Cover Letter

Syed Azhar Husain Jafri
PhD Candidate
Shailesh J. Mehta School of Management
Indian Institute of Technology Bombay
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Dear Professors,

I am writing to apply to the 2026 NBER Innovation Research Boot Camp. I am a fifth-year PhD student at the Shailesh J. Mehta School of Management, Indian Institute of Technology Bombay. My research focuses on the commercialization of innovation in emerging markets using large-scale patent and firm-level data.

My work examines how institutional environments, firm organization, and policy changes shape innovation outcomes and the economic returns to inventive activity. The Innovation Research Boot Camp is particularly appealing given its emphasis on empirical evidence and frontier questions in the economics of innovation and innovation policy. I believe the program would be especially valuable at this stage of my doctoral training as I continue to develop a policy-relevant research agenda in innovation economics.

My research work has been presented at major international conferences, and my doctoral coursework was supported by merit-based scholarships.

A confidential letter of recommendation will be submitted by **Professor Snehal Awate**, Associate Professor, IIT Bombay, who is my PhD advisor and is closely familiar with my research.

Thank you for your time and consideration. I would be grateful for the opportunity to participate in the 2026 NBER Innovation Research Boot Camp.

Sincerely,
Syed Azhar Husain Jafri

Curriculum Vitae

Syed Azhar Husain Jafri

PhD Candidate (5th Year)
Shailesh J. Mehta School of Management (SJMSOM)
Indian Institute of Technology Bombay
Email ID: jafri.azhar@iitb.ac.in

Research Interests

Economics of Innovation; Innovation Commercialization; Intellectual Property and Innovation Policy; Emerging Markets; Patent Analytics

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Education

Indian Institute of Technology Bombay
PhD in Management (Innovation & Strategy)
2021 – Present

Indian Institute of Management Bangalore
Master of Business Administration (MBA)
2014 – 2016

SASTRA University, Thanjavur
Bachelor of Technology (B.Tech), Computer Science and Engineering
2007 – 2011

Doctoral Coursework

(Indian Institute of Technology Bombay)

- Macro Economics
- Micro Economics
- Econometrics
- Statistics for Management Research
- Introduction to Research Methods
- Survey Research and Experimentation
- Qualitative Research Methodologies
- Corporate Strategy
- Core Topics in Strategic Management
- International Business
- Business and Sustainable Development
- Doctoral Research Seminars

- Geography of Innovation and the Multinational Enterprise
- Digitalization and Globalization

Research work

- Investor Responses to Innovation Commercialization as an Economic Signal *(Under review)*
- Business Group Size, Technological Diversity, and Innovation Commercialization *(Under review)*
- Institutional Change and the Nature of Innovation: Evidence from TRIPS and Patent Novelty and Ambiguity in India *(Preparing for submission)*
- Semantic Novelty, Ambiguity, and Patent Commercialization Outcomes *(Preparing for submission)*

Conference Presentations

- Strategic Management Society (SMS) Annual Conference, San Francisco, 2025
- Academy of International Business (AIB) Annual Conference, Seoul, 2024
- Research Policy – Early Career Researchers Conference, (Online Mode) 2024
- Strategic Management Forum Conference, Mumbai, 2024
- INDAM Conference, Pune, 2026

Awards and Honours

- **Best Paper Award**, Strategic Management Forum Conference, 2024
- **Shailesh J. Mehta Endowment Scholarship** for highest academic performance in PhD coursework

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Research Methods and Data

- Large-scale patent and firm-level administrative datasets
- Patent commercialization disclosures (Form 27, India)
- Econometric analysis (panel data, causal inference)
- Natural language processing of patent texts
- AI/ML-based semantic measures of novelty and ambiguity

PROFESSIONAL EXPERIENCE

Asian Paints Ltd. — *Product Manager*
2018 – 2021

HCL Technologies — *Global Engagement Manager*
2016 – 2018

Tata Consultancy Services (TCS) — *Systems Engineer*
2011 – 2014

ACADEMIC AFFILIATION

Doctoral Researcher, Innovation & Strategy
Shailesh J. Mehta School of Management, IIT Bombay

Current and Future Research; Reasons to attend the bootcamp

My research studies *how innovation moves from ideas to markets in emerging economies*. I focus on how institutions, firm organization, and policy environments shape whether inventive activity ultimately generates economic value. Using large-scale patent and firm-level data from India, I examine why some innovations are successfully commercialized while others remain unused, and how signals of commercialization are interpreted by investors, firms, and policymakers.

My completed and ongoing work is organized around *four closely related themes*. In my first project, I examine how investors interpret *innovation commercialization as an economic signal*. Using patent-level commercialization disclosures, I study whether markets distinguish between inventions that remain on paper and those that are actually deployed, and how this distinction shapes firm valuation and access to finance. In a second project, I focus on the *role of internal organization in commercialization*. I analyse how business group characteristics affect innovation outcomes, documenting an inverted-U relationship that reflects the tension between coordination costs and opportunities for knowledge recombination. Both of these papers are currently under review at top journals.

My third and fourth projects examine *how institutions and knowledge characteristics shape the nature of innovative activity*. In one project, I study how the TRIPS-induced strengthening of intellectual property rights in India altered innovation behaviour, focusing on changes in patent novelty and ambiguity rather than patent counts alone. Building on this, I develop semantic measures of novelty and ambiguity using natural language processing techniques applied to patent texts, and analyze how these dimensions relate to subsequent commercialization. Together, these projects show how institutional reforms and the nature of knowledge interact to shape firms' incentives to commercialize innovation, rather than simply to patent it.

Methodologically, my research draws on *large administrative datasets*, including comprehensive patent commercialization disclosures (Form 27), combined with econometric analysis and AI-based text methods. Across projects, a central goal is to improve the measurement of innovation outcomes that matter economically—such as commercialization, diffusion, and appropriability—particularly in emerging-market settings where standard R&D and patent indicators are often incomplete or noisy.

Looking ahead, I plan to extend this agenda in a more explicitly policy-focused direction. I am particularly interested in studying how recent policy changes in India—such as R&D tax incentives, patent box regimes, shifts in public-sector R&D priorities, and regulatory changes in pharmaceuticals—affect not only the level of innovative activity, but its commercial orientation and economic relevance. I also aim to explore how advances in artificial intelligence are reshaping innovation incentives, especially in green and sustainability-oriented technologies, and whether AI lowers barriers to commercialization or instead leads to greater concentration in innovative output.

I am eager to attend the NBER Innovation Research Boot Camp because it offers a unique opportunity to deepen my engagement with the economics of innovation and innovation policy. While my research addresses core questions related to incentives, institutions, and innovation outcomes, I hope to further strengthen its theoretical foundations and policy framing. Exposure to frontier research, direct feedback from leading scholars, and participation in the NBER Summer Institute Innovation Policy meetings would play an important role in shaping how I

develop future research questions and communicate my work to economics audiences. I see this boot camp as a key step in building a sustained research agenda at the intersection of innovation, policy, and economic development.

Thank you for taking out time to review my application.

Indian Institute of Technology Bombay

SJMSOM Innovation, Leadership, Entrepreneurship IIT Bombay

11 Feb. 25

Dear Selection Committee members:

I am Dr. Snehal Awate, faculty of Strategy at the Indian Institute of Technology Bombay, India. My research and teaching are at the intersection of Strategic Management and International Business, with a focus on organizational learning and innovation. I am pleased to recommend Mr. Syed Azhar Husain Jafri for the NBER Innovation Research Boot Camp 2026.

Azhar's research examines how innovation is commercialized in emerging markets, with particular attention to the role of institutions, firm organization, and policy changes. His work engages directly with questions that are central to the economics of innovation, including why some inventive activity translates into market outcomes while other innovations do not. Across his projects, he combines large-scale patent and firm-level data with careful empirical analysis and text-based NLP methods to study commercialization.

What stands out the most in Azhar's work is his ability to frame sharp and meaningful research questions. He has a strong command of the innovation and intellectual property literature, and he is able to identify gaps that are both theoretically interesting and empirically tractable. Azhar develops strong intuition about the mechanisms at play and formulates clear, testable research questions. He also consistently invests efforts to assemble novel data and learn new methodological approaches. This combination of theoretical grounding and methodological creativity is a clear strength of his research.

Azhar has shown research maturity and independence, with multiple high-quality papers emerging from his doctoral work. He is at a stage where engagement with frontier work in innovation economics and direct interaction with the NBER innovation community would be especially valuable. I am confident that the Innovation Research Boot Camp would play an important role in shaping the next phase of his research.

Thus, with great enthusiasm, I recommend Azhar for this program. Please feel free to contact me if you require any additional information.

With best regard

Snehal S. Awate

Snehal S. Awate, PhD
Faculty of Strategic Management
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https://scholar.google.com/citations?user=thcW13EAAAAJ&hl