Cover Letter

Applicant Contact Information:
Shelley Xin Li
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Recommendation Letter Writer:
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HARVARD | BUSINESS | SCHOOL

DENNIS CAMPBELL |
ASSOCIATE PROFESSOR OF BUSINESS ADMINISTRATION

March 30, 2013

Letter of Recommendation for the NBER Entrepreneurship Research Boot Camp Application of Shelley Li

I am pleased to write this letter to recommend Shelley Li for the NBER Entrepreneurship Research Camp. I have worked with Shelley over the past three years as both an advisor and a co-author. Shelley is one of our top doctoral candidates and has excelled in both her coursework and research to date.

In her most current work, Shelley is seeking to understand how to measure and reward entrepreneurial and creative activities within organizations. As a management accounting academic, Shelley is drawing from theoretical frameworks from organizational economics – most notably in the areas of incentive and relational contract design – to empirically investigate how firms can design incentives to attract "creative" people to join, to motivate different types of innovation, and to balance incentives for exploration versus exploitation. Shelley has been innovative in her own regard as she pursues this research agenda. In particular, she has been very active in identifying research sites where she is well positioned to obtain unique data to study these issues through field experiments, observational studies, or some combination of both.

In addition to her current research pursuits in this area, I have worked directly with Shelley on related research. In particular, Shelley and I conducted empirical research on how formal control systems give rise to relational contracts that persist even once those formal controls are abandoned. Shelley has been outstanding as a collaborator in this work and has demonstrated a strong capacity to do high level academic work ranging from theory development through data collection and analysis to writing and presenting finished work.

On a final note, I can't help but comment on Shelley's citizenship as an academic. In my view she is exemplary in this regard, and I often point to her as an example to follow when giving advice to other Harvard Business School doctoral students. She has taken a real leadership role among our students and seems to deeply care about the program, the school, and the academy more widely. In short, I think she is exactly the kind of academic our program should be seeking to produce and that she will surely develop into be a leading scholar in the organizational economics of innovation.

I hope that you will consider Shelley as a strong candidate for participation in the entrepreneurship research bootcamp, and please don't hesitate to contact me with any further questions about her candidacy if I can be of assistance.

Sincerely,

Dennis Campbell

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EDUCATION

Harvard Business School, *Boston, Massachusetts* July 2010-Present
Doctoral Candidate in Accounting and Management

Duke University, *Durham, North Carolina* May 2008
M.A. in Economics

Nankai University, *Tianjin, China* June 2006
B.A., **Double Degrees in Economics and Law, Minor in Business Administration**

WORKING PAPERS

Eccles, Robert G., Ioannis Ioannou, Shelley Xin Li, and George Serafeim. "Pay for Environmental Performance: The Effect of Incentive Provision on Carbon Emissions." Harvard Business School Working Paper, No. 13–043, November 2012.

WORK IN PROGRESS

Campbell, Dennis, and Shelley Xin Li. “Seeking Control: the Shadow from a Past Formal Control System and the Emergence of an Informal Control Mechanism”.

Li, Shelley Xin, and V.G. Narayanan. “When is Money More than Money? - How Short-term Financial Rewards Facilitate Sustainable Behavioral Changes within Organizations”.

OTHER PUBLICATIONS

Eccles, Robert G., George Serafeim, Shelley Xin Li, and Alan Knight. "Allied Electronics Corporation Ltd: Linking Compensation to Sustainability Metrics." Harvard Business School Case 412-075, April 2012. (Revised from original November 2011 version.)

Eccles, Robert G., George Serafeim, and Shelley Xin Li. "Dow Chemical: Innovating for Sustainability." Harvard Business School Case 112-064, March 2012. (Revised from original January 2012 version.)

AWARDS AND HONORS

2010-2013 Doctoral Fellowship, Harvard Business School
2002-2005 “Excellent Student Leader” and University Scholarship, Nankai University

TEACHING EXPERIENCE

2012-2013 General Management Program, Executive Education, Harvard Business School
2011-2013 Teaching Fellow, MBA Analytics Program, Accounting, Harvard Business School
2012 Teaching Fellow, Financial Reporting and Control MBA course, Harvard Business School

2006-2008 Grader, MBA and undergraduate economics courses, Duke University
2006-2008 Teaching Assistant, Asian and Middle Eastern Studies Program, Duke University

INVITED CONFERENCES

2013 Management Accounting Section Mid-year Meeting and Doctoral Colloquium (New Orleans): *Presenter* ("Pay for Environmental Performance: the Effect of Incentive Provision on Carbon Emissions"), *Discussant and session chair* (the "Cost Stickiness" session)
2013 Journal of Accounting and Economics Corporate Accountability Reporting Conference (Boston)
2011-2012 Information, Markets, and Organizations Conference (Boston)
2012 PRI (the UN Principles for Responsible Investment) Young Scholars Finance Academy (Switzerland): *Presenter* ("Pay for Environmental Performance: the Effect of Incentive Provision on Carbon Emissions")

PROFESSIONAL EXPERIENCE

Magna International, Inc., Troy, Michigan Sep 2008-Mar 2010
Tax Financial Reporting Specialist

- Prepared corporate financial forecasts, responded to IRS information requests in audit projects, and conducted research in uncertain tax positions and tax systems across countries.
- Prepared income tax provisions, federal income tax returns, state tax returns and state tax estimates for the U.S. consolidated group and individual entities.
- Researched legislations, regulations, tax treaties and case law on various international and domestic tax issues, and drafted memoranda summarizing research findings.

RTI International, *Research Triangle Park, North Carolina* July – Sep 2008
Intern Department of Commercialization

- Led the "competitor landscape" project by standardizing the process for competitor analysis and completing five competitor profiles.
- Supported the "medical device technology in the third world" project by reviewing financial models and setting up meetings with external partners; supported the "global climate change" project by researching updated legislations.
- Participated in the Center for Entrepreneurial Development seminars.

Cobble Hill Group, *Durham, North Carolina* June–Sep 2007
Research Analyst

- Researched 110 U.S. listed Chinese companies regarding the relationship between their financials, geographic and industry distribution and the decision of going public abroad.
- By covering SEC files, company websites, news, and other sources, both in English and Chinese, completed a report on the reverse merger cases to help identify and develop potential clients.

Professional Membership and Credentials:

- Financial Risk Manager (certified in 2010), Member of Global Association of Risk Professionals
- Certified Management Accountant, Member of American Accounting Association

ACTIVITIES

2007-2008 Representative, Graduate and Professional Student Council, Duke University
2003-2006 Class President, Nankai University
2003-2004 Vice President, Fangyuan Academic Forum, Nankai University

Languages: Chinese-Mandarin (native), English (Fluent).

Application Essay – NBER Entrepreneurship Research Boot Camp 2013

Why I want to attend the Entrepreneurship Research Boot Camp

My plan for future research focuses on the metrics and rewards used in entrepreneurial and innovation activities. For example, what are the tradeoffs between using a signal (i.e. metric) for the purpose of performance evaluation versus for the purpose of belief revision (learning)? How should firms design incentives to attract "creative" people to join, to motivate different types of innovation, and to balance incentives for exploration versus exploitation?

In order to better understand the phenomena, I have been reading literature and attending courses on entrepreneurship and innovation in my own field (accounting) and in general management. Furthermore, I've presented a list of research ideas to Professor Mike Tushman in organizational behaviors and Professor Clayton Christensen in general management, who are both leading scholars in the study of innovation. They both recognized the importance of studying the role of metrics and rewards in entrepreneurial and innovation activities, considering the potential information and incentive problems as of first-order importance.

However, accounting is after all an economics-based discipline that shares and applies the theories developed in contract theory and organizational economics. That is to say, my research needs to be and will be grounded in economic theory and will apply economic methodologies. This means that I need to catch up on reading and understanding the economics and finance literature in entrepreneurship and innovation. Attending the boot camp is one of the most cost-effective and productive ways (in terms of the use of time) of familiarizing myself with the economics-based literature in entrepreneurship and connecting with researchers who share similar research interests.

Past and Current Research

Broadly, my research interests are in the field of managerial accounting which studies the internal information and incentive systems of an organization, including management control systems, performance evaluation, incentive designs, and the delegation structure. As an empirical researcher, I look for data both on the firm-level and from within-firms ("inside the black box"), conducting econometric analysis on archival and survey data. Another way of generating real-world data is through field experiments (when we are fortunate enough to get the approval and cooperation from the management team).

The field of accounting and control has largely focused on established firms and stable settings, where control systems are viewed as tools to help execute strategies and minimize deviations or variations. My current research extends traditional managerial accounting topics to new problems or new contexts. For example, my paper with coauthors on the effectiveness of monetary versus nonmonetary incentives in reducing carbon emissions combines a traditional incentive design question with the new context of firms pursuing non-financial performance (e.g. environmental or social performance). The key take-away from the paper is: to motivate employees on environmental or social performance, it is important to know whether and to what extent employees perceive the incentivized behavior as pro-social. If, as what we show in the paper, people perceive the incentivized behavior as mostly pro-social, the monetary incentives are likely to be less effective.

My research project with Professor Dennis Campbell, examines whether a particular form of informal control mechanism, social control (i.e. conformity to others' behaviors), emerges after the removal of formal control

systems. Specifically, we examine how the emergence of such informal control mechanism is affected by members' exposure to past formal control systems. Our study empirically shows how organizational behaviors as group norms or a collection of individual decisions are dynamically updated, as well as how the initial control environment plays an important role in building and adapting to new organizational structure (and hence can help explain organizational rigidity in the face of environmental change).

These research projects help me understand better the relative effectiveness of monetary versus nonmonetary incentives in motivating tasks of different natures, as well as how informal control mechanisms play a role when management tries to balance the need of employee empowerment and maintaining organizational control. These insights are helpful for my future research, since entrepreneurial and innovation activities tend to be driven by a greater proportion of intrinsic or reputational motivation (which warrants examining the use of nonmonetary incentives). They also tend to require loosening (or removal) of rigid formal control systems which could lead to the emergence of informal control or coordination mechanisms.

Future Research

Under the general theme of "*metrics and rewards*" used in entrepreneurial and innovation activities, there are a few questions I aim to answer in my future research (including my dissertation work): 1) Are there indicators (leading or lagging) that would help a firm or an industry measure and detect a change in the basis of competition? And if firms don't detect such changes, is it because of insufficient information (i.e. not acquiring the "right" information) or because they focus on the "wrong" information (they already have or can easily obtain the "right" information)? And what are the causes for lacking the "right" information or focusing on the "wrong" information (e.g. not incentivized to do so; or behavioral bias; or other barriers)? 2) How do firms or projects use metrics or other methods to test their strategy and revise (update) their beliefs in the innovation or start-up process? In other words, how do they use metrics for the purpose of learning (belief revision) versus for the purpose of strategy execution (performance evaluation and monitoring)? 3) How to measure and incentivize innovation's long-term impact and spillover effect (e.g. building absorptive capacity, fostering innovation incentives, learning effect, etc.)?

Such studies will be mostly empirical analysis on archival (and possibly) survey data. At this stage, I am looking for data both on the firm-level (exploiting across firm variations on the use of metrics and/or incentives) and from within-firms (exploiting across projects or business units variations). If theoretical modeling or experiments can help me generate better insights into those questions, I am also open to applying those methodologies.

List of Doctoral Courses

Course Name	***Instructor(s)***
Econ 2020, Microeconomic Theory I and II	Avery
Econ 2110, Introductory Probability and Statistics for Economists	Ibragimov
Econ 2120, Introduction to Applied Econometrics	Chamberlain
Econ 2140, Econometric Methods	Imbens
MIT, Contract Economics	Holmstrom
MIT, Introduction to Organizational Economics	Gibbons
Stat 240, Matched Sampling and Study Design	Dasgupta, Rubin
Econ 2610, Industrial Organization	Pakes
Econ 2725, Corporate Finance	Benmelech, Scharfstein
MIT, Doctoral Seminar in Accounting	Weber
Management Control and Performance Measurement	Campbell
Management and Markets: Administration and Human Behavior	Cuddy, Khurana
Management and Markets: Organizational Economics and Finance	Larkin, Villalonga, Yao
DBA Research Workshop	Simpson, Yao
Empirical Research in Financial Reporting and Analysis	Srinivasan
Innovation and Organizations	Tushman
Building and Sustaining a Successful Enterprise	Christensen