



# University of Management and Technology

## **School of Business and Economics**

Course Title: Supply Chain Performance  
Course Code: SM473  
Prerequisites: *OM-345 (Operations Management)*  
Department: Operations and Supply Chain

### **CAPSULE STATEMENT**

To successfully manage today's complex supply chain (SC) environment, managers need an understanding of traditional business functions and the linkage of these functions to customers and suppliers. They must understand not only the processes that drive their own organization, but also those that guide suppliers' and customers' businesses. Supply chain management involves the integration of business processes across organizations, from material sources and suppliers, through manufacturing and processing, to delivery to the final customer. Managing Supply Chains in the modern dynamic era requires a focus on the systems approach of managing the inputs and outputs within an organization.

Performance measurement has always been an important area for the organizations. The increased attention towards managing supply chains efficiently and effectively in the recent times requires that performance measurement systems be developed so as to measure this efficiency and effectiveness at the SC level. Supply Chain Performance (SCP) is defined as;

Extended supply chain activities in meeting end-customer requirements, including product availability, on-time delivery, and all the necessary inventory and capacity in the supply chain to deliver that performance in a responsive manner. Supply Chain Performance crosses company boundaries since it includes basic materials, components, subassemblies and finished products, and distribution through various channels to the end customer. It also crosses traditional functional organization lines such as

procurement, manufacturing, distribution, marketing & sales, and research & development. (Hausman, 2004)

This course provides an overview of various SC Performance measurement models. Participants of this course will also learn about various practices that have direct impact on SC performance.

### LEARNING OBJECTIVES

Upon successful completion of this course, the participants will be able to:

1. Gain an appreciation for the complexities of supply chains—in modeling, measuring, implementing, and understanding their contribution to strategy and supply chain performance
2. Understand the different models for supply chain performance measurement
3. Develop/evaluate performance of supply chains
4. Develop an understanding about some critical drivers that impact supply chain performance
5. Develop an understanding about ethical issues such as the harmful impact of SC activities on the environment and societies and how to respond to these issues

### LEARNING METHODOLOGY

Lectures	In-class Skill Development Exercises	Presentations
Computer Software Tools	Case Studies	Textbook

### COURSE ASSESSMENT

Quiz .....	10%
Assignments.....	15%
Class Participation .....	10%
Presentation.....	5%
Final .....	60%

### REQUIRED TEXT BOOK

1. Supply Chain Management 6<sup>th</sup> Edition by *Chopra & Meindl*

## **SM473 SUPPLY CHAIN PERFORMANCE CLASS POLICY**

### **ATTENDANCE**

You need to be at class at the assigned time. A minimum of 80% attendance is required for a participant to be eligible to sit in the final examination. Being sick and going to weddings are absents and will not be counted as present. You have the opportunity to use 6 absences out of 30 classes. Participants with less than 80% of attendance in a course will be given grade 'SA' (Short Attendance) and may not be allowed to take the end term exams. International students who will be leaving for visa during semester should not use any days off except for visa trip. Otherwise they could reach short attendance.

### **PARTICIPATION**

Each course participant shall be expected to participate fully in class activities. You will be expected to contribute significantly to in-class analysis and discussion of readings and case studies.

Ways to effectively contribute include:

- Actively participating the class discussions and exercises
- Responding to questions
- Asking questions that lead to revealing discussions
- Participating in class exercises

*Please avoid coming late, leaving class during discussion or lecture, and using mobile phones in class.*

### **TEAM WORK**

Teamwork is a very important part of your learning experience and you are expected to learn to do tough assignments in teams and meet the deadlines and quality standards. The assignments during the course will be based on the group work unless otherwise specified. It is recommended that all students should equally participate in the group assignments in order to avoid undue burden on some group members. If due to any (genuine) reason any member of the group is unable to participate in the assignment, this member should contact me BEFORE the class personally or through email. Please avoid writing the names of the participants on the assignments if they have been unable to participate.

### **ASSIGNMENTS**

Group and/or individual assignments may be assigned related to each session. Assignments are to be uploaded on **Moodle** before the deadline. No late submissions are allowed. In case of any genuine problem you (or any of your team members) need to contact me **before** the deadline for time extension.

## **QUIZZES**

1. Quizzes are usually taken unannounced
2. From a total of (n) quizzes, best (n -1) quizzes may be considered for the final grade.
3. No make-up quizzes will be allowed.

## **USE OF MOBILE PHONES AND OTHER ELECTRONIC DEVICES**

1. Use of mobile phones and any other electronic device (except calculators) is prohibited during the class time.
2. All mobile phones should be turned-off and secured in pockets or bags during the class time, and may not be used for ANY purpose, including calculations, time-keeping, etc

## **EMAIL**

In order to contact me through email give me at least 24 hours to respond. You will receive my emails on the address you use to log in to Moodle. It will be your responsibility to check this email at least once a week for any possible announcements regarding the next class.

## **MOODLE**

It is mandatory for every participant to join the course on Moodle. All the handouts and announcements related to the next week/current week classes will be posted on the course page. Make sure that you visit the course page at least once during the week.

## **COUNSELING HOURS**

Counseling hours will be displayed on the office door and Moodle course page after the first week. Please follow the displayed timings for your visits. In case you need time other than the counseling hours, you may also take the appointment through email.

## SM473 SUPPLY CHAIN PERFORMANCE COURSE CONTENTS

Week	Topics	Chapters	Learning Outcomes	Activities	Assessment Tools
1	Managing performance of Supply Chains	<b>1, Handouts</b>	Brief history of SCM, Developing a basic understanding about SCs and SCM, how to evaluate the performance of SCs	Introduction, Lecture Discussion	Class Participation
2	Supply Chain Performance: Achieving Strategic Fit	<b>2</b>	Understanding the role of strategic fit in enhancing supply chain performance	Lecture, Presentation, Discussion	Class Participation
3	Supply Chain Performance: Achieving Strategic Fit Contd..				Assignment, Quiz
4	Drivers of Supply Chain Performance	<b>3</b>	Understanding the drivers that lead to higher supply chain performance.	Lecture, Case Discussion	Class Participation Assignment,
5	Aggregate Planning in Supply Chains	<b>8</b>	Understanding the role of Aggregate production planning in SCs and the role of various strategies for aggregate planning	Lecture, Presentation, Skill Development Exercise (SDE)	Presentations, Class Participation
6	Inventory and SCP: The Role of Cycle inventory	<b>11</b>	Developing inventory control policies in the situations where; Demand is certain	Lecture, Presentation, SDE	Presentations, Assignment
7	Inventory and SCP: Comparing Independent and Joint Ordering Strategies	<b>11</b>	Evaluating the role of Independent and Joint Ordering Strategies on SCP	Presentation, Lecture, SDE	Presentations, Assignment, Quiz
8	<b>MIDTERM EXAM</b>				
9	Inventory and SCP: The Role of Safety Inventory	<b>12</b>	Developing inventory control policies in the situations where; Demand is uncertain	Lecture, Presentation, SDE	Class Participation
10	<b>INDUSTRIAL VISIT / GUEST SPEAKER</b>				
11	Determining the optimal level of product availability	<b>13</b>	Importance of level of product availability and factors affecting it	Lecture, Presentation	Presentations, Class

				Discussion	Participation, quiz
12	Miscellaneous Supply Chain Models for Performance Improvement: Accurate Response, VMI, and CPFR	<b>Handouts</b>	Students will learn, how to design distribution networks according to different responses required by the customers	Lecture, Presentation, Discussion	Presentations, Assignment
13	Performance measurement, benchmarking the supply chains, SCOR model and aligning incentives	<b>Handouts</b>	Understanding the importance of measuring the performance of supply chains on continuous basis	Lecture, Class Discussion	Class Participation
14	Use of Information Technology in Supply Chains, Ethical Issues in SCM	<b>18</b>	Understand the significance of information flows and its impacts on supply chain performance, Ethical issues faced by SC Managers and how to tackle these issues	Lecture	
15	<b>PROJECT PRESENTATIONS</b>				