TANG Huajun

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Dept/Fields: Department of Decision Sciences/ Supply Chain & Business Analytics

Academic Qualification

2005-2009 Ph.D.: The Hong Kong Polytechnic University, Management Science;
2002-2005 Master: Nanjing University, Operations Research;
1998-2002 BS/BA: Zhejiang Normal University, Applied Mathematics.

Working Experience

2021-Present Professor/MUST
2014-2021 Associate Professor/MUST
2009-2014 Assistant Professor/MUST

Teaching Activities

Management Science, Business Analytics, Supply Chain Management, Decision & Optimization.

Research Areas

Supply Chain Finance, Business Analytics & Decisions , Omni-channel Supply Chain

Selected Journal Papers

1) Lin, XX, Xiong, YL, Wang, YQ, **Tang, HJ**, Wen, XW. The influence of consumer ethnocentrism and cosmopolitanism on purchase intentions of Chinese pre-made dishes. *Journal of Retailing and Consumer Services,* 2025, 82, 104132.
2) Yao, Y, Geng, SQ, Chen, JH, Shen, F, **H. Tang**. Optimal Decision-Making in a Green

Supply Chain Duopoly: A Comparative Analysis of Subsidy Strategies with Data-Driven Marketing. *Mathematics*, 2025, 13(6), 965. (SCI)

3) Zeng F., Pang C., **H. Tang**. The impacts of natural marine disasters on shipping industry in China: An event study. *Journal of Sea Research*, 2025, 204. (SCI)
4) Ran H.J., He D.C., **H. Tang**. Network optimization of fresh products cold chain considering supply disruption and demand fluctuation under the dual-carbon policy. *Mathematics*, 2025, 13(9), 1539. (SCI)
5) Y Huang, P He, TCE Cheng, S Xu, C Pang, **H. Tang**. Optimal strategies for carbon emissions policies in competitive closed-loop supply chains: a comparative analysis of carbon tax and cap-and-trade policies. *Computers & Industrial Engineering*, 2024, 195, 110423. (SCI)
6) Y Xu, Y Tian, C Pang, **H. Tang**. Manufacturer vs. retailer: a comparative analysis of different government subsidy strategies in a dual-channel supply chain considering green quality and channel preferences. *Mathematics*, 2024, 12 (10), 1433. (SCI)
7) L Zeng, H Hu, H Tang, X Zhang, D Zhang. Carbon emission price point-interval forecasting based on multivariate variational mode decomposition and attention-LSTM model. *Applied Soft Computing*, 2024, 157, 111543. (SCI)
8) Zeng, F., Pang, C., **H. Tang**. Sensors on internet of things systems for the sustainable development of smart cities: a systematic literature review, *Sensors*, 2024, 24 (7), 2074. (SCI)
9) J Chen, Y Tian, FTS Chan, **H. Tang**, PH Che. Pricing, greening, and recycling decisions of capital-constrained closed-loop supply chain with government subsidies under financing strategies. *Journal of Cleaner Production*, 2024, 438, 140797. (SCI)
10) Y Huang, Y Chen, C Pang, **H. Tang**. Optimisation of evacuation and emergency materials distribution under natural disaster. *International Journal of Shipping and Transport Logistics*, 2024, 18(2), 138-164. (SSCI)
11) Zhang, L., Guan, L., Long, D.Z., Shen, H., **H. Tang**. Who is better off by selling extended warranties in the supply chain: the manufacturer, the retailer, or both? *Annals of Operations Research*, 2023, 1-27. (SCI)
12) Zeng, F., Pang, C., **H. Tang**. Sensors on the internet of things systems for urban disaster management: a systematic literature review. *Sensors*, 2023, 24 (7), 2074. (SCI)
13) Xu, S.Y., **H. Tang**, Huang, Y.X. Inventory competition and quality improvement decision in dual-channel supply chain with data-driven marketing. *Computers and Industrial*

Engineering, 2023, 183,109452. (SCI)

14) Wang, H., Pang, C., **H. Tang**. Pricing and carbon-emission-reduction decisions under the bops mode with low-carbon preference from customers. *Mathematics*, 2023, 11(12), 2736. (SCI)
15) Xu, S.Y., **H. Tang**, Huang, Y.X., Decisions of pricing and delivery-lead-time in dual-channel supply chains with data-driven marketing using internal financing and contract coordination, *Industrial Management & Data Systems*, 2023, 123 (3), 1005-1051. (SCI)
16) Chen, Y.W., Liu, X.J., Huang, K.Q., **H. Tang**. Pricing and service effort decisions of book dual-channel supply chains with showrooming effect based on cost-sharing contracts, *Sustainability*, 2022, 14(18), 11278. (SCI, SSCI)
17) H Zhao, **H. Tang**, C Pang, H Jiang. A Markov chain model for approximating the run length distributions of Poisson EWMA charts under linear drifts. *Mathematics*, 2022, 10(24), 4786.
18) Wang, Xiangping, Lai, Ivan Kai Wai, **H. Tang**, Chuan Pang, Coordination analysis of Sustainable dual-channel tourism supply chain with the consideration of the effect of service quality, *Sustainability*, 2022, 14(11), 6530. (SCI, SSCI)
19) Huimin Jiang; Farzad Sabetzadeh; Zhijun Lin; **H. Tang**, Nonlinear time series fuzzy regression for developing explainable consumer preferences models based on online comments, *IEEE Transactions on Fuzzy Systems*, 2022, 30(10): 4460-4470. (SCI)
20) Xu, Senyu, **H. Tang**, Lin, Zhijun, Lu, Jing, Pricing and sales-effort analysis of dual-channel supply chain with channel preference, cross-channel return and free riding behavior based on revenue-sharing contract, *International Journal of Production Economics*, 2022, 249. (SCI, SSCI)
21) Yang, Shujun, Lai, Ivan Kai Wai, **H. Tang**, Pricing and Contract Coordination of BOPS Supply Chain Considering Product Return Risk, *Sustainability*, 2022, 14(9). (SCI, SSCI)
22) X.Y. Jin, **H. Tang** and Y.X. Huang, Dynamic stochastic optimization of emergent blood collection and distribution from supply chain perspective, *Complexity*, 2021, 5532672. (SCI, SSCI)
23) Zhong, Y.G., Lai, Ivan Kai Wai, Guo, F.F., **H. Tang**, Research on government subsidy strategies for the development of agricultural products e-commerce, *Agriculture-basel*, 2021, 11(1). (SCI, SSCI)
24) Wu, Z.L., Lai, Ivan Kai Wai, **H. Tang**, Evaluating the sustainability issues in tourism development: an adverse-impact and serious-level analysis, *Sage Open*, 2021, 11(4). (SSCI)
25) S. Y. Xu, **H. Tang** and Z.J. Lin, Inventory and ordering decisions in dual-channel supply

chains involving free riding and consumer switching behavior with supply chain financing, *Complexity*, 2021, 5530124. (SCI, SSCI)

26) Xu, M., Lai, I.K.W., **H. Tang**. From corporate environmental responsibility to purchase intention of Chinese buyers: The mediation role of relationship quality. *Journal of Consumer Behaviour*, 2021, 20(2), pp. 309–323. (SSCI)

27) Yang S.J., **Tang H.J.**, Li Yi. Research on Pricing and Decision Making of BOPS Omni-channel Supply Chain with the Risk of Returning. *Technoeconomics & Management Research,* 2021, 3(3): 112-118.

28) Zhong, Y., Lai, I.K.W., Guo, F., **H. Tang**. Effects of partnership quality and information sharing on express delivery service performance in the E-commerce industry. *Sustainability*, 2020, 12(20), pp. 1–19, 8293. (SCI, SSCI)

29) Zhang, X., Lai, I.K.W., Fu, J., **H. Tang**. Hazard analysis of bidder collusion in reverse auctions based on petri nets. *IEEE ACCESS*, 2020(8): 89546-89561. (SCI, SSCI)

30) Zhong, Y., Guo, F., **H. Tang**, Chen, X. Research on coordination complexity of e-commerce logistics service supply chain. *Complexity*, 2020, 7031543. (SCI, SSCI)

31) Liu, Jie, Chen, Xumei, Zhang, Yixin, Fang, Zengli, **H. Tang**, Model design and application of regional hub-and-spoke freight network, *Journal of Harbin Institute of Technology*, 2020, 52(9):1-7 (EI)

32) Zhong, Y., F. Guo, Z. Wang, and **H. Tang**. Coordination Analysis of Revenue Sharing in E-commerce Logistics Service Supply Chain with Cooperative Distribution. *Sage Open*, 2019, 9(3): 1-15. (SSCI)

33) Hua, M., L. Wai, and **H. Tang**. Analysis of Advertising and a Points-Exchange Incentive in a Reverse Supply Chain for Unwanted Medications in Households Based on Game Theory. *International Journal of Production Economics*, 2019(217): 259-268. (SCIE, SSCI)

34) Chen, G., and **H. Tang**. A Research on the Innovative Mechanism of the Business Models of Supply Chain Enterprises. *Science Research Management*, 2018, 39(12): 113-122. (CSSCI)

35) Zhang, X., **H. Tang**, D. Yang, M. El-Meligy, and Z. Li. Comparative Analysis of Sequential and Combinatorial Auctions Based on Petri Nets. *IEEE Access*, 2018(6): 38071-38085. (SCI)

36) Hu, W., and **H. Tang**. Study of Online Supply Chain Financing Modes Based on B2B Platforms. *Financial Theory and Practice*, 2017(11): 43-50. (CSSCI)

37) Chen, G., and **H. Tang**. Research on Open Innovative Mechanism of Supply Chain

Management Based on Theoretical Hypothesis of "Zero Marginal Cost" under IOT. *China Business and Market*, 2017, 31(8): 105-115. (CSSCI)

38) Hua, M., **H. Tang**, and I. Lai. Game Theoretic Analysis of Pricing and Cooperative Advertising in a Reverse Supply Chain for Unwanted Medications in Households. *Sustainability*, 2017, 9(10): 1902. (SCI, SSCI)

39) Zhang, X., Z. Li, Y. Huang, and **H. Tang**. Performance Analysis of Reverse Auction Mechanisms Based on Petri Nets. *Advances in Mechanical Engineering*, 2017, 9(9): 1–17. (SCI)

40) Chen, Y., **H. Tang**, T. Nie, and X. Lin. Integration of Congestion-Related Emissions in a Transit Bus Scheduling Problem during Rush Hours. *Environmental Engineering and Management Journal*, 2015, 14(8): 1849-1856. (SCI)

41) **Tang, H.**, A. Elalouf, E. Levner, and T. Cheng. Efficient Computation of Evacuation Routes on a Three-Dimensional Geometric Network. *Computers & Industrial Engineering*, 2014(76): 231-242. (SCI)

42) **Tang, H.**, C. Pang, and C. Ng. Optimization of Vehicle Population and Reduction of CO_2 Emission. *International Journal of Shipping and Transport Logistics*, 2014, 6(4): 412-421. (SSCI)

43) Amir, E., L. Eugene, and **H. Tang**. An Improved FPTAS for Maximizing the Weighted Number of Just-in-Time Jobs in a Two-Machine Flow Shop Problem. Journal of *Scheduling*, 2013, 16(4): 429–435. (SCI)

44) **Tang, H.**, Z. Sun, and X. Xu. The Influence of Perceived Reward for Creation, Exploitative Learning and Creative Performs to Job Performance. *Advances in Information Science and Service Science*, 2013, 5(3): 340-346. (EI)

45) **Tang, H.** A Note on the Nestedness Property for Ordered Median Problems in Tree Networks. *Journal of Systems Science and Complexity*, 2013, 26(3): 335-340. (SCI)

46) **Tang, H.**, T., Cheng, and C. Ng. A Note on the Sub-Tree Ordered Median Problem in Networks Based on Nestedness Property. *Journal of Industrial Management and Optimization*, 2012, 8(1): 41-49. (SCI)

47) **Tang, H.**, T. Cheng, and C. Ng. Multi-Facility Ordered Median Problems in Directed Networks. *Journal of Systems Science and Complexity*, 2011, 24(1): 61-67. (SCI)

48) **Tang, H.**, T. Cheng, and C. Ng, Multi-Facility Convex Ordered Median Problems in Networks. *Computers & Industrial Engineering*, 2009, 57(3): 707-712. (SCI)

49) **Tang, H**., and Y. Chen. Upper Signed Domination Number. *Discrete Mathematics*, 2008,

308(15): 3416-3419. (SCI)

50) **Tang, H**., and Y. Chen. Acyclic Domination Number and Minimum Degree in 2-Diameter-Critical Graphs. *Ars Combinatoria*, 2008(86): 51-56. (SCI)

Major Conference Papers

1. Yao, Y., Tang, H. Duopoly competition in green supply chains: decision optimization based on data-driven marketing and government subsidies. ***Annual International Conference for Digital Intelligence Logistics and Supply Chain Management (DILSCM2024)***, 2024.
2. Mo, S.L., Tang, H. Research on supply chain network design and warehouse location simulation optimization. ***Annual International Conference for Digital Intelligence Logistics and Supply Chain Management (DILSCM2024)***, 2024.
3. Huang, Y.X., **Tang, H**. Optimal strategies for carbon emission policies in competitive closed-loop supply chains: a comparative analysis of carbon tax and cap-and-trade policies. ***Annual International Conference for Digital Intelligence Logistics and Supply Chain Management (DILSCM2023),*** 2023.
4. Yang, T, **Tang, H**. Optimal strategies for credit sales competition and service efforts in dual-channel supply chain coordination. ***Annual International Conference for Digital Intelligence Logistics and Supply Chain Management (DILSCM2023),*** 2023.
5. Zhan, Y.Y., **Tang, H.** A dual-path research on the effect of green supply chain on supply chain performance under the targets of carbon peaking and carbon neutrality. ***Annual International Conference for Digital Intelligence Logistics and Supply Chain Management (DILSCM2023),*** 2023.
6. Lu, W.D., **Tang, H.** Optimization of staffing allocation scheme for logistics center with extremely unbalanced demand based on NSGA-II algorithm. ***Annual International Conference for Digital Intelligence Logistics and Supply Chain Management (DILSCM2023),*** 2023.
7. Xu. Y., **Tang, H.** Research on dual-channel green supply chain decision-making considering different government subsidy strategies. ***Annual International Conference for Digital Intelligence Logistics and Supply Chain Management (DILSCM2023),*** 2023.

8. Huang, Y.X., **Tang, H**. **:** Pricing decisions of competitive supply chain under carbon emission policy. ***Annual International Conference for Chinese Scholars in Industrial Engineering (CSIE2023),*** 2023.
9. He, P.F., **Tang, H**. Joint pricing and inventory decision of dual channel supply chain under demand ambiguity: based on a fuzzy optimization method, ***Annual International Conference for Chinese Scholars in Industrial Engineering (CSIE2023),*** 2023.
10. Shujun Yang, **Tang, H**. Research on Omni-channel Supply Chain Pricing Decision with the Allowance of Cross-channel Return. ***2021 IEEE International Conference on Industrial Engineering and Engineering Management (CPCI)***. 2021.
11. X.P. Wang, **Tang, H**. Research on Tourism Supply Chain Coordination Under the Background of Low-Carbon Tourism. ***2020 IEEE International Conference on Industrial Engineering and Engineering Management (CPCI)***. 2020.
12. Xu, S., **Tang, H**. Analysis of retailer's order decision with the allowance of acc payment based on supply chain financing, ***IEEE International Conference on Industrial Engineering and Engineering Management (CPCI)***, 2019.
13. Jing Xiangyu, **Tang, H**., Liu Xiaojun. Blood supply chain design for urgent relief demand under limited funds and time, ***46th International Conferences on Computers and Industrial Engineering*** **(EI)**, 2016.
14. Huang Bo, **Tang, H**. The study of revenue sharing about two tow-level supply chains based on the Shapley Value, ***46th International Conferences on Computers and Industrial Engineering*** **(EI)**, 2016.
15. Hua Mei-Na, **Tang, H**., & Wu Zi-Lin, Analysis of a pharmaceutical reverse supply chain based on unwanted medications categories in household, ***IEEE International Conference on Industrial Engineering and Engineering Management*** **(EI**), 2016-December, p 1493-1497, December 27, 2016.
16. Huang, Bo; **Tang, H**., Study of workshop production system based on Petri nets and flexsim, ***Proceedings of The 22nd International Conference on Industrial Engineering and Engineering Management: Core Theory and Applications of Industrial Engineering (CPCI),*** 833-844, 2016.

17. Wu Zi-Lin, **Tang, H**., & Hua Mei-Na, Supply chain optimization of fast moving consumer goods in revenue-sharing contract based on option theory, ***5th International Conference on Logistics and Supply Chain Management*** (EI), p 173-179, 2015.
18. **Tang, H**., X.D. Zhang* & B. Huang, A case study of ordering policy with mass customization, ***Proceedings - 2014 7th International Joint Conference on Computational Sciences and Optimization*** (EI)***, CSO 2014***, p 172-176, October 14, 2014.
19. **Tang, H**. & B. Huang, Study of EOQ model in deteriorating items with price reduction sale and permissible shortage, ***ICEMSI 2013 - 2013 International Conference on Engineering, Management Science and Innovation (EI),*** September 30, 2014
20. **Tang, H**. & Eugene Levner*, Exact and approximation algorithms of scheduling in evacuation and recovery service, ***ICEMSI 2013 - 2013 International Conference on Engineering, Management Science and Innovation (EI)***, September 30, 2014
21. **Tang, H**. & B. Huang, Analysis of an EOQ model in non-instantaneous deteriorating items, ***Proceedings of 2013 International Conference on Computers and Industrial Engineering (EI),*** CIE, v1, p 278-290, Hong Kong, 2013.
22. **Tang, H**., X.L. Xu, B. Huang, Evaluation on Bus Rapid Transit in Macau Based on Congestion and Emission Reduction, ***the proceedings of 2012 International Conference on Low-carbon Transportation and Logistics, and Green Buildings (EI),*** Beijing, China, 2012.
23. X.L. Xu, **Tang, H**., C. Pang, Optimizing the population of free shuttle buses in Macau**",** ***Proceedings-4th International Joint Conference on Computational Sciences and Optimization (EI),*** pp: 1300-1303, Kunming, China, 2011.

Research Projects

2024-2025	Joint Decisions of Pricing and Emission Reduction in Competitive Supply Chains under Carbon Emission Policy (PI)
2021-2023	Supply Chain Financing and Contract Coordination of Supply Chain Members in GBA(PI)
2020-2022	Study and Application of Traceability Management System in Cross-border Logistics based on Block chain technology (Co-PI)

2019-2020	Study of Revenue Sharing in E-commerce Logistics Service Supply Chain with
2018-2019	Cooperative Distribution (PI)
2016-2017	Study of Residents' Attitudes Toward Sustainable Tourism in Macau (PI)
2014 –2016	Study of Emergency Evacuation in Macau Based on Simulation Optimization (PI)
	Asymptotically Stable Supervisor Synthesis and Optimization of Discrete Event
	Systems Modeled with Petri Nets (Co-PI)
2012 – 2013	Study of Evacuation Scheduling in Macau (PI)
2010 – 2011	Study on the Optimal Operation of Free Bus Shuttles in Macau (PI)

Other Professional Activities/ Honors/Awards.

2024-Present	Fellow (CILT)
2014-2023	Chartered Member, CILT Macao
2021-Present	Panel Member, CILT Program Accreditation
2020-Present	Associate Editor, International Journal of Shipping and Transport Logistics (SSCI)

Macau University of Science and Technology "Cloud Classroom Teaching Excellence Award" (2020)

Prize Two of Teaching Achievement Award in MUST (2020)