

Heli Zhang

National University of Singapore
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Education

- Research Fellow, National University of Singapore, Institute of Operations Research and Analytics, Singapore, December 2024 to present.
- Doctor of Management, Management Science and Engineering, Chengdu University of Technology, Chengdu, China, September 2020 to August 2024.
- Visiting PhD Student, National University of Singapore, Institute of Operations Research and Analytics, Singapore, February 2023 to January 2024.
- Master of management, Management Science and Engineering, Chengdu University of Technology, Chengdu, China, September 2019 to June 2020.
- Bachelor of Engineering, Sichuan University of Science and Engineering, Zigong, China, September 2013 to June 2017.

Academic Experience

Supply Chain Management -- Game Theory -- Management Optimization -- Machine Learning -- Financial Risk Management

In my postgraduate research, I dedicated myself to financial risk management and machine learning, trying to solve the problems of analysis and early warning under the instability of the financial market. In my doctoral research, I tried to contribute theoretical and algorithmic efforts to supply chain management, including pricing strategies, inventory control, and stochastic modeling.

With my background, I am extremely interested in management science and operation research, solving the development problems in social-economic processes with the ubiquitous existence of human factors. Apart from this, I am willing to devote myself to the development of operations research and management. In future research works, I would try to bring these theoretical efforts to applicational fields at more traditional management science branches, such as marketing and finance, upon which to get engaged in more topic-oriented studies.

Programs

- 1) **Food Resilience Project**, National University of Singapore, Institute of

- Operations Research and Analytics, September 2023 to January 2024.
- 2) **Research on the optimization of the development path for science and technology finance in Chengdu**, Chengdu University of Technology, August 2021 to August 2023.
 - 3) **Big Data Intelligent Early Warning Method and Application of China's Financial Market Risk under Supply Side Structural Reform**, National Social Science Foundation of China, September 2019 to August 2022.
 - 4) **Supply Chain Decision-making of Small and Medium Sized Enterprises under Supply Side Structural Reform**, National Social Science Foundation of China, June 2020 to December 2021.
 - 5) **Research on deep integration of science, technology and Finance**, Sichuan Provincial Department of Education, January 2020 to December 2020.

Publications

- 1) **Zhang H**, Chun W, Yuan X-M, Liu W, Chou M C. 2024. The governance of irresponsible new energy vehicle members considering differentiated subsidies. *Sustainable Cities and Society*, 104: 105289.
- 2) **Zhang H**, Chun W, Chun Z, Pu J. 2023. Study of the Stock Market Risk Warning Based on GWO-SVM. *Operation Research and Management Science*, 32(04): 192-197.
- 3) **Zhang H**, Chun W, Yan R, Cao R. 2023. Study of closed-loop supply chain decision-making of new energy vehicles considering differentiated subsidies under dule cycle policy. *Frontiers of Science & Technology of Engineering Management*, 42(02): 67-74.
- 4) Chun W, Zhu H, Li H, **Zhang H**. 2021. Has Supply-side Structural Reform Reduced Systemic Financial Risks in China? – Based on the Perspective of Risk Contagion. *Forecasting*, 40(04), 38-44.
- 5) Chun W, Wang L, **Zhang H**. 2020. Study of the Financing Strategy of Expansive Retailer from the Perspective of Financing Structure. *Soft Science*, 34(12), 140-144.
- 6) **Zhang H**, Chun W, Yuan X-M, Chou M C. Financing strategies of capital-constrained new energy vehicle manufacturers under differentiated government subsidies. *Transportation Research Part E: Logistics and Transportation Review*. (Under review)

Conferences

- 1) **the 23rd China Management Science Annual Conference**, 2021, Chengdu, Sichuan, China.
- 2) **The 18th Annual Conference on financial system engineering and risk management**, 2020, Beijing, China.
- 3) **Conference of Management Science and Engineering**, 2020, Taiyuan, Shanxi, China.
- 4) **The 15th China Management Annual Meeting**, 2020, Chengdu, Sichuan, China.

Research skills

Mathematical modelling; Model derivation; Analysis using SPSS, EViews, STATA and MATLAB.