M&IS 84047Value and Supply Chain Management[1]: Syllabus

Department of Management and Information Systems

Kent State University, Kent, Ohio

Instructors

Drs. Alfred L Guiffrida and Pratim Data
Office: A-411, A-408
Office Hours: TBA
E-mail: aguiffri@kent.edu, pdatta@kent.edu

Course Objective

This course is a doctoral seminar designed primarily for students who seek an in-depth understanding of the current research literature in supply chain management and who are interested in doing research in supply chain management that compliments their studies in Information Systems and Human Resource Management. The seminar is designed into three four week modules as described below.

The first part of the course covers the design, operation, analysis and control of goods and service producing systems (both specific processes and overall supply chains) emphasizing a decision making and cross-functional approach. The design of every operation must begin with an understanding of the target market segment, the needs of the customers, and the product/service bundle to be offered. The operations function exists in financial procedures, manufacturing, new product development, retail sales, transportation, food service, entertainment, warehousing, health care, banking, auditing, and advertising, just to name a few examples. In every one of these settings, there are processes to create products and services for internal and external customers.

We will also focus on the evolution of Operations Management toward Sustainable Operations and Supply Chains. As the operations function is the key area for changing inputs to outputs, it has the most impact on the sustainability of an organization. How can we transform our conventional business approach from "manipulating abstract quantitative variables" in blind allegiance to maximizing profits into a learning organization approach that reshapes business operations into a means of creating wealth that fits our finite planet? Through this lens, this course provides an overview of issues facing operations managers in service and manufacturing companies.

We will study the methods organizations use to **create value** for customers through five operating priorities**: quality, cost, time, flexibility,** and **sustainability** *(environmental, social, and long term economic).*

The 1st 4-weeks will focus on building the concept base for understanding Value Chains and Supply Chains from a variety of disciplines including, OR, Costing, Strategy, IS and ON.

[1] Adapted from and Courtesy of UTD, Rutgers and UMD

The 2nd 4 Weeks will focus on the basics of models and topics including: (i) decision models for supply chain performance measurement, (ii) optimization and Monte Carlo simulation methods for multi-echelon supply chain chains, (iii) justifying continuous improvement in supply chain operations, and (iv) closed-loop supply chains.

The 3rd 4-6 weeks will focus on integrating the concepts and models to formulate your own research and hypotheses. In these weeks, students will focus on synthesizing research to propose, present and submit a research article.

Learning Objectives

1) Understand the role of supply chains in creating value for organizations competing in the manufacturing and service sectors.
2) Understand how sustainable and green practices impact supply chain management.
3) Understand how supply chain management is integrated with related disciplines such as information systems, human resource management and operations management.
4) Gain an understanding of current research problems in supply chain management.
5) Define, design and implement a research project in supply chain management that can lead to a peer-reviewed research paper

Class Materials

i) Lecture Notes in Value and Supply Chain Management by Drs. Guiffrida and Datta
ii) Readings in Supply Chain Management (see list below):

Readings for Weeks 1-4.

1. Anand, K. & Goyal, M. Strategic Information Management Under Leakage in a Supply Chain. Management Science March 2009 vol. 55 no. 3 438-452.
2. Hart, Stuart (1997) "Beyond Greening: Strategies for a Sustainable World" Harvard Business Review, Jan-Feb, 1997 pg 66-76
3. Porter, M, and van der Linde, C (1995) " Green and Competitive: Ending the Stalemate" Harvard Business Review, Sept-Oct 1995 pg. 120-124
4. HBS Case 9-607-003 "Cradle-to Cradle Design at Herman Miller" 2009
5. Darden Case UV0814 "Nike: Moving down the sustainability track through chemical substitution and waste reduction" 2006
6. HBS Case 9-907-414 " McDonald's Corporation: Managing a Sustainable Supply Chain" 2007
7. Darden Note UV2048 "Green Supply Chains" by Andrea Larson, Oct. 21 2009
8. Developing a Theory of Reverse Logistics (Dowlatshahi, S), Interfaces, Vol. 30, No. 3, , 2000, pp 143-155.
9. Information Distortion in a Supply Chain: The Bullwhip Effect (Lee, H., V. Padmanabhan & S. Whang), Management Science, Vol. 50, No. 12, 2004, pp 1875-1886.
10. Guajardo, J.A., M. Cohen, S. Kim, S. Netessine 2012. “Impact of Performance Based Contracting on Product Reliability: An Empirical Analysis.” Management Science, 58 (5): 961-979.

11. Bechtel, C., Jayaram, J., 1997. Supply chain management: a Strategic perspective. The International Journal of Logistics Management 8 (1), 15–34.
12. Cavinato, J., 1992. A total cost/value model for supply chain competitiveness. Journal of Business Logistics 13, 285–301.
13. Bose, I. and Pal, A. 2005. Auto-ID: managing anything, anywhere, anytime in the supply chain. Commun. ACM 48, 8 (August 2005), 100-106.
14. Chatain, O. (2011), Value creation, competition, and performance in buyer-supplier relationships. Strat. Mgmt. J., 32: 76–102.

Readings for Weeks 5-8.

15. Melnyk, S. Davis, E., Spekman, R., & Sandoe J. (2010) "Outcome driven supply chains," Sloan Management Review, 51(2), 33-38.
16. Gunasekaran, A. C., Patel, C. and R. E. McGaughey (2004). "A framework for supply chain performance measurement". International Journal of Production Econom*ics,* 87(3), 333-347.
17. Gunasekaran, A. C., Patel, C. and E. Tirtiroglu (2000) "Performance measures and metrics in the supply chain environment," International Journal of Operations and Production Management, 21(1/2), 71-97.
18. Lockamy, A. and K. McCormack (2004). "Linking SCOR planning practices to supply chain performance," International Journal of Operations and Production Management, 24(12), 1192-1218.
19. Kumar, S. & Arbi, A. (2008) "Outsourcing strategies for apparel manufacturing: a case study," Journal of Manufacturing Technology Management, 19(1), 73-91.
20. Fransoo, J. C. and Wouters, M. (2000). "Measuring the bullwhip effect in the supply chain," Supply Chain Management: An International Journal, 5(2), 78-89.
21. Guiffrida, A. L., Jaber, M. Y. and R. A. Rzepka (2008) "An Economic Model for Justifying the reduction of delivery variance in an integrated supply chain," Information Systems and Operational research (INFOR), 46(2), 147-153.

Grading Policy

The grades for the course will be based on class participation, paper reviews, and a final student research paper. The weighting for each component will be as follows:

Class Participation	20%
Paper Reviews and Presentation	40%
Final Paper	40%

Class Participation will be evaluated based on the extent to which each student contributes meaningful comments to class discussion. Paper Reviews will be graded based on extent to which the presenter has attempted to understand and explain their assigned paper from the literature. Each student will be assigned 2-3 papers to present to the class. The goal of the Final Paper is to prepare original research paper that can be submitted for academic journal publication.

Course Withdrawal

The course withdrawal deadline is Sunday November 3, 2013.

Course Prerequisites and Enrollment Requirements

Prerequisites: Enrollment in a doctoral program in the University

Enrollment: Students have responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule (using Student Tools on FlashLine) during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule, you have until Sunday, September 8, 2013 to correct the error. If registration errors are not corrected by this date and you continue to attend and participate in classes for which you are not officially enrolled, you are advised now that you **will not** receive a grade at the conclusion of the semester for any class in which you are not properly registered.

Academic Integrity

We will follow the University Policy on Academic Integrity. Academic honesty: Cheating means to misrepresent the source, nature, or other conditions of your academic work (e.g., tests, quizzes, papers, projects, homework assignments) so as to get undeserved credit. The use of intellectual property of others without giving them appropriate credit is a serious academic offence. It is the University's policy that cheating or plagiarism result in receiving a failing grade (0 points) for the work or course. Repeat offences may result in dismissal from the University.

Students with disabilities

University policy 3342-3-18 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through the Student Accessibility Services (contact 330-672-3391 or visit www.kent.edu/sas for more information on registration procedures).