Supply Chain Contracts
Thursday 3 July (3.30-5pm)

Bergey, Paul K.

COORDINATION OF A THREE-TIER SUPPLY CHAIN USING OPTION CONTRACTS

In this research, we examine the impact of put and call options contracts on supply chain member profits under stochastic supply and demand conditions for a three-player supply chain. Our findings show that supply chain coordination using option contracts is sensitive to demand trends. The managerial implications of this finding are that supply chains must lean forward (use call options) in growth markets, lean backward (use put options) in declining markets, and stand upright (balanced put vs. call) at potential turning points. This coordinated leaning can be operationalized through the use of multi-party options contracts.

Keywords: Options Contracts, Supply Chain Coordination

Qian, Xiaoyan and Olsen, Tava

CONTRACTUAL COORDINATION OF AGRICULTURAL COOPERATIVES WITH QUALITY-RELATED EFFORT

One transformation adopted by agricultural marketing cooperatives in response to food safety concerns and global competition is to propose quality requirements in the contract with their farmers. This paper explores a contract mechanism designed by a co-op to encourage farmers to exert effort to improve quality levels under asymmetric information, where the productivity of farmers is their own private knowledge. A principal-agent theoretical model is proposed to give insights on how the co-op determines quality requirements and its quality premium and how incomplete information affects the efficiency of contract. We assume that the co-op is a price-maker for its high-quality product while a price-taker for the low-quality product.

Keywords: Supply chain contract, quality requirement, co-operative

Shao, Lusheng

COMMIT TO SOLE-SOURCING OR NOT? SUPPLIER COMPETITION WITH SPLIT CONTRACT AND SUBCONTRACTING

We consider a supply chain with two suppliers competing for a common buyer's purchase business. Two procurement mechanisms are studied: (1) Splitting Mechanism where the suppliers each bid a supply function which specifies different payments for different quantities and the buyer may split her order; (2) Commitment Mechanism where the buyer commits to sole-sourcing before bidding and the winning supplier can subcontract with the losing supplier after bidding. We characterize equilibrium for each mechanism and make a comparison between them. This paper sheds light on whether a buyer should commit to sole-sourcing when designing her sourcing strategy.

Keywords: Split contract; Subcontracting; Supplier competition; Sole-sourcing

Hendricks, Kevin B.; Hora, Manpreet and Singhal, Vinod R.

AN EMPIRICAL INVESTIGATION ON THE CHOICES OF SUPPLY CHAIN AND OPERATIONS MANAGEMENT EXECUTIVES

This paper provides empirical evidence on the performance effects and choice of appointments of Supply Chain and Operations Management Executives (SCOMEs). The analysis is based on a sample of 681
SCOME appointments that are publicly announced during 2000-2011 period. We find that the stock market reaction is positive on the day of the announcement. The market reaction for newly created SCOME positions is positive, and when a SCOME is an outsider rather than an insider. The strongest positive reaction is observed when outsiders are hired for newly created SCOME positions. We also find that the likelihood of a SCOME being an outsider is greater for firms that are smaller, operate in more concentrated industries, and have experienced poor prior performance.

Keywords: Stock market reaction, Chief supply chain officer, Supply chain and operations management