they otherwise adequately developed?

- Smaller and more illiquid firms are subject to higher information asymmetry and require better institutional knowledge or industry experience to decipher.

5. Sample: comment on the appropriateness of the sample selection procedures

- Using a large set of as the inputs of AI is appropriate.

6. Dependent and independent variables: the appropriateness of variable definition and measurement

- Concise and reasonable.

7. Regression/prediction model specification: the appropriateness of the regression/prediction model specification

- History analysts' forecasts are public info, which should be contained in the ML inputs.

8. What difficulties arise in drawing inferences from the empirical work

- The empirical work is rigorous

9. Describe at least one publishable and feasible extension of this research

- Other skilled jobs: Credit Analysts...