NYU Stern School of Business
Department of Information, Operations & Management Sciences
OPERATIONS MANAGEMENT RESEARCH SEMINAR

TOPIC: Operational investment and capital structure under asset-based lending
SPEAKER: Vishal Gaur (Cornell)
DATE: Wednesday, April 15, 2015
TIME: 11:00 AM-12:00PM
PLACE: KMC 3-50

ABSTRACT

In this talk, I will present my joint research with Yasin Alan on asset-based lending (ABL). ABL is a method commonly used by banks to firms, in which the borrower firm offers its current assets (we focus on inventory) as collateral for a secured loan. In this paper, we study a single-period game of incomplete information between a business owner and a bank to study the implications of ABL for the operational investment and capital structure of a borrower firm. The bank moves first and offers a menu of loans to maximize its expected profit. Each loan offer is characterized by an interest rate and an inventory advance rate, which gives a credit limit that is increasing in the firm's inventory investment. The owner then decides the inventory level and the mix of debt and equity with which to finance her firm's operations. By analyzing this game, show the value of ABL under both complete and incomplete information. ABL leads to lower interest rates, inventory levels closer to the pure equity optimal solution, lending under more scenarios, and more realistic capital structure outcomes compared to pure interest rate optimization by the bank. Its benefits for the bank are higher under more adverse lending circumstances, such as a riskier borrowing pool, higher demand volatility, or lower inventory salvage value.

BIO

Vishal Gaur's research interests lie in retail operations and supply chain management, including inventory management and linking operations to financial performance. His research uses different types of data sets and models, such as aggregate publicly available firm-level or industry-level data, proprietary transaction-level data from firms, and online consumer browsing data to assess performance, improve demand forecasting, and optimize decision-making. Gaur teaches the MBA core course in operations management and an MBA elective course in retail operations. He has received numerous awards for his research and teaching: the Johnson Faculty Research Award in 2012-13, the Clifford H. Whitcomb Faculty Fellowship in 2010-11, the Johnson Core Faculty Award three times, by the graduating classes of 2015, 2012 and 2008, the Wickham Skinner Early Career Research Accomplishments Award by Production and Operations Management Society (POMS) in 2006, and honorable mention in the George B. Dantzig Dissertation Award Competition in 2001. His co-authored paper "Hedging Inventory Risk Through Market Instruments", published in the journal Manufacturing and Service

Operations Management, received the 2008 Manufacturing and Service Operations Management Best Paper Award. He serves as a department editor for Management Science journal and an associate editor for Manufacturing and Service Operations Management, Operations Research, and Production and Operations Management. Prof. Gaur received his Ph.D. from Wharton, University of Pennsylvania, in 2001, his MBA from the Indian Institute of Management Ahmedabad in 1995, and his BTech from the Indian Institute of Technology Delhi in 1993. Before joining Johnson, he was an assistant professor at NYU Stern School of Business during 2001-07 and a visiting associate professor at Harvard Business School during 2007-08.