

supply chain SOURCE



OUTSOURCING, ENERGY AND GLOBAL SUPPLY CHAINS

By Ghazi Saleem, MBA 2006

Outsourcing accounts for trillions of dollars of trade worldwide. Through outsourcing, companies in the United States can sometimes get the required product from overseas at a fraction of the cost. The McKinsey Institute estimates that if current trends continue, outsourcing by U.S. businesses will increase by 30% over the next five years. There seems to be no slowing down to the phenomenon of outsourcing in the United States. Or is there?

Products from countries, such as China, India and Malaysia, can be manufactured at prices 30 to 50 percent less than in the United States. Even after local taxes and tariffs are factored in, companies can still find a bargain from low-cost country suppliers. But buying products from far away countries like India and China poses a serious challenge when logistics and supply chains are factored into the equation. Companies frequently maintain costly buffer stocks to avoid failing to make timely deliveries. Some companies resort to more-expensive but faster and more-reliable modes of transport, like air freight,

Recent developments, have added to the complexity of managing and maintaining efficient supply chains. In the wake of September 11, shipments are subject to heightened scrutiny which results in delays and increased costs. Even the best IT tracking software cannot predict spot checks and security related hold-ups.

The rising cost of energy has also put global supply chains under immense pressure. While the war in Iraq and hurricane Katrina may have caused a temporary spike in oil prices, it is actually the increase in demand (mostly from China and India) which is fueling the increase in energy costs. Kyle Simpson, of Chevron Corporation warns that the days of inexpensive energy are over. "Easy oil is more or less gone, and now companies must go after deeper oil, which costs more." The simple fact of the matter is that demand for oil is increasing faster than supply.

In 2005, over three-quarters of the executives surveyed by Industry Directions indicated that they are rethinking their existing outsourcing strategy and supply chain network design. Nearly half of all companies are giving a second thought to implementing their planned offshore manufacturing. It is ironic that in their drive to be more competitive, countries such as India and China are inadvertently contributing to higher energy prices. Unless an alternative to fossil fuels is found, energy prices will eventually become so high that companies in the West may find it cheaper to manufacture their own products!

Far Eastern Economic Review, China's Energy Woes: Running on Empty, June 2005, by Philip Andrews-Speed

Supply and Demand Chain Executive, The Analyst Corner: Sourcing, by Tim Minahan May 2005

McCombs School of Business, Supply Chain Management, Seminar Focuses on Energy Crisis, by Sandie Taylor November 11, 2005

Foreign Affairs, The Outsourcing Bogeyman, Daniel W. Drezner, May/June 2004

Wall Street Journal, Manufacturers Cope With Costs of Strained Global Supply Lines, by TIMOTHY AEPPEL December 8, 2004; Page A1





Global Supply Chain Management Conference Overview

By Brent Horrocks

The Global Supply Chain Management Initiative is proud to present the first annual Global Supply Chain Management Conference this February 16-17, 2005 at Purdue University in West Lafayette, Indiana. This will be an annual event designed to explore key issues facing supply chain managers as they lead their firms into the global marketplace. This year's theme is "Coordinating the Global Supply Chain." The conference features keynote speakers, workshops, panels, and an MBA case competition for this year's events. This year's events are sponsored by Philip Morris USA, Ford Motor Company, Saint-Gobain Containers, Kimberly-Clark Corporation, and General Motors.

Keynote Speaker

Steve Akard, Director of International Development at the Indiana Economic Development Corporation (IEDC), had a stellar record at State Department where worked as lead Advance Office for Secretary of State Colin Powell in addition to his experience overseas at US Consulates at Brussels, Belgium and Mumbai (India). Most recently he was a member of Governor Daniels' trade delegation to Asian countries.

Case Competitions

One of the most important features of this year's conference is the MBA and the undergraduate case competitions. MBA students from some of the top business schools around the globe will be analyzing a business situation written by university faculty from Purdue and USC along with industry consultants from Bose McKinney & Evans LLP. The theme of the case is "Intellectual Property in the Global Supply Chain." Teams will be judged by industry executives along with university faculty. This is a great opportunity to see how the best and brightest students tackle one of the biggest issues facing businesses as they expand into new markets.

The undergraduate case competition is sponsored by Kimberly Clark and is open to all undergraduate management students at Purdue University. This year's case will feature Radio Frequency Identification (RFID) as a theme and will allow management students to showcase their talents to industry executives.

Panel Discussions

There will be two panel discussions during the conference. The first will focus on coordinating the global supply chain, and the second on structuring the supply chain for intellectual property protection. The conversation on coordinating the global supply chain will be conducted by four of GSCMI's partners who have generously agreed to. Attendees and panelists will engage in meaningful discussions about how global issues impact the day to day challenges and opportunities supply chain managers face. Here's a list of the panelists:

Ignacio Garcia

VP Global Purchasing & Manufacturing Support, *Cummins*

Thomas Ward

VP of Integrated Supply Chain, *Air Products and Chemicals*

Jonathan Freeman

Global Director of Logistics, *Delphi Automotive*

Craig Stariha

Director of Direct Materials Purchasing, *PMUSA*

As companies expand globally, businesses must become more aware of cross-country policies and issues relating to valuable intellectual property. To help the audience understand how to deal with these issues and protect competitive advantages, three industry professionals will answer questions and engage in meaningful exploration of cutting edge industry practice. Here's the list of panelists:

Roger Stewart

Krannert Professor
(former P&G Head of Global Treasury)

Ron Cloyd

Director of New Product Introduction, *Rolls Royce*

Alex Zelikovsky

former Director of Logistics for Amazon.com and Reflect.com

Eyal Barash & Brion St. Amour

Counsel in the Bose McKinney & Evans LLP Intellectual Property Group

Workshops

In addition to the panel discussion, there will be two workshops intended to give participants a closer look into some aspects of the global supply chain. The first workshop will focus on research and development in the supply chain and how to retain the best global talent. Jeff Tew from General Motors will be heading this discussion. The second workshop is on risk management. Roger Stewart from the Krannert School of Management will head this topic. Mr. Stewart is the former Head of Global Treasury from Proctor and Gamble.

Case Competition Awards Dinner

No conference is complete without a dinner and awards ceremony. During the awards ceremony, the winners from the MBA case competition will be recognized. The dinner will also provide an excellent opportunity to network with the panelists, speakers, students, university faculty, and other industry attendees. And, of course, the food will be excellent!

If you would like more information about the schedule of events visit our web site www.gscmi.org. If you would like to register for this event visit www.conf.purdue.edu/GSCMISI. This will certainly be a valuable experience for everyone who is involved and will fast become one of the leading events on global supply chain.

PhilipMorrisUSA



Kimberly-Clark Corporation



Student Profile **Ghazi Saleem** By Charlie Kuo, MBA 2007

STUDENT PROFILE



In this month's student profile we will introduce Ghazi Saleem who is one of our MBA students (class of 2007) and a graduate assistant with Krannert's

Global Supply Chain Management Initiative (GSCMI) and the Dauch Center for Management of Manufacturing Enterprises (DCMME).

Originally from Pakistan, Ghazi joined Pakistan Air Force as technical analyst and was later promoted to production control officer before coming to

Krannert. While assigned post to U.S., Ghazi also completed a degree in aeronautical engineering from United States Air Force Academy. He had to work with production and supply chain related problems on a daily basis. It was during that time that he developed interests in supply chain.

When making the decision on where to go for his MBA, Saleem said, "I was looking for schools good in supply chain and operations. Krannert offers the best program in the field and is a MBA program with good reputation in engineering field. My preference shouldn't be surprising considering my background. My assistantship with GSCMI and DCMME is a great oppor-

tunity to research supply chain and manufacturing issues, and the experience complements my MBA study."

Saleem believes that supply chain management is going to be increasing important as globalization progresses and trade barriers are removed. He wants to work in the field which awards him the chance to utilize his expertise and take this educational experience and build on it.

Saleem believes that courses taught in MBA programs are the basic tools needed to be an effective manager. In his opinion, "everyone in the world should get MBA." This is just how critical he believes these skills are!

Executive Interview

Mr. Ignacio Garcia

Cummins Supply Chain VP

Ignacio Garcia, Vice President of Cummins Supply Chain, will be speaking on coordinating supply chain in China and India under the framework of Cummins's business structure in Purdue's Global Supply Chain Management Conference on February 16 and February 17. In addition, he will serve as one of the judges of the case competition. His extensive industry experience and knowledge will contribute tremendously to this conference.

Cummins is a global corporation that designs, manufactures, distributes and services engines and related technologies. Its business is organized into four divisions: Engine Business, Power Generation Business, Distribution Business, and Components Business. Cummins is headquartered in Columbus, IN but it has 28,000 employees worldwide. In 2004, its revenue was \$8.4 billion.

In today's business world, globalization is a necessity to trim cost so as to remain competitive. To that end, Cummins has engine plants in China and India and each of them presents different operational obstacles.

As an early entrant in the Chinese market, Cummins has to play by the Chinese rules. For instance, Dongfeng

Cummins Engine Co. Ltd., a 50-50 venture with Dongfeng Motor Co., a state-owned maker of cars and trucks, in China is situated in a remote region and the location was picked out by the Chinese government and Dongfeng. According to Garcia, even though business is laden with bureaucracy, the partnership has proven fruitful for Cummins.

While in the Indian operation, Cummins own 51% of Cummins India Ltd. and most of the rest is owned by shareholders listed in the Bombay Stock Exchange. Garcia states that even though India lacks an extensive infrastructure, Cummins has been making headway. Currently, its Indian business runs the gamut from rental trucks to info-tech support. Cummins is able to execute many of its operations cost-effectively due to the utilization of highly talented low-cost engineers.

Garcia is well versed in the challenges of running engine plant operations in China and India. Doing business in China naturally entails bureaucracy whereas doing business in India means coping with a lack of infrastructure. He and Cummins believe that the tradeoffs are well worth it.

Cummins Supply Chain VP





In the News:

Kimberly-Clark Leads the Way in RFID Technology

By Rasheeda A. Washington

Kimberly-Clark Corporation has committed itself to the research and development of RFID technology. In April 2004, the \$15 billion consumer goods giant "was the first U.S. company to ship an item tagged with an electronic product code off a commercial line." It built a 5,000 square-foot warehouse to serve as a testing lab for RFID technology in Neenah, WI and it began using tags for products destined for Germany and the United Kingdom. In late 2005, it was preparing to move to the UHF Gen 2 tags and firmware which are the next generation of RFID tags.

Why is Kimberly-Clark so dedicated to this unproven technology? It is expensive at a hefty price of about 30 cents each and RFID has other issues such as equipment failures and its inability to work in certain environments. According to Director of Business Systems Greg Tadych, a conversation with the Director of North American Logistical Alliances Mike O'Shea quickly revealed the positive impact RFID technology could have on Kimberly-Clark's shipping, receiving, invoicing, and forecasting. CIO Terry Assink feels it is well worth the time and investment because "RFID should give [them] visibility into [their] whole supply chain." It has

achieved the rare "FOAK" (first-of-a-kind) status at Kimberly-Clark which means this initiative has a huge budget to help achieve its business goal regardless of timeframe. Though Kimberly-Clark is collaborating with Michigan State University and the University of Wisconsin Stout, talent is one of its main concerns. O'Shea states that there is a need to employ people with RFID expertise and that he hopes universities will do more than just research and "take a look at their curriculums to prepare a workforce to support the demand that's out there [for RFID]."

The teamwork displayed between Kranert professors and Kimberly Clark during development of the case "RFID in Consumer Product Manufacturing" for the undergraduate case competition at the upcoming GSCMI "Coordinating the Global Supply Chain" is an excellent example of the kind of action and coordination needed.

Sources:

Information Week - March 2, 2005

Kimberly-Clark Adds European Retailers to its RFID Program
<http://www.informationweek.com/story/showArticle.jhtml?articleID=60404910>

CIO Insight - December 27, 2005

Kimberly-Clark Believes in the Future of RFID
<http://www.cioinsight.com/article2/0,1540,1904473,00.asp>



 www.mgmt.purdue.edu/centers/gscmi

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