

The Hong Kong Polytechnic University
Department of Logistics and Maritime Studies
Research Seminar

The Informational Role of Buyback Contracts

by

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The Hong Kong Polytechnic University

(Conducted in English)

Abstract:

Retailers often carry inventory in anticipation of potential demand. To encourage retailers to stock sufficient inventory, upstream manufacturers frequently offer a buyback contract and commit to repurchase the retailer's unsold inventory at a pre-specified returns price. We examine the manufacturer's use of the buyback contract as a signaling instrument when the retailer is less informed than the manufacturer either about the manufacturer's reliability of honoring the buyback commitment (e.g., as in the case of a small and less-established manufacturer), or about its product's demand potential (e.g., as in the case of a large and established manufacturer). While much of prior research has focused on the role of the wholesale price in credibly signaling a manufacturer's demand information, we show how and why the returns clause of a buyback contract plays a more important role in signaling the manufacturer's reliability or demand potential. In fact, not only is the returns price a more efficient signaling device than the wholesale price, but it also alters the direction of signaling distortion in the wholesale price. The buyback contract's signaling mechanism hinges on distorting the retailer's excess (unsold) inventory carried to meet potential demand and consequently, its order quantity. This mechanism results in contrasting design of the contract to signal manufacturer's reliability or demand potential. Nonetheless, in both cases, the returns price is more efficient in limiting the distortion to the retailer's order quantity. Our findings shed some light on the informational role of buyback contracts over and above their oft-studied transactional role.

Bio:

Haresh Gurnani is the Thomas H Davis Chair of Business and Professor of Operations Management at Wake Forest University. He serves as Area Chair and as Program Director of the Undergraduate Mathematical Business program, which is a joint program with the Department of Mathematics and the School of Business. He has previously served as the Benson-Pruitt Professor of Business and Executive Director of the Center for Retail Innovation at Wake Forest University.

Prior to joining Wake Forest University in 2015, Haresh was the Leslie O Barnes Professor in the Department of Management at the School of Business, University of Miami, Coral Gables where he served as Chair of the Management Department and on the University of Miami's Research Council, Graduate Council, and the Provost's Advisory Promotion Board. He also served as Board Member in the Center for Advanced Supply Chain Management in the School of Engineering, and in the Center for Health Sector Management and Policy.

His research and teaching interests are in supply chain & operations management with an interdisciplinary focus related to global supply chain risk management, product innovation and sustainability, sharing economy, retail marketing, and distribution channel design and management. He has received several research and teaching awards, including The William W. Cooper Award for the Best Doctoral Dissertation in the area of Business and Economics, The William Larimer Fellowship, and Richard M. Cyert Fellowship nomination at Carnegie Mellon University, Cowan Faculty Research award at Wake Forest University, the University of Miami Excellence in Teaching nomination, Best Professor of Management award from the World Education Congress, the Michael G. Dale Prize nomination for Teaching and the Franklin Prize for Teaching Excellence at the Hong Kong University of Science and Technology. His research has won awards in 2015 from INFORMS and the Institute of Industrial and Systems Engineers (IISE) for best papers published in *Management Science* and *IIE Transactions*, respectively.

He has served on review panels for the National Science Foundation, the Department of Homeland Security, and is the founding Department Editor at *Production and Operations Management Journal* in the interface area of Operations and Economics, Department Editor in the interface area of Operations and Marketing at *Decision Sciences*, Editorial Board Member at *Journal of Retailing*, and has previously served as Area Editor at *IIE Transactions*. He has served as Vice-President (Publications) and Vice-President (Colleges) for the Production and Operations Management Society. He has co-edited a book on Supply Chain Disruptions: Theory and Practice of Managing Risk, published by Springer-Verlag (London) in 2011. His research publications have been accepted in journals such as *Management Science*, *Marketing Science*, *Journal of Marketing Research*, *Manufacturing and Service Operations Management*, *Production and Operations Management*, *Journal of International Business Studies*, *Naval Research Logistics*, *IIE Transactions*, *Journal of Retailing*, *IEEE Transactions on Semiconductor Manufacturing*, etc.

He has interacted extensively on research and training programs in different industries, including those corporations such as IBM, AT&T, General Motors, Lowes Foods, Covidien, Burger King, Texas Instruments, Volvo, Hanesbrands, Food Lion, INMAR, American Tire Distributors, and Bellomy Research, along with various Asian companies. Haresh received his B.Tech. (Mechanical Engineering) from the Indian Institute of Technology, New Delhi, and the M.S. and Ph.D. from Carnegie Mellon University, Pittsburgh, USA. He is a member of INFORMS, Production and Operations Management Society, the Manufacturing & Service Operations Management Society, and the Council for Supply Chain Management Professionals

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All are welcome!