Bohong Ma

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Nanjing University
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Education

Bachelor of Management   **Nanjing University**

School of Information Management   *Sep 2017 – Jul 2021*

- **GPA**: 81.8/100
- **Awards and Honours**: People's Scholarship | 2018, 2020
  Excellent graduation thesis of Nanjing University | 2021
  Recommended Postgraduate Admission without Examination | 2021

Research Master of Management   **Nanjing University**

School of Information Management   *Sep 2021 – Present (Graduation: Jul 2024)*

- **GPA**: 84.1/100
- **Supervisor**: *Lele Kang* Homepage: **https://im.nju.edu.cn/kll1_en/list.htm**
- **Awards and Honours**: Outstanding Graduate Student (Top 1.26%) | 2022
  First Class Academic Award (Ranking 3/132) | 2022
  Second Class of Merit Scholarship | 2022

Knowledge and Skills

Knowledge Background:
- Information Management and Systems (major in undergraduate period)
- Computer Science and Technology (minor in undergraduate period)
- Innovation Management (main research area during the postgraduate period)

Research Areas:
- **Technology convergence** in the global innovation process.
- How to innovate more efficiently? **Labor input** and **innovation communities**.
- How can **imitative innovation** help companies gain competitive advantage?

Programming: R & Python (both 5 years experience)

Research Skills: Empirical Analysis, Network Analysis, Informetrics, Data Mining (Integration of heterogeneous database)

Other Skills:
- **Database Administrator:** Responsible for **building and maintaining** multiple databases in my laboratory. 2 database clusters, TB level data, and 50+ users.
- **Server Administrator:** Manages two server clusters within our institute. Over 60 servers are configured to meet the research needs of a team of approximately 200 people.
- Can build a server cluster or a database from scratch. Can enhance the digital capabilities of any organization or group I work with.

Research Paper

Published

- Wenjing Zhu, **Bohong Ma** & Lele Kang. (2022). Technology Convergence among Various Technical Fields: Improvement of Entropy Estimation in Patent Analysis. [J]. *Scientometrics*. [URL] https://link.springer.com/article/10.1007/s11192-022-04557-6

- Wenjing Zhu, **Bohong Ma** & Lele Kang. (2021). The Trend of Technological Convergence Based on Patent Analysis. [C]. *The 18th International Conference on Scientometrics & Informetrics (ISSI 2021)*.
  [URL] https://www.webofscience.com/wos/alldb/full-record/WOS:000709638700152

Submitted

- **Bohong Ma**, Erqi Liu & Lele Kang. Transnational innovation and innovation efficiency from the perspective of labor input. *Journal of the Knowledge Economy*. Under Review (Submitted in April 2023).

  [Brief Introduction] In the usual discussion of innovation efficiency, researchers usually abstracted innovation as a "money in, innovations out" process, focusing on evaluating the balance between capital input and innovation output. After referring to the Cobb-Douglas Production Function, this paper points out the importance of *labor input*, and delves into the comparison between domestic innovation and transnational innovation. Based on the analysis of global patent data for several decades, we verify the general *efficiency decline* of transnational innovation compared with domestic innovation from the perspective of labor input. We also investigate the organizational antecedents of this inefficiency.

- **Bohong Ma**, Wenjing Zhu & Lele Kang. Knowledge Structure and Innovation Performance in Innovation Communities. *Research Evaluation.* Under Review (Submitted in July 2023).

  [**Brief Introduction**] This study thus applies a community detection algorithm to identify more than 9 million Innovation communities (ICs) from the global network of tens of millions of innovators. Compared with traditional analysis units (e.g., company), ICs provide a more reliable basis for innovation units, thus eliminating conflicts and inconsistencies in the existing literature regarding the influence of knowledge base structure on innovation performance.

Preparation

- **Bohong Ma** & Lele Kang. How does imitative innovation help companies gain competitive advantages? The niche impact of knowledge components in ecosystems.

  [Brief Introduction] This research focuses on how innovative organizations gain a competitive advantage through imitative innovations. Past related studies have had two main issues: 1) a lack of credible evidence on imitation innovation at a sufficient scale, with most prior research relying on qualitative analysis or case studies. 2) The mechanisms of how innovation organizations gain competitive advantage through imitative innovation remain unclear. To address these two issues, we consider Shadow Patents (patents that mimic existing technologies) as credible evidence of imitative innovation and theoretically hypothesize imitative innovation can easily help innovation organizations gain competitive advantages when they have a broad and well-connect existing knowledge base and a narrow or specialized direction of subsequent innovation.

Entrepreneurial Experience

- **[Business Model and Product]** In 2019 fall, my partner and I created the *VSR Data Analysis* project, providing programming and data analysis services for students and researchers. We utilized *Taobao.com* as our C2C delivery platform, enabling customers to seek advice, make payments, and receive services online.
- **[My Role]** My role primarily involved serving as a **technical consultant**, evaluating customer requirements, and either assigning them to the appropriate analysts. Sometimes I take on analytical tasks myself.
- **[Financial Success]** Our 3-year turnover exceeded **500,000 RMB**, of which the total amount of projects I was fully responsible for exceeded **100,000 RMB**.
- **[Team Growth]** At its peak, we have a team of more than **200 analysts** (80% are master's or doctoral students), including **30 long-term collaborators**.
- **[Analyst Development]** I have directly trained more than 10 analysts and designed a proven program for producing good analysts, including training in professional skills and comprehensive competencies.

Teaching Assistant Experience

- **Introduction to data science and data analysis**
  Tutorial TA (2020):   *Homework correction, question answering*
  Lecturing TA (2021):   *Homework correction, question answering, programming course teaching*
  - **[Target Audience]** Undergraduates at NJU. IM., **highest credit**, **lowest pass rate**
  - **[Course Content]** Its contents include data thinking, common statistics & machine learning algorithms, and the introduction & application of Python & R.

  When I took this course during my undergraduate years (Fall 2018), I got 96/100 (the highest score among all my peers).
- **The foundation of big data analysis and application**
  Tutorial TA (2020):   *Homework correction, question answering*
  Lecturing TA (2021, 2022):   *New online judge (OJ) system design, programming course teaching*
  - **[Target Audience]** Undergraduates at NJU. IM. School.
  - **[Course Content]** Advanced R language applications, big data and distributed computing (Python & R), and R Markdown

  When I took this course during my undergraduate years (Spring 2019), I got 94/100.

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