

# Group Decision Making in Supply Chain Contracting

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## Abstract

In this study we present the results of a laboratory decision making experiment. We base our experiment on a simple manufacturer-retailer scenario where the consumer demand is random and revenue sharing contract is used. The experiment is based on a 2x2 between-subjects design. Subject either make retailer decisions, or manufacturer decisions and either make these decisions as individuals or in groups of three. Subjects undertaking the role of the retailer make ordering decisions against predetermined combinations of wholesale price and revenue share values. Subjects undertaking the role of the manufacturer, make contract parameter decisions against the computer program which orders the optimal quantity corresponding to the manufacturers' contract parameters. We analyze how group decisions compare to individual decisions in terms of supply chain contract and order quantity decisions. Additionally, we investigate how gender composition of the groups affect experiment performance.

## Keywords

Group Decision Making, Behavioral Operations, Supply Chain Management, Revenue Sharing Contract, Gender Differences

## Biography

**Ümmühan Akbay** is an Assistant Professor at department of Management in Işık University, İstanbul, Turkey. She received her Ph.D. in Industrial Engineering from Sabancı University. She holds an M.Phil degree in Operations Research from Columbia University Graduate School of Business and a B.Sc. degree in Industrial Engineering from Bilkent University. She was a visiting professor at the Industrial Engineering program, Özyeğin University between 2017-2020. Her research interests include behavioral operations management, behavioral and experimental economics, supply chain management, game theory, decision analysis, energy markets, healthcare operations management and revenue management.