

DR. MOHAMMAD E. ARBABIAN, Ph.D.

Supply Chain Resilience & Operational Damages Expert Witness

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Expert Profile

Dr. Mohammad Arbabian is an operations and supply-chain scholar whose work focuses on inventory systems, supplier capacity, additive manufacturing, capacity expansion, and supply-chain coordination. He helps attorneys evaluate whether alleged supply-chain failures, delays, shortages, sourcing decisions, or operational constraints caused measurable business damages.

Positioning: a clear, analytically grounded expert for disputes involving supply-chain performance, operational feasibility, inventory shortages, lead-time delays, allocation decisions, and lost-profit analysis.

Best-Fit Matters

- Commercial contract disputes involving late delivery, missed KPIs, shortages, allocation, or supplier nonperformance.
- Lost-profit and increased-cost damages caused by inventory stockouts, lead-time variability, capacity limits, or sourcing disruptions.
- Manufacturing, distribution, retail, and technology supply-chain disputes where operational decisions must be linked to financial outcomes.
- Additive manufacturing / 3D-printing disputes involving make-vs-buy decisions, spare parts, decentralized production, and production economics.
- Operational cost and compliance-impact analysis in supply-chain and production settings.

Representative Analytical Capabilities

- Inventory and lead-time analysis
- Capacity and bottleneck analysis
- Sourcing and supplier-performance evaluation
- Operational analysis supporting lost-profit and increased-cost damages
- Operational rebuttal of opposing expert assumptions

Engagement Options

Case screening and early merit review | Document and data review | Operational and damages modeling | Expert reports, declarations, deposition, and trial testimony as appropriate | Rebuttal of opposing expert reports

Introductory consultation available for attorneys evaluating supply-chain, operations, or damages issues.

Core Expertise

- Supply-chain resilience
- Inventory systems
- Supplier capacity uncertainty
- Additive manufacturing economics
- Capacity expansion
- Forecasting and demand analytics
- Operations damages and lost profits

Credentials

- Ph.D., Operations Management, University of Washington
- Associate Professor, University of Portland
- Published in MSOM, EJOR, IJPE, OMR, Production Planning & Control
- Reviewer for EJOR, IJPE, POM, OMR, CIE
- Courses: Supply Chain Analytics, Decision Modeling, Operations Management, Forecasting in R, Quality Control, Process Analysis, Contract Theory

Selected Publications

- Supply Chain Coordination via Additive Manufacturing, IJPE, 2022.
- Impact of 3D Printing on Manufacturer–Retailer Supply Chains, EJOR, 2020.
- Capacity Expansion with a Bundled Supply of Attributes, MSOM, 2021.
- Inventory Systems with Uncertain Supplier Capacity, OMR, 2023.
- Virgin or Recycled Powder for AM Spare Parts, Production Planning & Control, 2026.