

SDMs Join First MEMPC Simulation Competition by Lynne Weiss

Several SDM students had the opportunity to build their systems thinking capabilities and expand their professional networks when they participated in a simulation competition organized by Master of Engineering Management Programs Consortium (MEMPC).

Founded in 2006, [MEMPC](#) was formed to raise awareness of the value of the Master of Engineering Management (MEM) and similar degrees, as well as to share best practices, curricular innovations, and information among member institutions, which include MIT, Northwestern, Stanford, Cornell, Duke and the University of Southern California.

Professor Mark Werwath, director of Northwestern's MEM program, suggested the MEMPC simulation competition because he wanted MEMPC students to have an experience comparable to the business case and business plan simulations offered in traditional MBA programs. He also hoped that the multi-school teams would help students expand their professional networks beyond their own institutions.

The competition, MEMPC's first, was managed and moderated by Jeff Lefebvre and David Semb of PriSim Business War Games. They are also adjunct faculty in Northwestern's MEM program. "Business simulations are great at building systems thinking capability," Semb said in a recent interview, and Lefebvre noted that simulations help engineers let go of the idea that there are "right" solutions to business problems.

The five SDMs who participated were Brian Hendrix, Daniel Camacho Gonzalez, Terence Teo, Shiladitya Ray, and Dexter Tan. Each was assigned to a different multi-school team that played the role of a company in the domestic automobile industry. Teams managed short- and long-term objectives and made decisions about how to interact with competitors, what new products to introduce, and how to support new products. Each team had to decide how to organize itself. "Teams could organize by function or by product line," LeFebvre said, noting that there is no right way to organize any business or team.

The competition began on February 11 after students had a chance to review a competition manual and explore PriSim's website. The winning team was announced on March 11.

SDM Fellow Terence Teo, a member of the winning team, said they began by identifying its company's strengths and weaknesses as well as market opportunities and trends. Teo felt that a big part of his team's success was the willingness of the members to agree on a strategy: to maintain their product line of high-value cars with a small market and big margins. "We kept our focus on upgrading existing models and on introducing new vehicles quickly," he said.

Teo reported that he thought the second major factor in his team's success was that members respected each other's views. One of their few areas of serious disagreement

had to do with pricing their vehicles. To get advice on this issue, they used one of the two “lifeline calls” each team was allowed to make to Semb. He suggested they compare the prices dealers were paying for cars to what they charged customers. “We realized we had to set a price that was competitive and that let dealers make higher profits in order to motivate them,” Teo explained.

SDM Fellow Brian Hendrix volunteered for the simulation because he wanted to “reinforce some of the real-life experiences I’ve had and put some of the theory I’ve learned into action.” A product development engineer for Ford Motor Company, Hendrix learned from the opportunity to make executive decisions regarding supply chain and brand management.

Although only one team came out on top, Lefebvre said that in his experience, participants on the teams that struggle most are those who learn the most. SDM Fellow Dexter Tan, who works for Continental AG, a German auto manufacturer, agreed. Although his team finished in fifth place, Tan said he learned leadership skills and the importance of planning and communication. He had the chance to think about what went wrong for his team, but he was enthusiastic about the experience because it provided a “risk-free platform” for testing competitive innovation strategies that he has learned about in classes.