



## **Tauber is the Key to Operations Success**

Sarah Markey, 24, finished up her master's in mechanical engineering at the University of Michigan this year with six job offers including a fantastic opportunity with IBM in Austin, Texas. The competitive edge came in part from a 14-week internship through the university's Tauber Institute for Global Operations, which focuses on operations management. During that time, Markey joined Rahul Chowdhury and Alida Villareal, students at the university's Ross School of Business, to work on a successful strategy for Masco Cabinetry that has generated savings of \$10.8 million-plus a year and increased network-capacity utilization by over 20 percent. They helped transition Masco Cabinetry from a brand-driven to a competency-driven supply chain.

"They really had two deliverables," said Chris Winans, the vice president of operations with Masco Cabinetry. "One was to optimize the component-manufacturing network while minimizing cost and the other was to build an Excel-based model that keeps the supply chain relevant on an annual basis. To do this, they built an optimization tool that we're still using today. It allows us to analyze different cost drivers across the network."

As a result, Masco Cabinetry, which is part of Masco Corp., a Fortune 500, closed two plants in Virginia; moved around parts, capabilities, lumber and products; optimized the material flow between key cost drivers within the network; streamlined door-manufacturing and finishing operations; and expanded some capacities.

"In some cases, we shifted all of the production in one direction or another and we took some capacity offline," said Winans. "We also picked up and moved some capabilities that didn't exist in some places and now do the majority of our lumber production, door manufacturing and finishing at single locations. The Tauber Institute attracts top talent and these internships have always been successful for us."

The 20-year-old, award-winning program has 85 to 100 students at a time, accepts around 20 percent of its applicants and simultaneously focuses on both the engineering and business side of operations, making it unique nationwide. "The internships can really set students apart during the job-interview process," said Diana Crossley, managing director with the Tauber Institute for Global Operations. "It's much easier to envision hiring someone who not only has technical skills, but also understands how to apply them within an organization. Additionally, our students get a more holistic view of operations. As a result, two to three months after graduation, nearly 100 percent of our students have taken positions; generally in the \$70,000s to \$100,000s."



Approximately 30 companies - including Ford, Cisco, Cooper Lighting and Amazon - are part of the program, which won the inaugural UPS George D. Smith Prize for its preparation of students in operations research, management science and analytics. The 2012 award was presented by the Institute for Operations Research and the Management Sciences (INFORMS), which is the leading organization for advanced-analytics professionals.

"We have an industry advisory board comprised of senior leaders in top operations companies. They told us that in order for our students to have a competitive advantage, they also needed leadership training," said Crossley. "So we do that now and the 30-plus summer internships are an opportunity to begin applying it."

Students also do facility tours at places like GM, Ford and UPS; can volunteer to help coordinate the Tauber Leadership Speaker Series, which draws speakers from companies like Target, Intel, Bosch and Frito-Lay; and can help plan the Tauber Institute's annual Global Operations Conference. Keynote speakers at this year's conference in November are Mike Roth, the vice president of North American operations with Amazon.com and Jon Lauckner, the chief technical officer at General Motors.

Approximately 47 percent of students accept jobs from companies involved in the Tauber Institute and around 44 percent receive job offers from companies where they've interned (around 22 percent accept them). Three to eight students go to work every year for Boeing and 25 to 35 percent of students take positions with consulting firms. Overall, there is 98% student placement. "It's a very ideal scenario for us. Not only with respect to the internships, but also in terms of hiring top talent who may have already worked with an organization for a time and have the skill set we are looking for," said Winans.

A frequently cited benefit of the Tauber internship program is that companies gain access to all of the university's research and resources. "You've got the University of Michigan behind it including all the research that they've done and all the learnings that they have," said Chris Scocos, the vice president of operations with Cooper Lighting. "So the students can talk with professors and other researchers and look at past case studies."

The students also cite the university's support as a key benefit. Each team is assigned two faculty advisors (one from the university's Ross School of Business and one from the College of Engineering); a communications coach, who previews papers and presentations, suggests edits and provides general style tips; and a team-dynamics coach, who makes sure the students are working well together.



"During the first few weeks at Masco, I felt so fortunate to have my two teammates. They have a business background and really brought me up to speed on all the business principles that I wasn't as familiar with," said Markey. "When we began to implement our plan and got into the technical work, I think that was my opportunity to lend them a hand and show what I could do."

Typical projects require a lot of analytics, but don't require specific industry expertise or product knowledge. "The Tauber Institute makes a lot of sense when you have a project with a sufficiently narrow scope," said Winans. "So the team can come in, do some pre-work and finish the project in 14 weeks."

Rahul Chowdhury, 31, who is now a senior manager in global-business processes with Wal-Mart Stores Inc., had a background in supply-chain consulting and brought two distinct experiences to the project: modeling large, complex supply-chain entities and managing limited timeframe projects with a diverse team in a client space.

"But even with my experience, it was a very challenging project since we had a very limited time to build a model for an entire component supply chain. The span between early May and August was jam-packed with each of us giving at least 10 to 12 hours on most days if not more. It was great teamwork and all of us chipped in with a fair amount of the workload. I took the lead in project scoping, solution building and best-practice identification. We were fortunate to have the complete support of our sponsors and faculty advisors."

He now has a full-time, six-figure job as an internal consultant with Wal-Mart and is responsible for merchandising analytics for Wal-Mart's international arm.

"My responsibilities involve working with teams from different geographies to find ways to reduce costs and improve sell-through across different merchandising departments and categories. Even though this is a very different industry and work profile, the analytical skill sets I developed during the project have been very helpful in my present job. As an international student, I did not have any exposure to working in the United States. But due to my Tauber experience, I was at ease from my first day on the job. The Tauber project was my most valuable experience at school and I am thankful to the Ross School for including this wonderful learning experience as part of the curriculum."

### **About Tauber Institute for Global Operations**

The Tauber Institute for Global Operations is a joint venture between the University of Michigan's Stephen M. Ross School of Business and the College of Engineering, and many industry partners to facilitate cross-disciplinary education in global operations management. In addition to broad array of core and elective courses, the innovative LeadershipAdvantage<sup>SM</sup> Program provides students with the tools to ascend to major operations leadership roles. Well-designed and managed team projects form the



cornerstone of the Tauber Institute experience and allow students to apply their knowledge to real world settings. The Tauber Institute is an inaugural recipient of the UPS George D. Smith Prize for effective and innovative preparation of students to be good practitioners of operations research, management science, or analytics. <http://www.tauber.umich.edu>