EXPERIENTIAL LEARNING IN OPERATIONS MANAGEMENT
Fall 2018
Project 1: Low Cost Sourcing

Industry: fabricated metal product manufacturing

Sponsor has two initiatives related to lowering purchasing costs. The student team will work on both, possibly as two sub-teams.

1) Payment terms - Across this supply base, sponsor has a variety of payment terms in the contracts. Payment terms vary by region, supplier, and even within supplier depending on sponsor site. Payment terms directly contribute to sponsor’s cash flow. The purpose of this project is to analyze data on payment terms used at sponsor, evaluate these against others in the industry, and provide related recommendations.

2) Supply Chain Footprint – Sponsor currently sources a large amount of product from China for the Americas and Europe businesses. We also have a large manufacturing footprint in Mexico. With recent wage inflation in China, the overall benefit of sourcing from China appears to be bottoming out. This portion of the project is to conduct research comparing total cost projections for sourcing product from China vs Mexico vs other low cost countries.
Industry: biological services

- Sponsor Organization provides biological services such as mass spectrometry, liquid chromatography, and multidimensional gas chromatography to third parties conducting cellular research.

- The lab is experiencing a large backlog of work, unabated by the addition of more employees. Further, the lab’s profitability is too low, even though they have ample demand. The student team will do a root cause analysis, including workflow mapping, examination of financial data, and job shadowing to identify areas for improvement.
Project 3: Supply Chain Role Development

Industry: electrical equipment manufacturing

- Sponsor has experienced rapid growth in the last five years, from a small entrepreneurial company to a large organization with employees across the globe. While they have added personnel to scale up their operations, often the positions were created ad hoc to fill immediate needs.

- The student team will rewrite position descriptions for the supply chain group to make them both clearer and more in accordance with best practice roles and division of work. Students will have access to processes and procedures, existing position descriptions, and other relevant information.
Industry: amateur athletic association

Sponsor keeps elaborate statistics on member teams, and a complex rankings system is used to determine where leagues are ranked and which leagues will be invited to playoffs at the end of the competitive season or tournament(s). There are old and new challenges with our rankings system that needs to be evaluated and here are the area we would like to address, investigate, or determine about our systems that includes but not limited to:

- Encouraging teams to play for every single point, leading to blow-outs that disengage fans and a lack of development opportunities for a leagues players who are not “starters:
- Determining the appropriate rank/strength factor for teams new to the rankings
- Determining the accuracy of a team ranking in the remote geographical regions

Student team will look at statistics from previous years and benchmark against similar organizations to make recommendations on possible improvements.
Project 5: Blockchain Technology Review

Industry: third-party logistics provider

- Sponsor company carriers physical documentation to and from bank branches every day. The majority of the documentation is highly sensitive Personally Identifiable Information (PII). While lost bank packages are infrequent, even a few lost packages have huge ramifications. Understandably, banks maintain a high level of vigilance monitoring the progress on such packages.

- The current level of tracking information is lacking supplemental data critical for a bank to make the best decision possible when there is a potential issue. For this project, students will design a process for use by banks which will use Blockchain to improve the chain of custody throughout the entire life cycle of the branch shipment.
Introduction plan for new product

- Introduction plan for a new product which allows for detection of head trauma with a smart phone, the goal of the project is to complete a market assessment for the US market and identify strategic marketing initiatives that will lead to a successful product launch.

- Elements of the project should include:
  1) Target Markets
  2) Market Insights (including pricing analysis)
  3) Value Proposition (Marketing Message)
  4) Influence diagram
Latin American Opportunities

- Define opportunity in Latin American countries, with a focus on all of the product lines Scorpion has to offer. This may include country description, risk assessment, mode of entry, and financial measures such as ROI.
Inventec Performance Chemicals

- A significant opportunity exists to further globalize France-headquartered Inventec Performance Chemicals in the US by launching a cleaning business that has been built around sustainable business practices. Driven by an emerging US interest in safe cleaning chemicals, those that have been under strict European regulations are proven, and being sought out by US manufacturers whose leaders are interested in building more sustainable companies.

- Not only is there a growing need, but the viable market is sizable: US headquartered manufactures make up 33% of top 100 manufacturing companies globally and development of the US can benefit Inventec’s subsidiaries in both Asia and in Europe. Clear three-fold strategy focuses on extending European customers; helping substitute dangerous cleaners to improve overall business sustainability; and developing key industries such as aerospace, medical, electronics, and industrial, provides focus on tangible, quick success.