

Summary of From Transcripts to Insights:  
Uncovering Corporate Risks Using Generative AI

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Apr 09 2024

**1. What are the research questions?**

Can AI-powered LLMs effectively analyze and extract information about diverse risk categories from corporate disclosures?

**2. Why are the research questions interesting?**

The research question address critical aspects of leveraging AI technologies for enhanced risk assessment, offering new perspectives on the capabilities and potential applications of AI in financial analysis and decision-making processes.

Firstly, the effectiveness of LLMs in analyzing diverse risk categories from corporate disclosures presents a novel approach to extracting valuable insights for investors and stakeholders. Secondly, comparing LLM-based risk measures with traditional methods offers insights into the potential benefits of advanced AI technologies in improving risk management strategies. Lastly, exploring the value of general AI in comprehending complex topics like corporate risks opens new possibilities for leveraging AI-driven tools beyond conventional text analysis boundaries.

**3. What is the paper's contribution?**

a. Existing literature show AI LLM could assist investors in analyzing complex, unstructured information, but this paper shows its economic usefulness in risk assessment.

b. This paper extends the literatures by showing AI LLM measures are more informative than bigram-based measures.

c. The study shows AI LLM can leverage their general knowledge to derive insights about corporate risks.

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

H1: AI LLM measures exhibit a positive association with stock market volatility, indicating their effectiveness in predicting financial market outcomes.

H2: AI LLM risk proxies are more informative than traditional bigram-based proxies in explaining stock price volatility for political and climate-related risks.

H3: Risk assessments generated by LLMs outperform risk summaries in predicting stock market volatility for political and climate-related risks, highlighting the value of AI-driven insights.

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

Yes, the hypotheses directly stem from and address the research questions posed in the paper.

**b) Do these hypotheses follow from theory or are they otherwise adequately developed? Please explain the logic of the hypotheses.**

H1 is the major hypothesis, and the rest hypotheses are more detailed and supporting tests for the H1.

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

They only selected earnings calls from January 2018 to March 2023. But the reasons are not adequate. Why not longer?

**6) Dependent and independent variables: comment on the appropriateness of variable**

**definition and measurement.**

Dependent variable: volatility

Independent variables: political risk exposure, climate change risk exposure and AI-related risk exposure measures

The reliability and consistency of GPT-based summaries and assessments could impact the validity of the study's findings.

**7) Regression/prediction model specification: comment on the appropriateness of the regression/prediction model specification.**

Panel data regression and time series regression are employed.

For some time periods like 2021 to 2023, we can observe some linear correlation patterns between political risk exposure, climate change risk exposure and AI-related risk exposure measures, multicollinearity might exist during these periods.

**8) What difficulties arise in drawing inferences from the empirical work?**

Corporate risks are dynamic and influenced by various factors. LLMs may struggle to capture rapidly evolving contexts or emerging risks that are not well-represented in their training data.

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

Maybe we can use ChatGPT to extract managerial expectations of corporate policies from disclosures, , such as dividends and employment.