

supply chain SOURCE

Managing Operational Risk - Not if, but When...

Ananth Iyer GSCMI Director

The annual Spring GSCM conference focused on Operational Risk in the Global Supply Chain.



Center graduate assistant summaries reviewing each of the conference speaker presentations are contained in this month's newsletter. Here, I will provide some detail regarding my presentation, which is an amalgam of several current research discussions with

Alex Zelikovsky (COO of MyThings).

Academic studies by Professors Hendricks and Singhal suggest that supply chain glitches can have a significant impact on sales growth, costs and inventory levels, in addition to impacting return on assets, return on sales and operating income. In other words, **not being able to react to risk in the supply chain can entail significant financial impact for a significant period in the future.** They also found that it did not matter who in the supply chain was responsible, **the company with the final product responsibility took the hit.** In short, academics have quantifiably verified that how you manage a supply chain matters.

A great example of a supply chain operational risk that had to be managed comes from GAO reports, regarding the performance of the US Coast Guard (USCG) during Hurricane Katrina. USCG rescued over 33,500 people in 10 days – this is equal to the total previous year's rescues! Managing in the face of such disruptions required cross training, standardization of equipment and procedures, the ability to prioritize and deploy quickly, along with adjustments to regular operations to accommodate the surge in demand. Imagine an analogous event in a company – product contamination (think Heparin or ginger), supplier fire (think of the Aisin Seiki fire and its impact on Toyota) – each can require significant supply chain operational risk to be managed quickly.

Talking about Aisin Seiki – this was a supplier that made all the P-valves for Toyota. A fire in their plant destroyed all production capability and shut down Toyota within two days given the

Just-In-Time delivery system in place. What happened next is a great story of managing supply chain risk. Aisin Seiki asked other participants in the Toyota Supply Chain for help and 62 firms responded. Ultimately, over six suppliers, large and small, who had never made P-valves, generated new designs, created their best supply chains and resumed deliveries of over 100 P-valve designs to Toyota within one week of the fire. The flexibility of suppliers, their stake in the success given JIT systems and their collaboration following Toyota's protocols all enabled an incredible supply chain response to this risk.

What do these cases suggest? First, it may be that given the global supply chain, the source of this risk may be anywhere in the world. Second, it may be a given that such risks will have to be managed i.e., it is not if, *but when they will happen.* Third, the goal of the supply chain manager is to equip the supply chain to handle such risks through standardized protocols, flexible facilities, coordinated approaches, effective deployment of information systems and well rehearsed "Plan B" for many possible scenarios. All of these considerations suggest the need for a "Real Option" view of supply chain design and operation.

Both Alex and I have been discussing these issues for several months and we have roped in Roger Stewart (Krannert Finance Faculty), on several occasions, to provide a finance perspective on such issues. We hope, sooner rather than later, to have all of our cases pulled together for dissemination.

I hope that our efforts enable supply chain managers to reframe their tasks in the future as "event managers" with the role of the supply chain being "enabling firm performance."

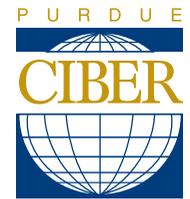
So enjoy the rest of this newsletter, browse the speaker section of the GSCMI web site for Power points and streaming video of the conference event, and lastly, please let us know how we can mutually benefit from our enthusiasm for global supply chain management at Purdue.



Spring 2008

Global Supply Chain Management Conference & Case Competition

February 15, 2008



Amidst recent news of intellectual property risks, tainted pet food and hazardous toys, corporate executives and Krannert experts discussed a broad range of issues surrounding managing operational risk in the global supply chain at this year's annual conference. Held at Purdue Memorial Union Friday, February 15th, 2008 the event was hosted by the Global Supply Chain Management Initiative (GSCMI) and co-hosted through support from Purdue's Center for International Business Education and Research (CIBER).



Ryan Menke

SVP Supply Chain
OFS Brands
Summary By: Mark
Vymyslicky MBA 2008

OFS Brands is a privately owned manufacturer of furniture solutions for office and health-care applications. Mr. Menke focused on the changes that have occurred in the furniture industry over the past decade and how OFS was able to stay ahead of its competitors by placing a renewed emphasis on operations in the supply chain.

1999 was a pivotal year in OFS Brands' history, chief among those threats was a trend among customers towards mass customization. In an attempt to stay competitive, OFS began a series of acquisitions to vertically integrate their supply chain. They switched to a make-to-order inventory system, and by 2001, were using an "engineer-to-order" system. Order cycle times decreased dramatically. Along with the vertical integration of the supply chain, OFS invested significantly in new technology to help meet the latest customer expectations, and designed products that aligned with the supply chain. In all, Mr. Menke's presentation gave the audience a glimpse into a very successful business located right in the heart of Indiana.



Dan Spellman

VP Logistics and Supply Chain
Cat Logistics
Summary By: Roman Kita
MBA 2009

Cat Logistics is the third-party logistics division of Caterpillar, and serves the supply chain management and logistics needs of outside clients in a variety of industries. Mr. Spellman thoroughly addressed the issue of managing operational risk in the global supply chain.

Mr. Spellman divided risk into two categories, strategic and operational. He illustrated some examples of how risk affects different aspects of the supply chain, for example, transport via ocean, air or ground, labor disputes, and last mile deliveries. Mr. Spellman demonstrated how operational risk is handled at Caterpillar through various initiatives and projects. There are three stages in handling risk: first one has to identify the risk, then assess the risk, and finally, manage the risk. Mr. Spellman's examples focused on Caterpillar's successful execution of managing risk.



Doug Sunkel

Dir. of Americas Parts Dist.
Cummins
Summary By: Odien Xu
MBA 2009

Mr. Sunkel has worked for Cummins more than 14 years and has held a number of logistics and supply chain management positions. Mr. Sunkel spoke about two major types of risks, internal and external. Internal risks are caused by the process and systems capacity within a manufacturing company. External risks are caused by key competitors and regulations issued by the government.

Mr. Sunkel discussed mitigation strategies which are widely used in American Manufacturing, including communication and business continuity plans. Mr. Sunkel also shared effective tools that Cummins uses to measure risk; one is FMEA (Failure Mode & Effects Analysis) and the other is RPN (Risk Priority Number). Mr. Sunkel provided two examples from his daily work at Cummins to illustrate how these tools and strategies worked to manage risk in the supply chain.



Keynote Speaker

William Kassling

Summary by: Daniel Brown MBA 2008



The keynote speaker at this year's supply chain conference was Bill Kassling, Chairman of the Board for Wabtec Corporation and a distinguished Krannert Alumni. Mr. Kassling discussed in detail his broad experience in developing efficient supply chains at Wabtec by first leaning-out internal operations and then creating an optimal mix of local and offshore suppliers.

Wabtec was able to accomplish this by conducting a series of Kaizen events where, over a short period of time, a team would tackle 3-6 critical issues. The result of these activities was \$0.5M-1.0M in bottom line profit per event with minimal capital expenditures. Once the internal operations were optimized, Wabtec then had to decide which suppliers should be sourced locally versus offshore thereby optimizing the trade off between labor cost and supplier location. Criteria involved in making this decision included, intellectual property protection, low cost labor gains, and business seasonality and cyclicity. Mr. Kassling's description of strategy development and implementation to manage risk in Wabtec's supply chain provided useful insights for our conference participants.

MBA Case Competition

Operational Risk in the Spiceness Supply Chain

Summary by : Rho Cauley MBA 2009



FIRST PLACE
NORTHWESTERN UNIVERSITY
\$5000



SECOND PLACE
UNIVERSITY OF MARYLAND
\$2000



THIRD PLACE
PURDUE UNIVERSITY
\$1000

In attendance at the final round of the 2008 Global Supply Chain Management Initiative (GSCMI) Case Competition were teams from Michigan State, Purdue University, University of Maryland, University of Akron, Georgia Tech, and Northwestern. These six teams had advanced beyond the first elimination round of the case competition based on their performance against 14 other teams from all around the country.

The two-round format was newly implemented this year. The first round cases were distributed in January and the participating teams were required to submit case responses after a weekend of analysis. Academic judges performed a blind evaluation of the initial submittals and selected six teams to travel to West Lafayette, Indiana. The final round of competition began on Thursday evening, February 14th, 2008, and culminated in a final presentation competition bright and early Friday, February 15th. The judges of the final round were Donald Foley, from the Indiana Economic Development Corporation, James Malone and Jason Wheeler, from the Central Indiana APICS Chapter, and finally Mohit Bhandari and Ryan Menke of OFS Brands.

The case, written by Center Director, Dr. Ananth Iyer, tells of a small "home spun" spice company (Spiceness, Inc.) from the Midwest that grows into a multi-plant, multi-product operation focused on maintaining high product quality through control of both raw materials and product processing. MBA students were challenged to present a compelling recommendation for Spiceness as they balanced the operational risk and reward of outsourced supply.

Six distinct and interesting perspectives were presented, but ultimately it was Northwestern who won the judges over. Not far behind were University of Maryland, taking second place, and Purdue University, taking third place.

A special thanks to APICS, Purdue's Center for International Business Education and Research, Eaton Corporation and OFS Brands for their generous sponsorship of the event.



An Interview with Jason Wheeler



President of Central Indiana APICS Chapter

CELEBRATING 50

Summary by: Nathan Knestrick,
Undergraduate BSIM '08



Jason Wheeler visited Purdue University this February where he represented APICS, the Association for Operations Management, at this year's Global Supply Chain Management Initiative Conference. Jason works for Roche Diagnostics where he is currently in a rotational program which allows him to gain experience in many different positions.

Jason began his career with Red Gold after completing his Bachelor's Degree in Statistics with a minor in Mathematics. While at Red Gold, Jason worked as an Inventory Analyst and later became a Master Planner for the corporate offices of Red Gold. He learned about APICS through a colleague at Red Gold and began to get involved with the organization. In 2004, Jason left Red Gold and began his current job at Roche Diagnostics. His networking through APICS, where he met a Hiring Manager for Roche, landed him his current job with Roche.

Jason was asked "What advantages APICS receives by attending Global Supply Chain Management Initiative

Conferences at Purdue?" He explained that APICS gets great exposure and advertising opportunities at these conferences. The organization does not put much planning into advertisements, so these conferences are a great opportunity to market APICS.

Members of APICS are allowed to go to events held by the organization at discounted prices. These events contain presentations from top executives and great networking opportunities for all who attend. Members are also assigned mentors through APICS's Scholar Mentor Program.

When asked what advice he had for students just starting in the workforce, Jason replied, "Students should be open minded and continue to expand." He also elaborated on the concept of being a "sponge" during the first few years of employment. Students should absorb as much information about the company as possible. This will allow you to pursue your career goals.

Thank you Center Partners!



Leo S. Rayl - Roger Stewart
Roger Willis



Up Close with Alex Zelikovsky Chief Operating Officer of MyThings



Summary by: Madelyn Harris, Undergraduate BSIM '08

Alex Zelikovsky, a Silicon Valley Business Executive and Entrepreneur, attended the GSCMI spring conference and wrapped up the second panel speaker series by rousing insightful questions from the audience as the Q & A moderator. Alex is the co-founder of Baker Street Solutions, LLC and the chief operating officer of MyThings, an online service. MyThings helps people to organize their "things" of value including: electronics, jewelry, antiques and more, while also providing other services such as manuals, repair

information and valuation. Alex held senior management and executive positions with Procter & Gamble's on-line beauty care business, Amazon.com and RJR Nabisco. Alex was also a professor at Purdue in 2000-01.

In an interview with Alex, he expressed that one advantage he finds in coming to conferences similar to the GSCMI conference is being surrounded by cutting edge knowledge. Along with the ability to learn from other professionals, he enjoys the fun atmosphere of the conference.

His advice to Purdue graduates is to always keep the customer in the forefront of their minds, because companies appreciate an employee who is truly committed to delivering the best customer experience possible. All in all, the employee's work and how it affects the customer's experience is going to make the difference to the firm. Alex's second piece of advice is to go into a job not just to work, but to think. He says by doing this, Purdue graduates can then take part in moving the company forward and developing personal and company net worth.



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