

Muhammad Omar Al-Zadid

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Education

Washington State University *PhD, Operations & Management Science* 2027 (Expected)

Dissertation: Optimal Multi-Item Business Volume Discount Strategies for Sellers

Dissertation Chair: Charles L. Munson, PhD

Washington State University *MSBA, Operations & Management Science* 2026 (Expected)

Washington State University *MS, Statistics* 2026

Project: Probabilistic Forecasting of Intermittent Demand Using Natural Gradient Boosting

University of Dhaka *MBA, Marketing* 2017

University of Dhaka *BBA, Marketing* 2015

Research Interests

Supply Chain Coordination; Machine Learning for Forecasting and Predictive Analytics; Online Learning for Revenue Management; Perishable Goods Supply Chains; Process Improvement Projects.

Journal Publications

Khanam, F., Al-Zadid, M. O., & Ullah, M. (2022). Measuring the quality of higher education in Bangladesh: A study on the university of Dhaka. *International Journal of Knowledge-Based Organizations (IJKBO)*, 12(1), 1-15. DOI: 10.4018/IJKBO.291688.

Works Under Review

Almutairi, T., Al-Zadid, M. O., Baker, T., and Xu, X. (Under review) A Synthesis of Action Research with Emergent Theory Building: New Themes for Managing Project Context. Under review at *International Journal of Lean Six Sigma*.

Al-Zadid, M. O. (Under review) Forecasting manufacturing capacity utilization: the relative value of operational variables and external risk indicators. Under review at *International Journal of Data Analysis Techniques & Strategies*.

Book Chapters

Khanam, F., Al-Zadid, M. O., & Ullah, M. (2023). Usage of the Basic Facebook Features as Befitting Marketing Tools. In *Encyclopedia of Data Science and Machine Learning* (pp. 2918-2934). IGI Global Scientific Publishing. DOI: 10.4018/978-1-7998-9220-5.ch174.

Khanam, F., Ullah, M., & Al-Zadid, M. O. (2023). Factors Shaping the Patterns of Online Shopping Behavior. In *Encyclopedia of Data Science and Machine Learning* (pp. 1127-1142). IGI Global Scientific Publishing. DOI: 10.4018/978-1-7998-9220-5.ch065.

Working Papers

Al-Zadid, M. O. and Wang, Y. Probabilistic Forecasting of Intermittent Demand Using Natural Gradient Boosting.

Works in Progress

Optimal Multi-Item Business Volume Discount Strategies for Sellers

(with Charles L. Munson)

Remaining Shelf-Life Estimation of Cherries in the Cold Supply Chain

(with Smit Patel and Charles L. Munson)

Practicing Contract Negotiations with AI

(with Charles L. Munson and Jonathan Jackson)

An Empirical Test of Six Sigma Best Practice Theory

(with Tim Baker)

Bid-Price-Consistent Bandit Pricing for LOS Networks: Two-Time-Scale Learning with Constrained Projection

(with Aysajan Eziz)

Data-Light, Network-Aware Hotel Pricing: Doubly-Robust Backtesting and Night-Level Switchback Experiments

(with Aysajan Eziz)

Conference Proceedings

Al-Zadid, M. O. and Wang, Y. (Accepted). Probabilistic Forecasting of Intermittent Demand Using Natural Gradient Boosting. *Decision Sciences Institute 2026 Annual Proceeding*, San Francisco, CA.

Conference Presentations

Probabilistic Forecasting of Intermittent Demand Using Natural Gradient Boosting, with Yuan Wang, *Decision Sciences Institute Annual Conference*, San Francisco, November 2026.

Practicing Contract Negotiations with AI*, with Charles L. Munson and Jonathan Jackson, *DSI Annual Conference*, San Francisco, November 2026.

Optimal Multi-Item Business Volume Discount Strategies for Sellers, with Charles L. Munson, *INFORMS Annual Meeting*, San Francisco, November 2026.

Bid-Price-Consistent Bandit Pricing for LOS Networks: Two-Time-Scale Learning with Constrained Projection*, with Aysajan Eziz, *POMS Annual Conference*, Invited Session, Reno, May 2026.

An Empirical Test of Six Sigma Best Practice Theory, with Tim Baker, *POMS Annual Conference*, Reno, May 2026.

Transformer-Based Methods for Intermittent Demand Forecasting, *POMS Annual Conference*, Reno, May 2026.

Forecasting Manufacturing Inefficiencies with External Risk Indicators and Data-Driven Modeling, *INFORMS Annual Meeting*, Atlanta, October 2025.

* Presentation by a co-author

Other Research Experience

Research Assistant	2021
<i>Exploring the Adoption and Use of Smartphone Technology by University Students</i> (with Nayem Rahman), Dhaka, Bangladesh	
Research Assistant, Fieldwork	2016
<i>Analyzing Pro-environmental Consumer Behavior</i> (with Saadia Shabnam), Dhaka, Bangladesh	

Teaching Interests

Operations Management; Supply Chain Management; Business Analytics; Business Statistics; Decision Analysis; Data Visualization.

Teaching Experience

Operations Management – MGTOP 340	Fall 2026
<i>Enrollment: 70</i>	
Management of operations, emphasizing production planning, inventory control, scheduling, forecasting, quality management, supply chain management, and facility layout and location.	
Business Statistics – MGTOP 215	Fall 2025
<i>Enrollment: 90</i>	
Data presentation, probability, distributions, inferences, and linear regression as applied to business and economics.	
Spreadsheets, Data Visualization, and Decision Analysis – B_A 212	Fall 2024
<i>Enrollment: 39</i>	
Spreadsheets for data analysis and to support decision-making; principles and techniques of data visualization; communicating data-based results effectively; skeptical interpretation of visually represented findings in decision-making; techniques for making informed and logical decisions in a business context using spreadsheets.	
Business Statistics – MGTOP 215 (Lab Instructor)	Fall 2023
Teaching three 2-hour labs per week covering quantitative problem-solving using Excel in probability, probability distributions, statistical inference, and linear regression, with applications to business and economics.	

Teaching Assistant Experience

Operations Management – MGTOP 340 (Teaching Assistant)	Fall 2026, Spring 2026, Spring 2025, Spring 2024
Spreadsheets, Data Visualization, and Decision Analysis – B_A 212 (Teaching Assistant)	Spring 2025, Spring 2023, Fall 2022

Professional Experience

Senior Officer: Credit Operations & Foreign Trade	2018 – 2022
<i>Bank Asia PLC</i>	Dhaka, Bangladesh

Academic Service & Community Engagement

Session Chair

INFORMS, Session: Job Market Showcase	Nov 2026
POMS, Session: Studies in Process Improvement and Project Management	2026
POMS, Session: Forecasting & Supply Chain Analytics	2026

Reviewer

DSI Annual Conference	2026
NEDSI Annual Conference	2026
AOM Annual Meeting	2026

Organizer

INFORMS Education Outreach Committee, Virtual and In-Person Sessions	2025–Present
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Volunteer

POMS Annual Conference, Registration and Schedules	2026
Carson College Undergraduate Scholarship Applications Review	2026
Carson College of Business Graduation Ceremony	2023

Participant

Workshop – AI in the Classroom and in Research, Carson College of Business	2026
College of Supply Chain Management Mini-Conference, POMS, Atlanta	2025
Doctoral Consortium, POMS, Atlanta	2025

Honors & Awards

Roderick W Church PhD Fellowship <i>Washington State University</i> <i>Amount: \$2,500.00</i>	2026
Merit-based Scholarship <i>University of Dhaka, Bangladesh</i> <i>For academic excellence in the Bachelor of Business Administration Program</i>	2016
Ptak Prize Scholarship <i>International Supply Chain Education Alliance (ISCEA)</i> <i>For leadership in global supply chain understanding among youth</i>	2013

Professional Memberships & Affiliations

Institute for Operations Research and the Management Sciences (INFORMS)
Decision Sciences Institute (DSI)
Production & Operations Management Society (POMS)

Technical Skills

Statistical Analysis: Python, R, SAS, SPSS, Excel
Optimization: MATLAB, AMPL, Excel
Database Management: SQL, Excel
Data Visualization: Tableau, Excel
VBA Programming: Excel
Typesetting: LaTeX