Director’s Message

The Supply Chain Management Institute (SCMI) continued its involvement in many programs and events both on and off campus over the past year. Our value proposition remains to connect students and faculty with industry.

The Lubar School’s Supply Chain students have many wonderful opportunities to gain meaningful experience. Our students have excelled in internships, co-ops and full-time positions with many companies in the region, and we continue to expand the network of companies that recruit our highly-skilled graduates.

Experience comes in many forms, so we also remain focused on delivering many opportunities for our students to enter supply chain competitions. This year that included events in Whitewater, WI, Chicago, IL and Minneapolis, MN.

Over the past year, we were again pleased to collaborate with the UWM Office of Undergraduate Research by hosting two incoming freshmen who got an early taste of applied learning by conducting and presenting supply chain research.

To keep our own “supply chain” of students flowing, our faculty reached out to area high schools to stoke student interest in studying business in general, and supply chain careers in particular.

Our faculty are committed to working with our member companies and our students on a variety of projects. Our member companies have brought us challenging and rewarding projects over the past year. Under the guidance of faculty, SCMI students collaborated with Briggs & Stratton to analyze transportation bids in Mexico; modelled tactical inventory strategies for The Master Lock Company; and evaluated warehouse storage container options for Goodwill Industries, just to name a few.

SCMI faculty and students also partnered with colleagues here and at UW-Madison to support a USDA food waste composting grant focused on landfill waste-stream reduction.

Finally, we continue to reach out to the broader community, opening our doors to many local industry professionals by hosting APICS and ISM dinner meetings on the UWM campus. Bringing these industry professionals to campus allows them to observe first-hand the extent of the SCMI resources and impact we can have on the business community.

As we complete our seventh year this December, we continue to develop new opportunities and envision others for SCMI to deliver rigorous, real-world, and relevant programs. The following is an update on the four goals pursued by SCMI.

**Goal 1: Facilitate knowledge partnerships**
The Institute has engaged in a number of interesting project partnerships with our member companies this year, including:

SCMI member company Briggs & Stratton leveraged the SCMI resources to analyze a Mexico transportation bid and provide recommendations. Bids from multiple modes of transportation were considered including couriers, LTL carriers and truckload carriers. Not only did SCMI recommend adding a second Mexican carrier to significantly reduce Briggs & Stratton’s transportation spend, but SCMI worked with Briggs & Stratton on an implementation plan for bringing on the second carrier.

SCMI developed an Excel-based inventory modelling tool for The Master Lock Company to complement the company’s ERP system. The tool recommends the inventory level necessary for each SKU to achieve its service level goal across the distribution network. The output is displayed in a user-friendly graphical format for each SKU. Master Lock Company has also used the model to simulate the impacts of various inventory policies before changing the inventory settings in its live Oracle-based ERP system.

An analysis of product storage containers was completed for Goodwill Industries of Southeastern Wisconsin. Goodwill stores the donations it receives in “Gaylords” which consist of a pallet and three and a half foot high cardboard sleeve to keep the contents in place, but the management team wanted to investigate the use of more durable plastic containers. While the plastic containers have a longer life and can be stacked higher than the Gaylords, they cost ten times as much. To understand these trade-offs, SCMI performed a comprehensive analysis and found the plastic containers to be more cost-effective for the operation.
Supply Chain Students Visit Green Bay

Mark Kosfeld took six supply chain students on the Spring Road Trip in April 2018 to visit locations in Green Bay, WI. The first stop was at a Georgia Pacific packaging and distribution facility, where students learned about the company’s packaging operation. They were impressed by the many forklift applications the facility uses to load and unload trucks, and move product within the facility.

The second stop was at the headquarters of RGL Logistics, a freight brokerage company. RGL executives began the visit with an overview of the freight brokerage industry. The students spent the rest of the afternoon shadowing RGL employees. They were able to observe the systems and report the employees used, phone calls from customers needing loads picked up, and communication with carriers to cover the loads.

The students had planned to tour Lambeau Field, home of the Green Bay Packers, before heading back to Milwaukee, but Mother Nature had other plans. Thirteen inches of snow visited the Green Bay Friday night and the students instead spent Saturday morning digging out the van before heading back to Milwaukee.

SCMI Involvement

The Supply Chain Management Institute has hosted or contributed to a number of events over the last year. The following describes some of these events.

SCMI Hosts APICS Meeting

SCMI hosted the November 2017 APICS meeting that featured keynote speaker Pamela Dow, Vice President of Supply Chain and Global Transformation at Johnson Controls. Dow’s presentation was titled “Pioneering the Future” and highlighted the many products Johnson Controls produces that power our cars and homes. Dow’s keynote also focused on change management and business transformation. She described a typical IT systems implementation and the commonly seen productivity dip that occurs after implementation. Dow’s strategies and techniques were presented for maximizing not only the depth of the productivity dip but also the time to recover back to pre-implementation productivity levels.

Principal Financial Group Hosts Students in Des Moines

The Lubur School of Business Supply Chain Management Institute partners with companies on practical and theoretical issues with an interdisciplinary focus. Our aim is to disseminate emerging insights and knowledge to our local and regional constituents. The Institute seeks discipline-based and interdisciplinary collaborations on faculty-led research projects, problem-based learning initiatives for students, white papers on emerging issues, and best-practice case studies. Three levels of membership (Participating, Supporting, and Founding) provide opportunities for any company to be involved at a level that meets its needs. The SCMI also welcomes ad-hoc projects on a fee basis with non-member companies. This allows the opportunity to benefit from the SCMI capabilities before becoming a full member.

Benefits of joining SCMI

Our interests are in a wide range of analyses, improvement, and research projects such as: strategic audits of facilities, distribution and manufacturing planning and control systems, Lean, Six Sigma, supply and risk management, facility locations analysis, strategic sourcing, inventory and capacity analysis, new facility design or existing facility reconfigurations to improve productivity and safety, and analysis and improvement of manufacturing and service business processes. Information on joining SCMI and submitting project requests can be obtained by email, phone, or on our website.

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SCMI Members Companies

The Master Lock Company
Welch Allyn
Rockwell Automation
Saputo Cheese
Climate Group
Saputo Group

SCMI Member Companies

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Goal 2: Deliver high quality supply chain curriculum

This past year, UWU expanded its use of simulations in the Introduction to Supply Chain course that is required for all Lubur School of Business majors. Throughout the semester, students completed four online simulations that provided a rich, hands-on experience with topics such as supplier selection, inventory management and quality control.

During the Spring 2018 Transportation and Logistics Management course, student teams had a unique opportunity to interact directly with truckload carriers to gather bids on various transportation lanes. Executive teams from RGL, the sponsor of this project and an SCMI member company, invested valuable time in the classroom educating the students on real-world perspectives within the trucking industry and strategies for identifying and contacting potential carriers to solicit bids.

Not only did the students gain a better understanding of the truckload industry, but they also acquired valuable knowledge not often taught in the classroom. Many students commented reflectively, how important it was to be succinct in the phone when talking to the carriers. Other students learned the importance of follow-up emails and phone calls to gather the information they needed. Last, some students were surprised to find out that many carriers are very specific about the lanes that will fit within their network and won’t bid on lanes that aren’t a good fit.

Goal 3: Create a vibrant environment for the generation and dissemination of knowledge

Dr. Anthony Ross and Mr. Mark Kosfeld contributed an article to the September 2018 issue of Modern Materials Handling. The article discussed the changing tide of corporate-university relations and offered a framework for the various ways a corporation could benefit from the SCMI.

SCMI is collaborating with Professors Steven Trick (UWM Lubur School of Business) and James Peoples (UWM Economics Department) on a study of truck driver shortage. Phase one of the study empirically examines the personal characteristics of truck drivers that are associated with a greater probability of driver turnover. Exploration of this phenomenon is significant because knowing who is likely to leave a trucking company helps decision makers in trucking firms identify effective measures to reduce driver turnover.

Goal 4: Foster interdisciplinary collaboration across UW-Milwaukee

SCMI partnered on a waste food composting study with the Geographical Information Studies department at UWU, as well as colleagues at UW-Madison and UW-Extension. An SCMI student built a vehicle routing model in Excel and used it to assess the cost of various food waste hauling scenarios. You can read more about this award-winning project on page 2.

Food Waste Project Recognized

It is estimated that residents and businesses in Milwaukee generate about 50,000 tons of food waste annually. Currently, most is sent to landfills where it generates methane gas, a potent greenhouse gas.

A cross-functional project team comprised of experts from UWM, UW-Madison, and UW Extension was formed to investigate methods of diverting food waste from landfills so it could be turned into compost. SCMI’s role in the project was to analyze the food waste-to-compost network and identify the best compost processing destination for each source of food waste. Due to capacities at the compost processing locations, the best destination for each source of food waste is not always the closest location.

Drew Collar, an SCMI student from September 2017 to May 2018, developed the food waste routing model. Sources of food waste in Milwaukee and the surrounding area are loaded into the model along with possible delivery destinations for processing the food waste into compost. Food waste hauler Compost Crusader was a key member of the project team and provided data for the pickup and delivery of food waste. The model leverages Excel’s Solver tool to find the optimal destination for each source of food waste.

In June 2018 the project team was recognized with a Community-University Partnership Award presented by University of Wisconsin Chancellor Rebecca Blank. Extensions of the work are ongoing.
SCMI Hosts ISM Meeting

Dr. Anthony Ross presented the keynote titled “Developing Supply Base Intelligence Beyond Your Tier I Suppliers” at the February 2018 Institute for Supply Management (ISM) meeting. Ross demonstrated a Bloomberg Terminal application that can be used by companies to find linkages between their suppliers. This insight could then result in alternative sourcing strategies and contingency plans for the company. The keynote was followed by a panel discussion that included two ISM members and two members from industry. Many interesting approaches the panelists were taking to engage with their Tier II and Tier III supply base were discussed.

Future Success Program

The Future Success Program (FSP) at UWM focuses on providing high school students and their parents with information and academic support services necessary for college admission and completion. Seventeen students enrolled in the FSP Business Track for a five-week look at business topics including entrepreneurship, finance, marketing and supply chain. Lubar instructors Michael Freimark and Mark Kosfeld led the program’s business track during July 2018. The students learned about business from many guest speakers throughout the course. One of the guest speakers from the Lubar Entrepreneurship Center led the students on a business model canvas activity where they experienced a technique many entrepreneurs are using to develop their business model. The students also toured the Charter Steel plant in Saukville, WI to see how recycled metal is melted down and transformed into wire. The experience was eye-opening for many of the students who had never been in a manufacturing facility the size of Charter Steel.

SCMI Leaders and Collaborators

Anthony Ross, PhD
Rockwell Automation Professor & Founding Director, SCMI
Mark Kosfeld, MBA
Lecturer & Associate Director, SCMI

SCMI Affiliated Faculty:

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