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**Personal Statement**

**Harvard Business School**

**Degree Objective: PhD In Technology And Operations Management**

To whom it may concern:

I am applying to the Innovation track of the Technology and Operations Management doctoral program at Harvard Business School. I am interested in studying the impact of crowd-sourced innovation contests on companies’ research strategies, talent management and organizational design.This focus comes as a result of my experience managing product launches at a large corporation, and as an undergraduate in psychology and economics at Harvard. I am motivated to return to academia in order to expand our understanding of the mechanisms of innovation, which I believe drives all successful business.

As an undergraduate, I conducted several projects on how decision-making strategies inform technological innovation and adaptation. As Professor Amy Cuddy’s research assistant at HBS, I refined my understanding of the ways in which decision science is applied in business settings. I also worked for two years with Professor Calestous Juma, a renowned scholar of the political economy of innovation, with whom I co-authored a book chapter on the psychology of resistance to innovation, using genetically-engineered salmon as a case study. Working with Professors Cuddy and Juma was a formative experience for me. I found it deeply satisfying to create meaningful scholarship with a real chance to impact business and economic policy.

After graduation, I took on a position in the Health Care segment of Evonik Industries AG, a multinational chemicals company. My responsibility was to manage the launch of Evonik’s flagship nutraceutical product. In addition to developing a sales platform, I oversaw a 12-person international team, negotiated two joint venture agreements, and successfully closed our first sale. After seven months in this role, I was promoted to product manager and put in charge of three additional launches.

I was also tasked with codifying a set of launch best practices to support Evonik’s ventures into new markets. In my analysis, I found that many challenges in our launch process resulted from a lack of openness to outside knowledge during the R&D phase, depriving our innovation process of the expertise necessary to succeed in new markets. Looking for solutions to this challenge, I explored the academic literature on how companies manage in- and outflows of knowledge to accelerate internal innovation, a process often referred to as “open innovation.” Two main takeaways emerged for me. First, I was able to derive a set of actionable recommendations for my company from the literature on open innovation, which are now being rolled out across the segment. Second, I realized that I want to be not just a consumer, but an active contributor to this important field.

The topic that most intrigues me is the recent emergence of crowd-based online innovation platforms. Companies host competitions on these platforms to spur innovative solutions in diverse areas ranging from biochemistry to industrial design. As these challenges are generally free and open to anyone, important breakthroughs happen extremely fast. While I expect that my focus will evolve over the course of my doctoral work, I’d like to begin by investigating the ways that these platforms change the way businesses innovate. Below are outlines of three research questions I am interested in pursuing.

1. **Are complex high-uncertainty problems appropriate for crowd-sourced innovation?**

**Karim Lakhani**and colleagues identified problem uncertainty as a key factor that impacts the outcomes of online innovation competitions. This work forms an important foundation for understanding online innovation competitions, but the focus so far has been on low-uncertainty coding challenges. In contrast, the innovation problems most companies face are complex and high in uncertainty. I would like build on the work of Lakhani and colleagues by investigating how online challenges can be designed to yield quality results for high-uncertainty problems.

1. **What is the impact of crowd-sourced innovation on company-internal R&D?**

Some researchers argue that as crowd-sourced innovation becomes an increasingly attractive avenue for companies to access new ideas, they may gradually substitute internal R&D. Others maintain that internal R&D departments remain necessary to ensure that external ideas are in-sourced effectively. I would like to examine the risks and opportunities of crowd-sourced innovation for R&D-driven companies, and investigate measures that companies can take to maximize its benefits.

1. **What are the best practices for in-sourcing knowledge generated by the crowd?**

As a manager, I experienced first-hand how external knowledge was rejected because of an aversion to ideas “not invented here” and a lack of appropriate channels to incorporate the external expertise into the company’s knowledge infrastructure. However, successful knowledge insourcing is crucial for harnessing crowd-sourced ideas. I want to identify the success factors for effective in-sourcing of knowledge into the organization. This line of research is synergetic with **Vicki Sato**’s work on optimizing productivity in translating scientific discoveries into commercially viable products and services.

1. **How will crowd-sourced innovation impact companies’ talent management policies?**

Most online innovation platforms provide rankings of participants, and some offer to match top participants with companies. While this makes it easier for companies to identify talent in certain sectors, successful challenge participants may be less motivated to work for a single employer and might instead prefer to work as freelancers for multiple companies or to compete for prizes full-time. I am interested in how companies can best respond to this dynamic by adjusting their talent management strategies.

1. **What is the tradeoff between**

Further, following the vein of **Shane Greenstein**’s recent work, I want to develop ways to measure the impact of online innovation challenges on labor markets and the economy at large.

I am convinced that the analytical and leadership skills I have developed as a researcher and a successful manager make me well-suited to the scientific study of innovation management, and my training in psychology and economics can bring a novel perspective to the field. HBS is home to professors whose research has sparked my desire to become an academic – in particular, Karim Lakhani, Vicki Sato and Shane Greenstein. I am also eager to participate in the research initiatives at Harvard’s Crowd Innovation Lab and HBS’s Digital Initiative. I am committed to working closely with businesses to produce research that helps business thrive, and joining the doctoral program at HBS is the best way for me to continue working toward this goal.

Thank you for your time and consideration.

Sincerely,

Katharina Lix