Fee-For-Service Contracts in the Pharmaceutical Industry  
(Extended Abstract)  
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Starting from 2005, the pharmaceutical industry has experienced a drastic change in the pricing contracts between manufacturers and distributors as the industry moved from the dominating Buy-and-Hold contract to the current Fee-for-Service (FFS) contract. The change is driven by the new government regulations which restrict the distributors’ forward-buy inventory. Under the FFS contract, distributors charge a fee for their services which were provided free. The effectiveness of the current FFS contract remains unclear and unquantified. Emerging competition from logistics service providers, along with criticism to the current FFS contract opens the door for new pricing contracts that mutually benefit all parties involved while complying with the government regulations.

This paper proposes a FFS leasing contract as an alternative to the current FFS contract to resolve the issues associated with the buy-and-hold contract for brand drugs. The FFS leasing contract differs from the current FFS contract in that the ownership of the brand drug is maintained by the manufacturer. The money flow throughout the entire supply chain is also different in the FFS leasing contract as the manufacturer – rather than the distributor – receives payment from the retailer. The FFS leasing contract resembles those implemented by logistics service providers, and thus is practical and implementable in the business world.

We use model-based mathematical approach to analyze the effective production-inventory policies under these contracts which reveal the behavior of the manufacturer and distributor under each contractual agreement. We consider both predictable and unpredictable demand and show that the FFS leasing contract is more beneficial than the current FFS contract or the previous Buy-and-Hold contract for the distributor, the manufacturer and the supply chain as a whole. The FFS leasing contract outperforms the other two contractual agreements because it reduces the distributor’s inventory and smoothes the demand for the manufacturer. Through real-world data we quantify the difference between the contracts. Finally, we discuss implementation issues other than financial gain/loss.