Summary of Machine-learning the skill of mutual fund managers

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1) What are the research questions ?
- Could ML select outperformed funds? Which characteristics?

2) Why are the research questions interesting?
- The asset management industry is enormous and growing rapidly, increasing reliance from investors.
- Despite active stock trading, funds still show varied investment outcomes.
- Useing modern techniques to distinguish funds with different performance.

3) What is the paper's contribution?
- Literature on whether fund outperform through stock picking and timing.
    - This study: fund flow predicts performance positively.
    - Prior: Relate to fees, direct flows...
- Literature on fund return predictability.
    - This study:the predictive power of fund momentum and fund flows.
    - Prior: Carhart alphas, 4- factor monthly alphas.
- LIterature on Machine Learning (ML) literature in finance.
    - This study: fund-specific characteristics and the interaction with economy.
    - Prior: analyzing the cross-section of stock returns using return predictors.

4) What hypotheses are tested in the paper?
- Hypotheses
    - Abnormal return predictability
    - Fund momentum and flow are key predictors of fund performance.
- The logic of hypotheses
    - Investors detect skill and allocate their investment towards skilled managers.

5)Sample
- U.S. equity mutual funds between 1980 and 2019.

6) Dependent and independent variables
- Abnormal fund return: the locally-estimated four-factor alpha of the mutual fund.

7) Regression/prediction model specification
- Feedforward neural network.

8) Describe at least one publishable and feasible extension of this research.
- Focus on other type funds such as hedge/ESG funds...