DISSERTATION PROPOSAL

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"Collaborative Pathways: Essays on Strategic Collaboration and Entrepreneurship Success"

Tuesday, December 3, 2024 1:30pm Tepper 4243

How does strategic collaboration shape decision-making, innovation, and outcomes in entrepreneurial ecosystems?" This dissertation examines three representations of network pathways and their effects on economic outcomes. Specifically, Chapter One analyzes VC syndication network configurations and their impact on venture exits, Chapter Two investigates the role of peer influence on venture valuation through VC decision-making, and Chapter Three explores collaborative initiatives in the drug commercialization.

Chapter One: Complementary Capitalists: Venture Capital Syndication in China

Venture capitalists (VCs) commonly co-invest in startup firms as syndication groups, which not only helps to offset their financial risk but also creates network opportunities among VCs to share information, knowledge, and resources. For these VCs, their network positions within the co-investment network pose a trade-off between the benefits of cohesion versus brokerage (Aven and Hillmann, 2018; Ter Wal et al., 2016). Yet, syndication groups permit individual VCs to counteract this trade-off by partnering with their structural complement network positions. We find that the structural complementarity of VCs within these syndication groups influences startup exits, including initial public offerings (IPO) and acquisitions. Using panel data on venture capital investors and their respective startups from 2000 to 2021 in China, our analysis reveals that increasing variation in syndication members' brokerage scores increases their startups' likelihood of a successful exit in an IPO or acquisition. Our results remain robust to estimation with an instrumental variable to address the potential endogeneity of the composition of VCs within syndication groups. Moreover, our results also indicate individual VCs are more likely to replicate structural role complementarity after a successful exit.

Chapter Two: The Problem with Fear of Missing Out: A Probability Inference Perspective at the Peer Influence within VC Decision Making Process

Venture Capitalists operate under a veil of complexity and uncertainty, especially within the domain of early-stage ventures (Ozmel et al., 2017; Reuer & Devarakonda, 2017). Amidst the challenge lies in the identification and nurturing of potential unicorns, VCs look for social cues from referent groups to guide through their course of actions such as decision-making on internationalization, venture exits, and merge and acquisition (Gaba & Terlaak, 2013; Gompers et al., 2020; Ozmel et al., 2017; Vedula & Matusik, 2017). In this paper, I employ exact inference from Bayesian networks to develop a metric that quantifies the additional impact of peer knowledge on the likelihood of a focal (VC) investing in a startup. Utilizing panel data from Crunchbase and Venture Source, comprising 24,220 VC-startup observations, the findings suggest that peer influence emerges as a double-edged sword within these strategic gambits. Specifically, when peer influence induces a fear of missing out, VCs may forego thorough due diligence, leading to impulsive investment decisions which negatively correlates with focal venture valuation.

Chapter Three: From Shelves to Solutions: Drug Repurposing as a Biotech Strategy for Innovation

New entrants often face significant challenges when competing in industries dominated by large incumbents. In the pharmaceutical sector, biotech firms have emerged as disruptors by focusing on drug repurposing—a strategy that identifies new therapeutic uses for existing compounds—while incumbents prioritize de novo drug development targeting blockbuster revenues. Drawing on disruptive innovation theory, this research explores how new entrants leverage drug repurposing as a dual strategy of business model and process innovation to gain a competitive edge: a business model that prioritizes cost-efficient drug development for niche and rare disease, and a process innovation that systematizes repurposing through in-silico methods. Using a unique drug commercialization dataset that triangulates clinical trials, drug characteristics and venture capital investment, I test the hypothesis on how new entrants' commercialization in drug repurposing relative to incumbents, emphasizing factors such as collaboration, cost-efficiency, and computational methods.

Proposed Committee: Brandy Aven (chair), Oliver Hahl

Proposal Documents: https://drive.google.com/drive/u/0/folders/1CHVVa4c4pXu8I3u_QUKPSrim1prSEv7x