Summary of *A good sketch is better than a long speech: evaluate delinquency risk through real-time video analysis*

Xiangyu Chang et al.

1. **What are the research questions?**
   - Whether we could assess delinquency risk through facial expressions in real-time video?

2. **Why are the research questions interesting?**
   - Existing methods for assessing creditworthiness can't fully reflect current credit status.
   - This study proposes using real-time video analysis to evaluate delinquency risk, offering a more dynamic and reliable indicator of creditworthiness.

3. **What is the paper's contribution?**
   1. We add to the literature on consumer credit markets.
      - **Past:** Use credit bureau scores and digital footprint data to assess applicants.
      - **Expand:** Propose an assessment strategy on applicants' micro-facial expressions.
   2. We contributes to the literature on video analysis and facial information.
      - **Past:** Facial cues identified of borrowers, managers , analysts and investors can play an information role in capital markets.
      - **Expand:** Our article sheds some light on the application of video analysis.
   3. We complement the literature on the use of alternative data.

4. **What hypotheses are tested in the paper?**
   - H: The extent of borrowers' happiness(fear) facial expressions during the application process is negatively(positively) associated with future loan delinquency likelihood.
   a) **Do these hypotheses follow from and answer the research questions?** Yes.
   b) **Do these hypotheses follow from theory?Explain logic of the hypotheses.**
      - theory: hypothesis is based on the psychology and economics literature.

5. **Sample: comment on the appropriateness of the sample selection procedures.**
   - The researchers used a sample of 10,521 loan application videos which is suitable.

6. **Comment on the appropriateness of variable definition and measurement.**
   - The study defines two facial expression metrics, Happiness and Fear, which is proper.

7. **Comment on the appropriateness of the regress/predict model specification.**
   - The study uses a logistic regression model which is better then OLS in this case.

8. **What difficulties arise in drawing inferences from the empirical work?**
   - This paper only focused on Chinese sample which may be limited.

9. **Describe at least one publishable and feasible extension of this research.**
   - Study the relationship between facial expression and conventional scores.

10. **Describe the relationship between papers.**
    - They all use ML and alternative data(voice, video, footprints) to study financial issues.