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

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1. **What are the research questions?**
   - Whether the synergy between humans and machines can do better when analyzing stocks?
2. **Why are the research questions interesting?**
   - The existing literature has mostly been focusing on characterizing the type of jobs that are vulnerable to disruption by AI's evolution, as well as those it could create.
   - It's necessary to figure out whether the synergy between humans and machines can get better results while analyzing stocks than just use machines.
3. **What is the paper's contribution?**
   1. Literature on the competition and threat to human workers posed by new technology.
      - **Past studies:** when lower intermediate-skill jobs are replaced by machines, humans tend to move to high-skill jobs.
      - **Expand:** focuses on humans' relative advantage over machines and the potential synergies between humans and machines.
   2. Papers study the impact of big data and AI in the financial industry.
      - **Past studies:** ignore the internal mechanism of the AI process.
      - **Expand:** explore the internal mechanism of the AI process; identify their relative advantages to, as well as synergies with, humans.
   3. Literature of building and assessing the performance of machine learning models in financial applications.
      - **Past studies:** they predict asset prices, forecast earnings, and so on.
      - **Expand:** explore the complementary value humans can offer in the age of AI.
4. **What hypotheses are tested in the paper?**
   - H1: MDM exhibits better performance than the raw forecasts.
   - H2: AI forecasts outperform analyst consensus.
   - H3: Man + Machine outperforms Machine-alone.

   a) Do these hypotheses follow from and answer the research questions?
      - Yes, they investigate the incremental contributions of the synergy between humans and machines.

   b) Do these hypotheses follow from theory?Explain logic of the hypotheses.
      - Theory: machine can treat larger data and skilled analyst can help avoid extreme errors made by AI.
      - Logic: machines outperforms humans since they can treat information more efficiently(H1,H2), but human analyst can also provide useful message, as a result, man+machine outperforms machine-alone(H3).
5. **Sample: comment on the appropriateness of the sample selection procedures.**
   - The sample selection is appropriate while covering stocks and their features fully.

6. **Comment on the appropriateness of variable definition and measurement.**
    - This paper studies the performance of human and machine, just need stock features and analysts' predictions. These variables can be download from dataset directly.
7. **Comment on the appropriateness of the regress/predict model specification.**
    - The model specification is appropriate as it incorporates a comprehensive set of predictors.
8. **What difficulties arise in drawing inferences from the empirical work?**
    - If some analysts use AI-technology while analyzing stocks, the performance of analysts is not only driven by human and the inferences may be influenced.
9. **Describe at least one publishable and feasible extension of this research.**
    - Can furtherly study the case of bond/fund markets.