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Recovery and Remanufacturing Targets Versus Taxation\Subsidy Policies for Product Reuse

Sam AFLAKI and Shumail Mazahir
Department of Operations Management and Information Technology
HEC Paris
Jouy-en-Josas, 78350 France

Abstract

This paper studies the effect of incorporation of recovery and remanufacturing targets on manufacturing firms and comes forth as a first attempt to compare them with incentive schemes such as taxation\subsidy policies. We analyze how the respective prices and demands of a new and remanufactured products, total number of products sold and social welfare change under different policies and obtain conditions where one policy is better than the other.

Keywords
Sustainable Operations, Closed-loop Supply Chain, Recovery Policies

Biography

Sam Aflaki is an Assistant Professor of Operations Management and Information Technology at HEC Paris. He earned his Ph.D. in management from INSEAD. Prior to his Ph.D. studies Sam worked in the energy sector as a management consultant for large oil and gas projects. Sam's current research focuses on sustainable operations management and incentive/contracting mechanisms for sustainability in supply chains, in particular in the energy field. Sam's research has been published in leading management journals including *Management Science* and *POMS Journal*, as well as being recognized in a number of prestigious INFORMS competitions.

Shumail Mazahir is currently a PhD candidate in the area of Operations Management in HEC Paris. His research focuses on closed loop supply chains and reverse logistics. Prior joining HEC, Shumail was a student in Ecole nationale superiuer des Arts et Metiers in France working on knowledge integration in mechanical production.