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Relative Power in Supply Chains – Impact on Channel Efficiency & Contract Design

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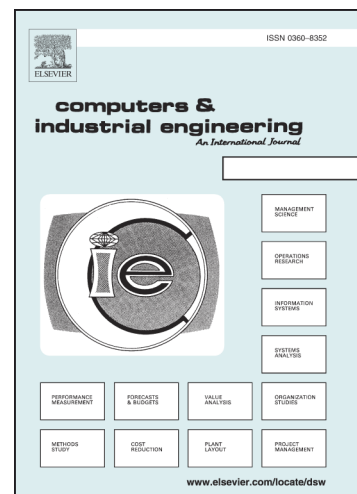
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**Relative Power in Supply Chains – Impact on Channel Efficiency
& Contract Design**

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Abstract

The performance of a supply chain is often characterized by the power of decision making of the partners involved. Various decisions taken by different partners influence the overall profit of the chain and hence affect the channel efficiency. In this paper we have considered a two-echelon supply chain where the final demand depends upon both the retail price and the marketing expenses borne by the partners. Both the manufacturer and the retailer have been examined as the Stackelberg leader alternately. Profitability increases for the follower, while the leader suffers on account of being the Stackelberg leader. We have also shown that under these circumstances, both the wholesale price as well as the revenue sharing contract fails to coordinate the supply chain. We develop a hybrid revenue and cost sharing contract that coordinates the supply chain thereby making the chain fully efficient.

Keywords: Supply chain coordination; Stackelberg game; marketing expenses; channel efficiency; revenue sharing contract

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