

Title:

Win-Win Capacity Allocation Contracts in Co-Production and Co-Distribution Alliance*

Speaker: Christopher S. Tang, Carter Professor of Business Administration, UCLA Anderson School

Abstract:

In some strategic alliances, a firm shares its manufacturing capacity with another, and the latter shares its distribution capacity with the former. Even though such bidirectional alliances have become more common, they remain challenging to manage due to the frequent disputes over capacity allocation especially when demand is uncertain. In this paper, we investigate whether there exists a contractual mechanism that can mitigate the extent of these disputes while improving the profits of all participating firms. We consider two types of bidirectional contracts, namely, the ex-post transfer payment contract and the ex-ante capacity reservation contract. By modeling the capacity allocation and the bidirectional contract design as a non-cooperative game between two firms with non-competing product lines, we show that, relative to a situation where capacity allocation is freely negotiated, either contract can improve the alliance's total profit in equilibrium. In terms of distribution of the total surplus, we find that capacity reservation contracts always make both firms better off, whereas ex-post transfer payment contracts may make one firm worse off. Hence, capacity reservation contracts are more likely to be implemented in practice in such bidirectional alliances.

*Joint work with Guillaume Roels