

Summary of *Silent Suffering:*
Using Machine Learning to Measure CEO Depression
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1. What are the research questions?

- CEO depression 的影响因素有哪些? 是否会影响公司绩效表现?

2. Why are the research questions interesting?

- depression 影响深远, 在 CEO 中较为普遍 (24.8%), Patten et al.(2006)
- pivotal role as decision-makers, CEOs' emotional states can significantly impact their careers, firms, and the broader economy

3. What is the paper' s contribution?

- literature showing how CEO characteristics and personality traits,
 - **Prior:** military background, MBA degree, overconfidence, narcissism,
 - **Extend:** depression, a dynamic psychological state
- quantify the association between CEO depression and career outcomes.
 - **prior:** nonlinear effect of CEO optimism on turnover
 - **Extend:** personality trait v.s. mental health condition
- literature on effect of general mood changes on agents' activity and decisions
 - **prior** weather or hospital admissions as proxies for low mood
- adds to the literature on the impact of vocal cues in financial markets
 - **prior** focuses on how voices are perceived by investors
- extends the literature on machine learning techniques in accounting and finance
 - **prior**, such as predicting lending decisions

4. What hypotheses are tested in the paper?

- factors related to CEO depression: drawing from psychology research: (i) CEO performance, (ii) firm risk, (iii) CEO linguistic patterns during conference calls, (iv) CEO job demands, and (v) personal characteristics and seasonal effects
- depression is associated with CEOs' career outcomes.
- relationship between CEO depression and firm performance,

5. Comment on the appropriateness of the sample, variable, model

- train: DAIC-model: SVR model trained on Google YAMNet-CEO conference call, 普通人与 CEO 是否可以迁移?

6. What difficulties arise in drawing inferences from the empirical work?

- Earnings Surprise, 因为这是电话会议, ceo 的情绪肯定和盈利相关, 股价波动性相关; 女性有没有单独训练?

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

- Is AI, like ChatGPT, more beneficial for institutional or retail investors? Does it promote equality or widen the gap? Does it reduce institutional investors' information and analysis advantage, or do they still gain more from it?

8. 三篇文章的联系

- 机器学习与非传统数据：三篇文章均运用了机器学习方法，利用非传统数据源（数字足迹、视频微表情、声音特征）来提升金融风险预测或管理的准确度。
- 行为金融与心理因素：Chang 等 (2024) 和 Cheng Golshan (2025) 均强调了行为和情绪特征在预测金融风险中的重要性，凸显了心理学与金融学的交叉研究价值。