

November 9th, 2015
KAP 414
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“Supply Chain Finance: The Operational Benefits”

Abstract: Supply Chain Finance (SCF) has been widely used in practice. SCF focuses on core enterprises in large supply chains and provides them with unique financial benefits: improved on-book financial performances and affordable finance to their small supply chain partners. However, little is known about the SCF benefits on the operational side. We intend to discover such important benefits by analyzing how SCF affects the operational decision-making in a supply chain. We use Difference Repurchase (DR) and Reverse Difference Repurchase (RDR) contracts as an example of SCF---buyer finance and apply them to a Newsvendor model. We compare SCF to Trade Credit (TC) to investigate the operational benefits of SCF in terms of information (credit risk and default risk) and inventory. We find that the supplier should apply SCF only to some retailers and thus differentiate the retailers according to their credit risk and default risk. Common sense is that the supplier should finance the low risk retailers by itself and other (risky) retailers by SCF. Interestingly, we find that the supplier should finance by itself retailers with low credit risk, but high default risk. Retailers with a higher default risk are more likely to pay a price less than the wholesale price (profit-margin disadvantage), and thus will order more (quantity benefit). Further, when selling to retailers with high default risk, the supplier's ``quantity benefit" outweighs its ``profit-margin disadvantage" and thus the supplier would prefer to finance such risky retailers by itself. We provide the industry with an important additional layer of SCF benefit and practical guideline on who to apply SCF.