

NBER Post-Doctoral Fellowship Application

Entrepreneurship

Sandy Yu
syu@stern.nyu.edu

New York University
Stern School of Business

Sandy Yu

Department of Economics
NYU Stern School of Business
44 West 4th Street, 7-177
New York, NY 10012

syu@stern.nyu.edu
(917) 727-8363

EDUCATION

- 2015 (Expected) **New York University Stern School of Business**, New York, NY
Ph.D. in Economics
Committee: Luís Cabral (co-chair), Adam Brandenburger (co-chair), John Asker, Robert Seamans
- 2007 **Stanford University**, Stanford, CA
M.S. in Electrical Engineering
- 2006 **Stanford University**, Stanford, CA
B.S. in Electrical Engineering
- 2005 **Stanford-Kyoto Center for Technology and Innovation**, Kyoto, Japan

RESEARCH INTERESTS

Strategy, applied microeconomics, technology, innovation, entrepreneurship.

RESEARCH IN PROGRESS

“The Impact of Accelerators on High-Technology Ventures”

(Job market paper)

Abstract: Accelerators aim to help nascent companies increase the likelihood of funding and successful outcomes by providing capital, enabling connections to industry experts, and increasing exposure to investors. However, it remains unclear whether and how accelerators impact the performance of early stage ventures. Using a novel dataset of accelerator companies and non-accelerator companies, I establish stylized facts and propose a theoretical model to disentangle the mechanisms through which accelerators impact funding, acquisitions, and closures. I find that through both selection and treatment effects, accelerator companies raise less money, close down earlier and more often, conditional on closing raise less money, and are more efficient investments compared to non-accelerator companies. Additional analysis using rejected and accepted applicants further supports these findings. These results suggest that accelerators help resolve uncertainty around company quality sooner such that founders can make funding and exit decisions accordingly.

“Comparison of Accelerator Mechanisms and Performance”

“Determinants of Sources of Entrepreneurial Finance”

“Spatial Investment Patterns and Performance in the VC Industry”(with Christopher Rider and Robert Seamans)

AWARDS, GRANTS, AND FELLOWSHIPS

- 2014 **Kauffman Dissertation Fellowship**, Ewing Marion Kauffman Foundation
- 2014 **Best Student Paper Award**, Roundtable for Engineering Entrepreneurship Research (REER)
- 2014 **Teaching Commendation** for exceptionally high ratings, New York University
- 2014 **Joseph Taggart Fellowship**, New York University

2013 **Doctoral Office Research Grant**, New York University
2010 - 2013 **Doctoral Fellowship**, New York University
2006 **Mayfield Fellow**, Stanford Technology Ventures Program, Stanford University
2006 **Dean's Office Award for Student Affairs/Engineering Diversity**, Stanford University
2005 **Lifetime Member**, Cap and Gown Women's Honor Society, Stanford University

CONFERENCE PRESENTATIONS

“The Impact of Accelerators on High-Technology Ventures”

2014 **Roundtable for Engineering Entrepreneurship Research (REER)**, Atlanta, GA
Social Enterprise @ Goizueta Research Colloquium, Atlanta, GA
Consortium for Cooperation and Competition (CCC), Boston, MA
NYU-Columbia Doctoral Conference, New York, NY

“Spatial Investment Patterns and Performance in the VC Industry”

2014 **Symposium on “Entrepreneurial Finance, Selection, and Performance,”** Academy of Management, Philadelphia, PA (session organizer)

INVITED WORKSHOPS AND CONSORTIA

2014 **BPS Division Dissertation Consortium**, Academy of Management, Philadelphia, PA
Atlanta Competitive Advantage Conference Research Development Workshop, Atlanta, GA
2013 **TIM Division Doctoral Consortium**, Academy of Management, Orlando, FL
West Coast Research Symposium Doctoral Consortium, Seattle, WA
2012 **NBER Entrepreneurship Research Boot Camp**, Cambridge, MA

TEACHING EXPERIENCE

2014 **Microeconomics** (Undergraduate), Recitation, NYU Stern (Teaching ratings: 6.6/7.0)
2012 **Firms and Markets** (MBA), Teaching Assistant for Prof. John Asker, NYU Stern

INDUSTRY EXPERIENCE

2007 - 2010 **Program Manager**, Microsoft Office PowerPoint, Microsoft, Mountain View, CA
2006 - 2007 **Associate**, Ooma, Inc., Palo Alto, CA (early employee at venture capital-backed start-up)
2005 **Research Intern**, Toshiba Corporate Research & Development Center, Kanagawa, Japan
2004 **Research Assistant**, Science, Telecommunications, & Radioscience Lab, Stanford, CA

SERVICE

2014 **Reviewer**, U.S. Small Business Administration, Office of Advocacy, Washington, DC
2013 **Student Moderator**, NYU-Columbia Doctoral Conference, New York, NY

PROFESSIONAL MEMBERSHIPS

Academy of Management
American Economic Association

ADDITIONAL INFORMATION

Languages: English (native), Chinese (bilingual proficiency), Japanese (elementary proficiency)
Computer skills: C++, MATLAB, Stata, Microsoft Office

PERSONAL

Citizenship: USA

REFERENCES

Luis Cabral (*Co-chair*)

William R. Berkley Term Professor of Economics and Business
Leonard N. Stern School of Business, New York University
Suite 7-74, 44 West Fourth Street, New York, NY 10012
(212) 998-0858
lcabral@stern.nyu.edu

Adam Brandenburger (*Co-chair*)

J.P. Valles Professor of Business Economics and Strategy
Member, New York University Institute for the Interdisciplinary Study of Decision Making
Associated Faculty Member, New York University Center for Data Science
Leonard N. Stern School of Business, New York University
Suite 7-70, 44 West Fourth Street, New York, NY 10012
(212) 998-0430
adam.brandenburger@stern.nyu.edu

John Asker

Professor of Economics
Leonard N. Stern School of Business, New York University
Suite 7-79, 44 West Fourth Street, New York, NY 10012
(212) 998-0062
jasker@stern.nyu.edu

Robert Seamans

Assistant Professor of Management and Organizations
Leonard N. Stern School of Business, New York University
Suite 7-58, 44 West Fourth Street, New York, NY 10012
(212) 998-0417
rseamans@stern.nyu.edu

Research Proposal - “Determinants of Sources of Entrepreneurial Finance”

Innovation is one of the key drivers of productivity and economic growth, and entrepreneurs innovate through the formation and development of new ventures. Entrepreneurial finance plays an important role in fueling innovations, yet we are just starting to understand sources of finance outside of venture capital. In recent years, the barriers to entry for entrepreneurs have been lowered by the decreasing cost and increasing accessibility of software and information technologies. Consequently, the number of new ventures has risen and competition for venture capital funding has increased. Entrepreneurs need to do more to distinguish themselves, and participating in accelerators has become a popular way to do so.

Accelerators are a hybrid between a venture capital firm, start-up school, and incubator, and they aim to help nascent companies increase the likelihood of follow-on funding and successful outcomes. However, it remains unclear how accelerators impact the performance of early stage ventures. From a policy perspective, city governments are investing in accelerators as a vehicle to attract and foster entrepreneurship, yet we know very little about the effectiveness of such investments. In my job market paper titled, “The Impact of Accelerators on High-Technology Ventures,” I use a hand-collected dataset of matched accelerator companies and non-accelerator companies from 13 accelerators to analyze how accelerator participation affects fundraising, acquisitions, and closures. I also propose a theoretical model to identify the mechanisms at play: a selection effect where the best founders do not go to accelerators; and a treatment effect where the uncertainty around the quality of the company is resolved. However, anecdotal evidence from interviews with founders reveals that the quality of the company idea is one of many motivations for applying to an accelerator. The following paper seeks to better understand the

factors that influence a founder's choice of entrepreneurial finance, as well as shed light on crucial strategic concerns of entrepreneurs: fundraising and growth.

The research question is: how and why do founders choose accelerators as a source of finance?

Many factors, such as the background of the founder, the availability of traditional sources of financing, and local competition can influence this decision. The first step in this analysis is leveraging the matched sample from my job market paper to establish baseline empirical facts by relaxing the matching criteria of geographic location. In other words, the companies will now be matched on founding year, founding location, business description, funding pre-accelerator, and founder experience. I will further extend this data with the following: 1) data on founder education background, work experience, founding experience from LinkedIn; 2) data on new ventures collected directly from the CrunchBase team combined with data on venture capital fund inflows; and 3) data on local entrepreneurial activities, specifically competition from other new ventures. I propose that holding quality constant, founders in cities where competition for venture capital and angel financing is intense due to high demand are more likely to apply to accelerators as a means to validate their ideas and distinguish their companies. Furthermore, founders in cities where both the supply of entrepreneurial finance and local competition are low will also apply to accelerators—likely in a different city. This paper can lend insight into how geographic distribution of companies impacts accelerator participation and provide conditions under which an accelerator investment from local government is beneficial.