Ph.D. Dissertation Defense

Candidate:	Yue Leng
Degree:	Doctor of Philosophy
School/Department.:	School of Business / Business Administration
Date:	Monday, April 29, 2024
Time:	1:30 – 3:00 pm
Location:	https://stevens.zoom.us/j/96789448606
Title:	Three Essays on Corporate Strategies: Role of Communication Technology, CEO Biases, and Sentiments
Chairperson:	Dr. Suman Banerjee, Finance, School of Business
Committee Members:	Dr. Anand Goel, Finance, School of Business
	Dr. Ye (Emma) Wang, Finance, School of Business
	Dr. Feng Mai, Information Systems, School of Business

Abstract

The three essays in my dissertation focus on corporate strategies: the impact of communication technology on corporate diversification, the effects of CEO overconfidence on equity issuance, and the role of management and media sentiments in mergers and acquisitions.

The first essay, *"Analyzing the Corporate Diversification Strategy in the Era of Communication Revolution"*, focuses on the impact that advancements in communication technology have on the corporate structure. It reveals a trend among 10,640 companies (1998-2019) towards reduced vertical integration and diversification as communication technology improves, allowing companies to focus more on core competencies and outsource non-core functions. The research also explores how these technological advancements impact corporate strategies related to R&D, intangible assets, and the roles of young CEOs, finding that technology advancement softens the influence of these three factors on a firm's structure. Upon conducting a textual analysis of the MDA sections within firms' 10K filings, we also observe that as communication technology improves, companies show less explicit interest in technology and outsourcing.

Second essay, *"Overconfident CEOs, Perceived Undervaluation of Stocks and Issuance of New Equities"*, uncovers a notable trend among overconfident CEOs, who demonstrate a distinct preference for issuing new equities over their non-overconfident counterparts. This equity issuance primarily supports ongoing investments and acquisitions, rather than serving to reduce debt or bolster cash holding. Flow of new funds leads to a significant uptick in CAPEX, PP&E, R&D, and M&A activities post-equity issuance in overconfident-led firms. We note a decline in new equity issuance by overconfident CEOs after SOX implementation, consistent with prior research showing reduced investment activity in such firms post-SOX. Our results reveal little evidence of market timing in issuance decisions. The analysis demonstrates that this heightened activity in equity issuance and investments positively influences long-term stock performance.

Third essay, *"Differential Sentiments and M&A Performance"*, examines the influence of management and media sentiments on M&A actions using sentiment analysis tools like the Loughran McDonald Dictionary, Financial BERT, and ChatGPT. It finds negative management sentiments linked to higher M&A engagement, while media sentiments impact target and acquirer status, with positive news often leading to post-M&A losses. The study highlights that positive sentiment shifts pre-M&A suggest acquisition likelihood, but negative shifts post-M&A predict long-term underperformance. Using XGBoost, the analysis demonstrates the greater predictive power of sentiment shifts over static levels, especially sentence-level sentiment and ChatGPT's analysis, underscoring the significant forecasting value of sentiment in M&A contexts.