

Akshay Mutha

The University of Vermont
BSAD-Business Analytics
(802) 656-0495
Email: akshay.mutha@uvm.edu

Education

- Ph D, Pennsylvania State University, 2018.
Major: Business Administration
Supporting Areas of Emphasis: Supply Chain & Information Systems
Dissertation Title: Essays in Product Acquisition in Closed Loop Supply Chains
- MS, Nanyang Technological University, 2008.
Major: Supply Chain Management
Dissertation Title: Strategic Network Design for Reverse Logistics
- BSE, Government College of Engineering, 2004.
Major: Production Engineering

RESEARCH

Research Publications

Refereed Journal Articles

- Mutha, A., Bansal, S. (2023). Determining Assortments of Used Products for B2B Transactions in Reverse Supply Chain. *IIE Transactions*, 55(10), 1035-1048.
- Mutha, A., Bansal, S., Guide, V. Daniel R. (2022). What Servicizing Demands of a Company: The Need for Inter-Functional Coordination. *Journal of Operations Management*, 68(4), 408-420.
- Mutha, A., Bansal, S., Guide, V. Daniel R. (2021). ReCellular Inc: Managing Demand Uncertainty By Quality Diversification in Closed-Loop Remanufacturing. *INFORMS Transactions on Education*.
- Mutha, A., Bansal, S., Guide, V. Daniel R. (2021). Managing the inter-functional tension between accounting- and financial-profits in remanufacturing multiple-usecycle products. *Production and Operations Management*.
- Mutha, A., Pokharel, S. (2009). Strategic network design for reverse logistics and remanufacturing using new and old product modules. *Computers and Industrial Engineering*, 56, 334-346.

Journal Articles

- Petropoulos, F., Laporte, G., Mutha, A. (2024). Operational Research: Methods and Applications. *Journal of the Operational Research Society*, 75(3), 423-617.
- Mutha, A., Bansal, S., Guide, V. Daniel R. Selling assortments of used products to third-party remanufacturers. *Production and Operations Management*, 28(7), 1792-1817.
- Mutha, A., Bansal, S., Guide, V. Daniel R. (2016). Managing demand uncertainty through core acquisition in remanufacturing. *Production and Operations Management*, 25, 1449-1464.

Presentations Given

- Mutha, A. (Author), Palsule-Desai, O. (Author), Brahma, K. P. (Author), Guide, V. Daniel R. (Author), ISA 2026, "Apparel Closed-Loop Supply Chains," District Of Columbia, United States. (June 4, 2026).
- Mutha, A. (Author), Palsule-Desai, O. (Author), Brahma, K. P. (Author), Guide, V. Daniel R. (Author), POMS 2026, "Apparel Closed-Loop Supply Chains," Reno, Nevada, United States. (May 11, 2026).
- Mutha, A., Vermont Manufacturing Summit, "The Future of Manufacturing: Closed-loop Supply Chains and Remanufacturing Operations," Vermont Chamber of Commerce, Burlington, Vermont, United States. (November 19, 2025).
- Li, Z. (Author), Mutha, A. (Author & Presenter), Ryan, J. (Author), Sun, D. (Author), INFORM 2025, "Products Acquisition for Remanufacturing," Atlanta, Georgia, United States. (October 29, 2025).
- Mutha, A., Case Analysis & Business Research, "Closed-loop Supply Chains and Remanufacturing Operations: An Overview," Burlington, Vermont, United States. (October 22, 2025).
- Li, Z. (Author), Mutha, A. (Author & Presenter), Ryan, J. (Author), Sun, D. (Author), POMS 2025, "Products Acquisition for Remanufacturing," Atlanta, Georgia, United States. (May 10, 2025).
- Li, Z. (Author), Mutha, A. (Author & Presenter), Ryan, J. (Author), Sun, D. (Author), INFORM 2024, "Products Acquisition for Remanufacturing," Seattle, Washington, United States. (October 22, 2024).
- Li, Z. (Author), Mutha, A. (Author & Presenter), Ryan, J. (Author), Sun, D. (Author), POMS 2024, "Products Acquisition for Remanufacturing," Minneapolis, Minnesota, United States. (April 26, 2024).
- Mutha, A. (Author & Presenter), Bansal, S. (Author), POMS 2023, "Acquisition of Used Products for Remanufacturing," Orlando, Florida, United States. (May 22, 2023).
- Mutha, A. (Author & Presenter), Bansal, S. (Author), INFORMS 2022, "Acquisition of Used Products for Remanufacturing," Indianapolis, Indiana, United States. (October 18, 2022).
- Mutha, A. (Author & Presenter), Bansal, S. (Author), POMS 2022 (online), "Acquisition of Used Products for Remanufacturing," United States. (April 22, 2022).
- Mutha, A. (Author & Presenter), Bansal, S. (Author), INFORMS 2021 (online), "Acquisition of Used Products for Remanufacturing," United States. (October 25, 2021).
- Mutha, A. (Author & Presenter), Bansal, S. (Author), POMS 2021 (online), "Acquisition of Used Products for Remanufacturing," United States. (May 2, 2021).
- Mutha, A. (Author & Presenter), Bansal, S. (Author), INFORMS 2020 (online), "Acquisition of Used Products for Remanufacturing," United States. (November 9, 2020).
- Mutha, A. (Author & Presenter), Bansal, S. (Author), Guide, V. Daniel R. (Author), INFORMS 2019, "Evaluating Profitability of Remanufacturing Operations," Seattle, Washington, United States. (October 23, 2019).

Mutha, A. (Author & Presenter), Bansal, S. (Author), Guide, V. Daniel R. (Author), POMS 2019, "Evaluating Profitability of Remanufacturing Operations," Washington, District Of Columbia, United States. (May 4, 2019).

Mutha, A. (Author & Presenter), Bansal, S. (Author), Guide, V. Daniel R. (Author), POMS 2019, "Pricing models in remanufacturing," Washington, District Of Columbia, United States. (May 4, 2019).

Mutha, A. (Author & Presenter), Bansal, S. (Author), Guide, V. Daniel R. (Author), INFORMS 2018, "Evaluating Profitability of Remanufacturing Operations," Phoenix, Arizona, United States. (November 6, 2018).

Mutha, A. (Author & Presenter), Bansal, S. (Author), Guide, V. Daniel R. (Author), POMS 2018, "Pricing models in remanufacturing," Houston, Texas, United States. (May 5, 2018).

Mutha, A. (Author & Presenter), Bansal, S. (Author), Guide, V. Daniel R. (Author), POMS 2018, "Evaluating Profitability of Remanufacturing Operations," Houston, Texas, United States. (May 4, 2018).

Mutha, A. (Author & Presenter), Bansal, S. (Author), Guide, V. Daniel R. (Author), INFORMS 2017, "Pricing models in remanufacturing," Houston, Texas, United States. (October 24, 2017).

Research Currently in Progress

"Apparel Supply Chains: Transitioning from a Linear to a Closed-loop Model" (On-Going).
Current Status: under review at *Production and Operations Management* (FT 50, ABS4, GSB Top-Tier).

We describe the challenges and barriers in establishing an apparel closed-loop supply chain. We also identify research opportunities in the operations management domain.

"Case Study - Casella Waste Management".

"Case Study - Curtis Packaging".

"Contracting of semi-finished inventories under information asymmetry" (Writing Results).
Current Status: We are preparing to submit this paper to *Manufacturing & Service Operations Management* (FT 50, ABS4, GSB Top-tier).

This paper was rejected in the second round at *Production and Operations Management* in December 2025. Given the substantial revision, the DE has encouraged us to consider submitting the paper to *MSOM*. We are currently re-positioning the paper for a mainstream manufacturing setting. This paper analyzes the contracting mechanisms between a supplier of semi-finished inventories (i.e., units at different stages of completion) and manufacturers who use these units to produce different end products.

"Market segmentation using remanufacturing" (Writing Results).
Current Status: Analysis done. Writing.
We spend the last year in refining our analytical results and identifying the correct positioning. We are now 'writing' the paper. This paper analyzes a firm's decision on whether to replace (i.e. upgrade) or remanufacture a (capital-intensive) product for a customer. We identify conditions under which it is optimal for the firm to offer lower-efficiency products in the market which enables market-segmentation opportunities.

"Mechanism design under asymmetric information regarding demand for remanufactured products." (Writing Results).

Current Status: under review at *Decision Sciences* (ABS3, GSB Top-tier).

History: This paper was rejected at *MSOM* (Summer 2022) and in the second-round at *POM* (December 2025)

This paper analyzes the adverse selection problem between two entities in remanufacturing operations. We analyze the information revelation mechanisms involved in trading used products for remanufacturing.

"Understanding the levers of textile recycling" (On-Going).

Current Status: Writing results.

We formulate an analytical model to analyze the different levers (e.g. prices, production cost, blending cost, and blending percentage) in textile recycling. We have empirical data from a large apparel contract manufacturer on their manufacturing processes involving recycled materials (fibers).

Contracts, Grants and Sponsored Research

Grant

Mutha, A. (Contributor), "Food Syst Plant-based Protein," Sponsored by FSRI, The University of Vermont, \$29,259.83.

Mutha, A., "Circular Supply Chains Accelerator," Sponsored by Department of Energy, Federal.

TEACHING

Teaching Experience

The University of Vermont

BSAD 030, Decision Analysis, 11 courses.

BSAD 173, Operations Management, 12 courses.

BSAD 299, Business Admin Honors Thesis, 2 courses.

BUS 2130, Decision Analysis, 4 courses.

BUS 2700, Operations Management, 8 courses.

Awards and Honors

2019 Kroepsch-Maurice Excellence in Teaching Award, UVM. (November 8, 2019).

SERVICE

Service to Academic Community

Committee Member, Lecturer Search. (February 2026 - May 2026).

Committee Member, Dean's Faculty Research Award. (March 2023 - May 2025).

Committee Member, Assurance of Learning. (September 2022 - May 2024).

Committee Member, Dean's Staff Excellence Award. (March 2023 - May 2023).

Committee Member, Accounting Lecturer Search. (January 2023 - May 2023).

Committee Member, Graduate Program Redesign (Ad-hoc). (January 2023 - May 2023).

University Service including GSB

Committee Member, Kroepsch-Maurice Excellence in Teaching Awards Review Standing Committee. (September 2025 - May 2027).

Committee Member, Faculty Senate Student Affairs Committee. (January 1, 2022 - May 15, 2022).

Committee Member, Navigate Advisory Committee. (October 2019 - May 2020).

Professional Service

Editorial Review Board Member, Decision Sciences. (July 1, 2023 - June 30, 2027).

Editorial Review Board Member, Production and Operations Management. (July 1, 2024 - June 30, 2026).

Reviewer, Journal Article, IISE Transactions. (April 7, 2025 - February 19, 2026).

Reviewer, Journal Article, Manufacturing and Service Operations Management. (June 30, 2025 - August 4, 2025).

Reviewer, Journal Article, Production and Operations Management. (May 27, 2025 - July 18, 2025).

Editorial Review Board Member, Decision Sciences. (July 1, 2023 - June 30, 2025).

Reviewer, Journal Article, Production and Operations Management. (May 17, 2024 - January 3, 2025).

Workshop Organizer, Business Aspects of Closed-Loop Supply Chains (20th) – The Building Blocks of a Circular Economy, State College, Pennsylvania. (November 16, 2024).

Reviewer, Journal Article, Manufacturing and Service Operations Management. (March 30, 2023 - September 18, 2024).

Reviewer, Journal Article, Production and Operations Management. (March 30, 2023 - January 16, 2024).

Reviewer, Journal Article, Decision Sciences. (September 27, 2023 - November 15, 2023).

Reviewer, Journal Article, Journal of Operations Management. (September 5, 2023 - March 13, 2023).

Reviewer, Journal Article, IISE Transactions. (July 19, 2022 - September 13, 2022).

Reviewer, Journal Article, Production and Operations Management. (October 1, 2021 - February 15, 2022).

Reviewer, Journal Article, IISE Transactions. (December 13, 2020 - January 24, 2022).

Reviewer, Journal Article, International Journal of Production Economics. (October 10, 2021 - December 10, 2021).

Session Chair, 2021 Annual Production and Operations Management Society Conference (Online). (April 30, 2021 - May 5, 2021).

Reviewer, Journal Article, International Journal of Production Economics. (November 1, 2020 - January 15, 2021).

Reviewer, Journal Article, Production and Operations Management. (April 1, 2020 - January 15, 2021).

Reviewer, Journal Article, Computers & Operations Research. (April 1, 2020 - June 15, 2020).

Reviewer, Journal Article, Decision Sciences. (January 15, 2020 - March 15, 2020).

Reviewer, Journal Article, Production and Operations Management. (July 1, 2019 - March 15, 2020).

Reviewer, Journal Article, International Journal of Sustainable Transportation. (November 12, 2019 - January 15, 2020).

Judge for the 2019 POMS College of Sustainable Operations Student Paper Competition, Production and Operations Management Society. (February 1, 2019 - March 1, 2019).

Reviewer, Journal Article, Production and Operations Management. (July 1, 2017 - February 15, 2019).

Reviewer, Journal Article, Decision Sciences. (August 1, 2018 - December 1, 2018).

Session Chair, 2018 Annual Production and Operations Management Society Conference. (May 4, 2018 - May 7, 2018).