

supply chain SOURCE

The Global Supply Chain Unleashed at Purdue by Karen Hatke Freelance writer



Mr. Allan Rae, American Axle & Manufacturing

“There will be a market for 500 million vehicles in China and India in 2030.” That was the bold prediction by **Allan Rae of American Axle & Manufacturing** during his keynote address at the Annual **Spring Global Supply Chain Conference** on February 11, 2011 on the Purdue University West Lafayette campus. Automakers have heavily penetrated those markets already, with companies like General Motors presently building more vehicles in China than in the U.S., so this is not out of realm of possibilities,” he asserted. “This is undeniably one of the most dramatic times in supply chain management for the automotive industry.”

Although this “unleashing” is generally happening globally, it became apparent from listening to supply chain experts from around the world that the market opportunities are as varied as the cultures, trade regulations, economic situations, and security issues for each country. For companies that are willing to seek out the details for either globally selling or making their products or who are capable of joining the supply chains of others, the rewards could be beyond their expectations. And for businesses that are unsure about jumping in the fray, there are consulting experts such as **The Entrada Group**, specialists in doing business in Mexico and the southern hemisphere, who can do the homework and assist with location and work force procurement.



Dr. Ananth Iyer, Director GSCMI

There are many issues that are unique to successfully doing global business. They all relate to building and skillfully managing a strong and nimble supply change, but two issues appear to be directly related to sustaining a global business: supplier quality and understanding the culture. The most critical of the two that was touched on by all of the speakers was assuring that suppliers consistently provide the level of quality and timeliness needed in the products they supply. Companies like GE Energy, which does business in over 100 countries and has



Picture left Jan Fransoo Middle Julie DeWane (GE)

thousands of suppliers, have high expectations for their supplier partners, according to **Julie DeWane, GE's global supply chain vice president**. A sophisticated supplier approval process with stringent requirements is one of the key elements of GE's program while companies like OshKosh Corporation not only maintain precise product

continued on back page





Global Opportunities in Africa Presented by Ernest Blatchley, III, Ph.D., Professor

Brian Bobo, MBA 2011, Center GA



The Dauch Center for the Management of Manufacturing Enterprises and Global Supply Chain Management initiative hosted a panel of speakers to discuss challenges and opportunities in “Unleashing the Global Supply Chain”. To begin the day we had the privilege of hosting Prof. Chip Blatchley from Purdue University, to discuss the lack of clean water in developing countries.

Prof. Blatchley first discussed the lack of fresh water in these countries, pointing out the differences between our expectations in the United States versus the expectations in these developing countries. He then went on to explain a simple process for water purification currently used in some areas, but warned that cultural differences within these emerging markets will prohibit a uniform solution.

Prof. Blatchley then began to lay out a plan that would allow these regions to develop sustainable business opportunities regarding water treatment. In this plan, he stressed the use of local resources which would allow adaptability to local requirements. He then laid out several different technologies that would allow these markets to clean their water, removing microbes which lead to many diseases, including dysentery and cholera. Using these technologies local entrepreneurs are taught how to sell and maintain water filters, providing value to the area

Lower Cost Production Presented by Paul Karon, Managing Partner

Saurabh Choudhury, MBA 2011, Center GA



As part of the 2011 Spring Conference Paul Karon, Managing Partner at Entrada Group. He spoke about lower cost production locations, specifically presenting a comparison among Mexico, Costa Rica and Honduras. Most of these foreign companies have a very good production system but lack general management and exporting expertise to grow their business. Paul Karon along with the rest of the Entrada group helps these companies in executing corporate functions and also in building a long-term relationship with North American companies.

Mr. Karon compared various fees and cost across multiple South American and Central American countries. The variable cost comparison ranged all the way from labor cost to the border cost of operating in each country. Mr. Karon also compared various risk among these countries. He pointed out how security is a big issue in Mexico and Nicaragua compared to Costa Rica whereas currency is more stable in Nicaragua compared to Costa Rica. When compared Nicaragua a much riskier country compared to Costa Rica.

While searching for a low cost manufacturer, this presentation provides an excellent framework to evaluate various countries. It provides a generalized framework for any company in any industry to decide on alternatives to get the cost advantage without increasing the unexpected risk.

Unleashing the Global Supply Chain, Presented by Greg Fredericksen, Exec. VP Purchasing & Chief Procurement Officer

Anthony Fisher, MBA 2012, Center GA



Mr. Fredericksen shared his perspectives and insights on “Unleashing the Global Supply Chain” from the vantage point of OSHKOSH, a multi-billion dollar company, who is a leading manufacturer and marketer of access equipment, specialty vehicles and truck bodies for the primary markets of defense, concrete placement, refuse hauling, access equipment and fire and emergency vehicles.

OSHKOSH has a geographical presence in over 130 countries around the globe, in which they sell and service their products. Mr. Fredericksen gave a captivating presentation on the growth drivers for OSHKOSH, and their 2011 focus areas to position OSHKOSH for these opportunities. He explained there are many market opportunities driven by the increasing intertwined world economy, such as unexplored markets, regions, and industries, and by leveraging OSHKOSH’s global supply chain network, they were positioned to enter these markets through innovative product offerings which help deliver solutions for their customers. In order for firms to be successful in the global markets, he stressed having a solid supply chain strategy is essential.

Mr. Fredericksen’s final part of his presentation concerned potential barriers that firms must be cognizant of in unleashing the global supply chain, including establishing employee buy-in, considering time zones, culture, and language. His solutions were to develop effective communication channels, being flexible, and to create a culture of competition.

Commitment= Expansion Keynote presented by Allan Rae Executive Director Business Systems

David McDiarmant, MBA 2012, Center GA



The GSCMI audience had the opportunity to hear from Allan Rae, an executive at American Axle & Manufacturing (AAM). Mr. Rae spoke about building and maintaining a supply chain to bring together suppliers, manufacturing facilities, and customers all around the world. AAM has faced the challenge of building factories and developing workers who can meet their stringent quality expectations in widely differing environments and cultures.

As part of their training program for a new factory, AAM brings managers and workers to its top world class facility located in Zacatecas, Mexico. It is at this location that AAM does its highest quality manufacturing; the site is a leading example of American manufacturing. AAM has opened plants around the world in India, Brazil, China, Thailand, and Poland. In each location, AAM has the challenge of developing workers in a new culture. It has found that each new location presents its own strengths and difficulties.

Mr. Rae spoke about Richard Dauch, the CEO of AAM and the naming donor of the Dauch Center for the Management of Manufacturing Enterprises. His commitment to build parts that exceed print specifications for quality has enabled AAM to develop a reputation as a top automotive supplier. Replicating this level of quality management around the world has been a challenge, especially in the area of supplier management. In many places, the tools for measuring quality are not even known to most suppliers, so AAM must ensure that it educates and helps its suppliers become competent in quality management when ramping up production in a new location.

While building a global supply chain is a complex task, the benefits from lower costs and being closer to customers are undeniable. Our thanks to Mr. Rae for shedding light on AAM's experience as a major automotive supplier in building a global supply chain.

Realizing Supply Chain Control and Collaboration Presented by Jan C. Fransoo, Professor

Anthony Fisher, MBA 2012 Center GA



Mr. Fransoo discussed the exciting initiatives under way at the Dinalog Institute & Campus. Their mission is to act as a physical and virtual place where private sector companies can interact with centers of excellence. Their ambition is to facilitate industries to obtain benefits from centralization, collaboration, and innovation. Located in the Netherlands, they have done just that. They are aiding large corporations through application of a 4C methodology, which stands for Cross Chain Collaboration Center, which allows firms to maintain scale benefits and cost efficiencies when facing various channels as one example.

Dinalog is positioning themselves to enable the Netherlands to be a European Market Leader in logistic control by controlling transnational flow of goods and boosting development and innovation. This goal is driven by a philosophy of open innovation and wide implementation. Construction for the central Dinalog Campus begins January 2012, and Mr. Fransoo explained this will be a platform to stimulate interaction between the academic world and private industry, attract qualified industry partners, and to help innovative companies, start-ups, and new post education activities.

Leadership in the Global Supply Chain Presented by Julie DeWane, Vp Global Supply Chain

Heather Owens, MBA 2012, Center GA



Students and industry professionals were fortunate to have Julie DeWane, VP Global Supply Chain, from General Electric give her thoughts on the growing global market and the importance of the supply chain. Ms. DeWane notes supply chain management no longer only includes cost, quality and delivery but now necessitates knowledge of trade, regulations, currency and current events. Today's leaders must understand the complicated landscape of political, economic and societal aspects of business operations globally.

The global nature of the supply chain is vital to GE's business as they operate in over 100 countries. Ms. DeWane stresses that, "Leadership in the 21st century is going to be the differentiator. Companies that are going to succeed it's going to be because they are going to have leaders who are globally-minded systems thinkers." She also notes that this success comes from having a passion for change, understanding how the world is evolving and being able to adjust your strategy based on

Doing Business in Russia Presented by Richard Germain, Professor



Professor Richard Germain, from EBS University in Germany, shared with conference attendees doing business in Russia. He emphasized the high amount of economic growth in Russia, pointing out that in the next 40 years, Russia will move up significantly in GDP size rankings.

Russia has a relatively low tax rate compared to the US. However, the size of the government relative to GDP is about the same. The difference in tax revenue is made up by the government's ownership of several giant firms, especially in the energy and transportation industries. These businesses generate large amounts of revenue for the government, and reach deep into the Russian economy; even the university where Professor Germain works is paid for by the government.

Working in Russia involves a great deal of patience dealing with regulations and paperwork. Similarly, clearing customs with imported materials can require a great deal of time and effort. Because of uncertainty associated with customs, manufacturers must carry a great deal of safety stock to ensure stable production.

Russia continues to be a major world power. While operating a business there can be difficult, there are many companies who see the need to enter the Russian market. Before doing so, however, it is important to learn about what is needed to run a successful business there.



Unleashing the Global Supply Chain....continue from front page



Gregg Fredericksen OshKosh Corp

specifications, but have a standard procedure of primarily furnishing product performance requirements to global suppliers. “This gives them the latitude of using local material sources that can achieve the expected outcome and quality in our processes. Global markets have challenged us to be open to and innovate local solutions, which expands our supply chain,” says **Gregg Fredericksen, OshKosh’s chief procurement officer.**

The other major global business issue mentioned most often in the conference, is understanding the culture of the country. Everything from when and where your plant can be built to your production work hours and the security of your operations can be affected. Many success stories were related that could be directly attributable to building rapport and good will right away and then becoming a visible part of the community. Needless to say, a different leadership style has evolved as well that sees learning and respecting the cultural differences as the foundation for success in global supply chain management.

Corruption and security also were mentioned, but as serious problems rather than issues, in many global markets, which should be weighed, ideally, during the exploratory phase of expanding into a particular country. Doing business in Russia, for example, requires a lot of hand holding of government officials; but those who have been patient and persistent consider their way of doing business as a cultural difference to which they have adapted. On the other hand, in developing countries in Africa, corruption and security take a back seat to the pervasive lack of safe drinking water and the dire financial situation of the people. “It’s like chipping away at an iceberg with an ice pick,” says **ecological engineering professor Chip Blatchley**, who is working with global organizations and manufacturers to find reasonable, inexpensive, and sustainable solutions that could open up developing countries to global supply chain opportunities.



Picture left Professor Blatchley (Purdue), Dr. Iyer & Paul Karon (The Entrada Group)

Despite the hurdles and the issues of “unleashing” the global supply chain, the message from this year’s conference was loud and clear. It is no longer economically safe to say “we’ve tried that before” or “we’re too small.” In a recessive economy, survival and recovered depend on innovation and taking risks in order to survive. The market is wide and varied for quality products beyond the boundaries of the U.S. as the worldwide markets begin to recover.



*Richard Germain
EBS University Germany,*

Conference attendee and student case competition judge Peter Rokosz of ArcelorMittal complimented Krannert’s Global Supply Chain Management Initiative on successfully bringing together many insightful ideas and perspectives at this year’s conference. “Both students and companies were able to see what barriers and challenges are present in a global supply chain,” he said, “and being a part of this conference allowed me to see how truly important it is to understand the economic, political, and societal issues in unleashing the global supply chain.