

グローバルグリーンサプライチェーンマネジメント(GGSCM)研究セミナー  
社会システムイノベーションセンター、SESAMI プログラム共催  
先端融合研究環システム構築戦略研究チーム協賛

1. 日時:2016 年 12 月 5 日(月)15:10~16:40
2. 会場:神戸大学六甲台キャンパス 中会議室(第三学舎 1F 東)
3. 報告者:Professor Suresh P. Sethi  
Eugene McDermott Chair of Operations Management, Naveen Jindal School of Management, The University of Texas at Dallas
4. 論題:Feedback Stackelberg Games for Dynamic Supply Chains with Cost Learning



5. アブストラクト:

We consider a decentralized two-period supply chain in which a manufacturer produces a product with benefits of cost learning, and sells it through a retailer facing a price-dependent demand. The manufacturer's second-period production cost declines linearly in the first-period production, but with a random learning rate. The manufacturer may or may not have the inventory carryover option. We formulate the resulting problems as two-period Stackelberg games and obtain their feedback equilibrium solutions explicitly. We then examine the impact of mean learning rate and learning rate variability on the pricing strategies of the channel members, on the manufacturer's production decisions, and on the retailer's procurement decisions. We show that as the mean learning rate or the learning rate variability increases, the traditional double marginalization problem becomes more severe, leading to greater efficiency loss in the channel. We obtain revenue sharing contracts that can coordinate the dynamic supply chain. In particular, when the manufacturer may hold inventory, we identify two major drivers for inventory carryover: market growth and learning rate variability. Finally, we demonstrate the robustness of our results by examining a model in which cost learning takes place continuously.

Suresh P. Sethi 教授について

Sethi 教授は、operations management, economics and finance, marketing の分野で、Sethi, S.P. and Thompson, G.L., Optimal Control Theory: Applications to Management Science and Economics, Second Edition, Kluwer Academic Publishers, Boston, 2000 という著書その他、査読付き学術論文を 289 本出版されています。

6. 問合せ先: [sesami@b.kobe-u.ac.jp](mailto:sesami@b.kobe-u.ac.jp) (SESAMI 事務局)

\* ご自由に参加ください。