Simone Santamaria

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My name is Simone Santamaria, and I am a 3rd year PhD student at Bocconi University, Milan, Italy, where I work under the supervision of my advisor professor Alfonso Gambardella (the writer of my recommendation letter).

I have a Bachelor Degree in Economics and a Master of Science in Business Administration. In my short academic career, I have always tried to combine the rigor and the quantitative methodologies of economics to business problems and particularly entrepreneurship.
My bachelor thesis was an analysis of how venture capital financing affects the innovation performance of countries, while my MA thesis focused on the practices of successful entrepreneurs. Following my passion for entrepreneurship and start-ups, I collaborated with the technology and innovation magazine Wired and the European think-thank Action Institute writing about the evolution of the European start-up ecosystem.

My current research interests span several sub-disciplines of Strategy and Economics. In the Strategy field, they include business groups and entrepreneurship. In the Economics field, they involve small business economics, economic policies favoring entrepreneurship and economics of technical change. In particular, I'm interested in the latter from the perspective of new high tech firms commercializing radical technologies. This interest for high technology start-ups brought me first to one of the leading technology schools in Europe (ETH), and now in the Boston area.

I have a strong background in economics, quantitative methods and a deep knowledge about the academic literature in entrepreneurship and entrepreneurial finance. Thanks to my research, I developed also a very good knowledge in managing large datasets with the use of statistical software like STATA. I think that participating at the NBER entrepreneurial Research Boot Camp, getting in contact with the leading scholars in the field of entrepreneurship, and sharing ideas with them can greatly improve my future research.

Sincerely,

Simone Santamaria

My Research

Richard Branson created more than 400 companies before he founded the 10 billion company called Virgin. Henry Ford's early businesses failed and left him broke five times before he created Ford Motor Company. Strategy and Entrepreneurship literature has traditionally focused on the firm rather than the individuals who in many cases create and manage many businesses. My work is primarily aimed at studying and analyzing successful *entrepreneurial strategies* as opposed to the more traditional business strategies. What is interesting about this paradigm change is that failing or underperforming firms can be owned by very successful entrepreneurs, or vice versa. When the unit of analysis is the entrepreneur, every business should be considered as just instrumental to the entrepreneur's overall strategy and cannot be judged in isolation.

My first paper is an empirical analysis of how entrepreneurs who own more businesses at the same time (portfolio entrepreneurs; Westhead et al. 2005) behave. Studying the behavior of a sample of 13,445 Italian entrepreneurs over a time frame of five years (2006-2011), I found that portfolio entrepreneurs follow a strategy that is consistent with *Real Option Theory*. They create different firms (most of the time with the help of other business partners) to test several entrepreneurial initiatives in the market at the same time, but are very responsive to early market signals concerning those ventures. When confronted with a negative market signal, portfolio entrepreneurs shut down the underperforming firms immediately to reinvest their money into their other businesses. In contrast, single-business entrepreneurs tend to insist with their underperforming businesses for longer periods of time. This strategy explains why the (surviving) firms created by portfolio entrepreneurs systematically outperform single-business entrepreneur's companies in the long run, but have a lower survival rate and a shorter survival time compared to the latter.

Traditionally, scholars have adopted the real option framework to explain the behavior of investors and venture capitalists (e.g. Li et al. 2013). My results suggest that also some entrepreneurs adopt a similar logic when they decide to create more businesses. This seems to be consistent with the now growing literature on "entrepreneurship as experimentation" (Kerr et al. 2014, Stern 2005). According to this framework every new business can be considered as an experiment, because the knowledge required to be successful cannot be known in advance or deduced from some set of first principles. In the light of this consideration, the most successful entrepreneurs and investors are those who are able to experiment quickly and adjust their businesses according to the market signals. They are not necessarily the most "skilled" entrepreneurs of those with the "most brilliant ideas". This idea of experimentation is also at the core of some of the most successful "methodologies" developed for would-be entrepreneurs like Effectuation (Sarasvathy 2001) or Lean Start-Up (Ries 2011). Both approaches encourage a business development based on minimal investments, focus on early market clues, rapid prototyping, and openness to adaptation and change.

My forthcoming second paper concerns the modes of business growth. Successful entrepreneurs can grow their business in two ways. They can increase the size of their original company (organic growth) or create other companies (business portfolio). The aim of my study is to understand the relative advantages of this latter strategy over the former. Surprisingly enough, this is an underexplored topic in strategy literature. My preliminary results show that the creation of separate legal entities provides an incredibly flexible tool to entrepreneurs who want to grow their business. First, the creation of different legal entities allows the entrepreneur to open up his or her business to external capital without the risk of losing the control of the focal company. Second, the entrepreneur can more easily reduce the size of his or her business (by dissolving the other legal entities) when facing a negative market shock, without the need of a painful restructuring process of the focal company.

My other research projects involve the study of clusters of entrepreneurs, and their internationalization strategy. Finally, I am also working on a theoretical (industrial organization) model about the optimal response of incumbents who are threatened by the entry of start-ups with radical technologies. Currently, I'm visiting scholar at Boston University, where I presented my work in a seminar. I think that attending the NBER Entrepreneurship Research Boot Camp, having the opportunity to get in contact and learn from the most renowned scholars in the field can greatly improve my work. On my side, I can contribute to the community with my knowledge about an ecosystem, the European Entrepreneurship Ecosystem, that is different from the US one in many aspects.

References

Li, Y. & Chi, T.(2013) Venture Capitalists' decision to withdraw: the role of portfolio configuration from a real option lens. *Strategic Management Journal*, 34, pp.1351–1366.

Kerr, W.R., Nanda, R. & Rhodes-Kropf, M.(2014) Entrepreneurship as Experimentation. *Journal of Economic Perspectives*, 28(3), pp.25–48.

Ries, E.(2011) The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. Crown Business, New York.

Sarasvathy, S.D.(2001). Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *Academy of Management Review*, 26(2), pp.243–263.

Stern, S. (2005) Economic Experiments: The Role of Entrepreneurship in Economic Prosperity. In Understanding Entrepreneurship: A Research and Policy Report, edited by Carl J. Schramm, 16–20. Kauffman Foundation.

Westhead,P., Ucbasaran,D., Wright,M & Binks,M.(2005) Novice, Serial and Portfolio Entrepreneur Behavior and Contribution. *Small Business Economics*, 25 (2):109-132.

Curriculum Vitae – Spring 2016

Family name: Santamaria
Given name: Simone
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Qualifications

January 2016-Today
Visiting scholar at Boston University (BU), Massachusetts, USA.

September 2013-Today
Currently enrolled (with scholarship) in the Business Administration and Management PhD program at Bocconi University, Milan, Italy.

December 2013
Master degree in Economics and Management of Innovation and Technology at Bocconi University, Milan, Italy (2 year program). Graduated magna cum laude.

August 2012-February 2013
Erasmus Exchange Program at Eidgenössische Technische Hochschule (ETH), Zürich, Switzerland.

November 2011
Bachelor degree in Economics and Social Sciences at Bocconi University, Milan, Italy (3 year program).

Research Interests

Entrepreneurship, Venture Capital, Innovation Economics and Strategy.

Work Experience

January 2014-September 2014
Junior Associate of the Economic Think-Tank Action Institute.

June 2013-September 2013
Internship at Accenture Italy as a junior management consultant in the area of Financial Services.

February 2013-May 2013
Internship at Bocconi University as a research assistant.

Language Skills

Italian: Native
English: C1
Spanish: B1
(CEF Standard)

IT Skills

Word, Excel and Powerpoint (Office Package): Excellent knowledge
Statistics Softwares SPSS, Stata and SaS: Excellent Knowledge
Visual Basic Programming: Basic Knowledge
Matlab, R: Basic Knowledge

Other Activities

January 2014-January 2015
Freelance writer for the innovation and technology magazine Wired.

Completed PhD Courses

Methodological Courses

- Mathematics and Statistics for Business Studies
- Econometrics 1
- Econometrics 2
- Applied Business Analysis
- Agent-Based Models
- Qualitative Research Methods
- Laboratory and Field Experimental Methods
- Advance Quantitative Methods for Management Science Research
- Applied Survival (Duration) Analysis
- Social Network Analysis

Economics and Strategy Courses

- Business Economics 1
- Business Economics 2
- Microeconomics
- Economics of Technological Change and Innovation
- Technology and Innovation Management 1
- Technology and Innovation Management 2
- Strategy Foundations
- Technology and Strategy
- Corporate Strategy
- Contemporary Entrepreneurship Research
- International Business

Others

- Marketing Theory
- Sociology
- Organization Science
- Ethics in Organizations
- Managing the Review Process

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March 29th, 2016

Re: Letter of Recommendation, Simone Santamaria, NBER Entrepreneurship Research Boot Camp

Simone Santamaria is a third year student of Bocconi's PhD in Strategy & Economics working on his thesis under my supervision. As all our third year graduate students Simone has passed two-year courses and two qualifying exams. This includes a full year of high level courses in math, statistics, microeconomics, IO and econometrics. He also attended a course in business analytics in which he has learned machine learning techniques, in particular neural network applications.

Simone is one of the best students of his cohort and he is competent both in methods and strategy, innovation and related fields. Interestingly, he won a recent competition launched by Microsoft in Milan in which several students were asked to find patterns in a "big-data" dataset of the genetic code of sheep. The goal was to predict the origin of sheep by associating them in groups from their genetic code. In general, Simone has original ideas, he does not give whatever his advisor says for granted, and is able to make good arguments in favor or against a particular point in a scholarly conversation.

At present, Simone has three papers at different levels of development. The most advanced paper employs data on all the firms founded in Italy in 2006 (over 10 thousand firms) by a physical individual (not an established legal entity) as a proxy for firms founded by entrepreneurs. He has classified these entrepreneurs as "novice" or "portfolio" according to whether they are CEOs or own 51% or more of existing firms. He follows these firms up to 2014, and finds that the 2006 firm of the portfolio entrepreneurs (i) has a shorter average life; (ii) closes at a higher level of sales than novice entrepreneurs; (iii) grows faster conditional on survival; (iv) has higher unconditional average sales growth. He also finds that (v) portfolio entrepreneurs reallocate resources to other firms when they close the focal firm. Finally, he studies the performance of the 2006 focal firm of the portfolio entrepreneurs simulating the same average life and a closure size of novice entrepreneurs, and shows that (vi) the sales growth performance gap disappears. He concludes that even standard entrepreneurs (in a country with many such entrepreneurs like Italy) exploit the potential of option values of company portfolios. Simone has also developed a simple model that predicts all his empirical findings. The whole paper is based on his idea, his data collection and his own conclusions. I acted mainly as a good referee. Simone is currently visiting Boston University and presented his paper to the Strategy & Innovation group.

For his second paper, Simone has now collected data on all the new firms founded by a specific individual for the first time in 2001, as well as all the other firms founded by the same individual thereafter. By looking at the starting date of entrepreneurs, he plans to study the performance difference between portfolio and solo entrepreneur. The longer time series allows him to observe the creation of new firms by an entrepreneur who intends to exploit the portfolio strategy.

Simone has developed a model for his potential third paper and is looking for data to test it. The model predicts an equilibrium in which companies that acquire start-ups with the potential to disrupt their business also raise the product price and reduce quantity. In so doing, they induce other companies to act in the same way increasing the incentives to acquire new firms and prevent them from commercializing the new technology. The model finds conditions under which in the Cournot equilibrium quantities are strategic complements rather than substitutes. He is considering data in the pharma industry, or strategic patents.

All in all, Simone is an extremely creative person, and most capable of handling datasets. He will benefit considerably from participating in the NBER Entrepreneurship research boot camp, and I am sure that he will contribute to the intellectual atmosphere of the group. Since he is already in Boston, he will not require funding, if this makes any difference.

I will be happy to answer any other question that you may have.

Best Regards



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