

Indian Institute of Management Udaipur

Course name	Supply Chain Management		
Program	PGP	Core/Elective	Elective
Credits	4	Cap (if elective)	None
Academic Year	2022-23	Term	1
Course Coordinator		Email	

Instructor 1	Mr. Venkatramanan Krishnamurthy	Email	Venkatr74@gmail.com
Sessions	16	Section	1
Affiliation	Independent Consultant. Associated as Visiting Faculty at IIM-Indore, IIM-Kozhikode. Conduct workshop modules at ISB-Hyderabad and ISB-Mohali.		
Office Hours			

Instructor 2	Prof. Sayantani Roy Choudhury	Email	sayantani@praxis.ac.in
Sessions	4	Section	1
Affiliation	Associate Professor, Praxis Business School		
Office Hours			

Course description

Companies now compete on the excellence of their supply chains. In today's business world companies are exploring ways to become responsive and cost-effective simultaneously. The cost of managing the supply chain is substantial and sometimes as high as 40% of the total value-added in certain industries. A marginal reduction in the cost of operating the supply chain could lead to a more competitive pricing of products resulting in higher market share. Improvement in fill rates and reach will

significantly increase the competitive advantage. Understanding the basics of a supply chain is therefore more important than ever.

Course Objectives

To give students an understanding of the strategic and operational principles of SCM that enable the companies to serve the customer better. These include the strategic foundations of a supply chain (what type of supply chain is "right" for your product?), the various fundamental operational concepts such as inventory, aggregate planning, network design, transportation management etc.

Specific learning objectives for the participants in this course are as follows:

- How companies have created competitive advantage through supply chain?
- Evaluate supply chain based on the nature of the industry and product characteristics.
- Analytical tools to take supply chain decisions.

Programme Level Learning Goals

The course aims to help students achieve the following learning goals

Goal 1: Ability to integrate across business disciplines: Students should be able to apply frameworks from different business disciplines.

- **Identify and make connections across functional areas when looking at a business problem.**

Goal 2: Critical Thinking: Students should be able to identify and analyze key issues and evaluate alternative solutions.

- Identify the relevance and importance of issues. Accurately identifies the core issue.
- Provide solutions by integrating ideas and using the available evidence.

Goal 3: Team Dynamics: Students should be able to work as part of a team.

- Contributes outside of team meetings:* Provide solutions by integrating ideas and using the available evidence. Completes all assigned tasks by deadline; work accomplished is thorough and comprehensive.
- Contributes to team meetings:* Helps the team by articulating the merits of alternative ideas or solutions. Offers thoughtful and constructive ideas and suggestions. Actively builds on ideas of team members. Articulates merits of alternative ideas and suggestions.

- c. *Facilitates the contributions of team members*: Engages team members to facilitate their interaction and constructively builds upon their contribution. Encourages others to participate and complete assigned tasks to a similar level of excellence.

International components of the course (if any)

Harvard Cases as mentioned in the course outline

Pre-requisites

No specific pre-requisites. Since the course will be offered in the second year, basic first year courses are adequate.

Required Text Book(s):

Supply Chain Management: Text and Cases – By Janat Shah

Recommended Text Book(s)

- Supply Chain Management – Strategy, Planning and Operations – By Peter Meindl and Sunil Chopra
- Supply Chain Management – Concepts and Cases – By Raghuram and Rangaraj

Pedagogy

Lectures, Discussions of Cases, and In-class Exercises

Course Pack Distribution to students

Course material (if required) will also be issued from the Programme office. Additional course material may be shared during the course.

Technology enabled learning component for your course

Students will be required to play Simulation game and various excel tools.

Class Preparation, Participation, and Presentation

Pre-reads and Case preparation.

Session Plan

Session No.	Module Name	Intended Learning Outcome	Readings	Case
1,2	Introduction to Supply Chain Management	Importance and Various aspects of SCM, Components, What type of supply chain is suitable for a particular product	<ul style="list-style-type: none"> • Fischer, What is the Right Supply Chain for your Product?, HBR March-April 1997 • Chapter 1 of the Text Book 	Seven – Eleven Japan Co. (KEL026)

3	E-Commerce Supply Chain	Overview of Indian E-commerce industry and it's Supply Chain issues	<ul style="list-style-type: none"> • Crisil Research Reports and media reports on Indian E-commerce industry 	<ul style="list-style-type: none"> • Big Basket.com : Redefining the Business Model (A00151)
4	Supply chain Strategy and its impact on Long-term Competitiveness	Choice of Strategy and it's impact on Consumer proposition, Operational Efficiency, Long-term competitiveness and Profitability.	<ul style="list-style-type: none"> • Chapter 9 of the Text Book 	<u>OCADO: A SUCCESSFUL ONLINE GROCERY BUSINESS MODEL?</u> (IMD551-PDF-ENG)
5	Warehouse Performance Improvement	Key warehouse processes, metrics to measure the warehouse performance, typical challenges in Indian warehousing context and approach to manage the challenges	<ul style="list-style-type: none"> • Lee, The Triple-A Supply Chain, HBR October 2004 • Chapter 2 of the Text Book 	Warehousing at Savemart
6	Channel Structure and impact on SCM	How adding or removing a layer impact the supply chain performance?	<ul style="list-style-type: none"> • Chopra, Designing the Distribution Network in a Supply Chain, Transportation Research Part E 39 2003, pp123-140 	KPL case
7,8	Basics of Transportation, Inventory and Warehousing	Calculation of Transportation, Inventory and Warehousing Costs, Factors affecting the levels of inventory, Benefits and Disadvantages of Low inventory, Relation between number of warehouses and transportation costs, Relation between number of warehouses	<ul style="list-style-type: none"> • Chapter 4 of the Text Book • Chapter 10,11,12 of the Reference Book • Lee, Aligning Supply Chain Strategies with Product Uncertainties CMR, Spring 2002 	Class Exercises

		and inventory costs, Framework to decide more or less number of warehouses, Impact of Variery of LSCM, Commonization and Delayed Differentiation		
9	Supply chain Decision considering total costs	Integrated Decision on Transportation considering both transportation and inventory costs	<ul style="list-style-type: none"> Chapter 4 and 5 of the Text Book 	Pashu Kadya Company Limited
10	Supply Chain Simulation Game	During the simulation experience, students design the product line, forecast demand, choose a set of suppliers with different costs, lead-times and capacities, and allocate production among their chosen suppliers.	<ul style="list-style-type: none"> Chapter 9 of the Text Book 	<u>Global Supply Chain Management Simulation V2</u>
11,12	Supply Chain Analytics and Statistical Tools in Decision Making	Growing importance of Supply Chain Analytics, Basics of Analytics, Getting insights from Data and application of Statistical Tools	<ul style="list-style-type: none"> Supply Chain Analytics by Gilvan C. Souza Unleashing the Potential of Supply Chain Analytics by Melissa R. Bowers, Adam Petrie, Mary C. Holcomb How to Use Big Data to Drive Your Supply Chain by Nada Sanders 	Harmonizing Demand Forecasting and Supply at Mahindra & Mahindra Class Exercises and Discussions

13, 14	Time series Forecasting, applications of machine learning algorithms in SCM	How to forecast the demand using various model, Quantitative techniques for short-term and medium term	<ul style="list-style-type: none"> Chapter 7 of the Text Book 	Supply Chain Analytics to Manage Blood at VHS Blood Bank
15	Inventory Case	Comprehensive Case on improving inventory management	<ul style="list-style-type: none"> Fisher et al, Making Supply Meet Demand in an Uncertain World, HBR May-June 1994 	Lotus Thread Company Limited
16	Network Design in Supply Chain	Role of Network in Supply Chain, Factors influencing network design decisions, Framework for Network Design decisions, Models for facility location and capacity allocation	<ul style="list-style-type: none"> Chapter 6 of the Text Book Chapter 5 of the Reference Book 	Class Exercises
17	Aggregate Planning in Supply Chain	How best to use a company's resources – capacity, materials and people over an intermediate time scale – to satisfy demand.	<ul style="list-style-type: none"> Chapter 8 of the Reference Book 	Wilkins: A Zurn Company: Aggregate Production Planning (Ivey 906D17)
18	Setting up an Agricultural Supply Chain	Supply Challenges of an MNC in entering Indian market	<ul style="list-style-type: none"> McDonald's Pursuit of the Perfect French Fry - Bloomberg https://www.bloomberg.com/news/articles/2012-04-19/mcdonalds-pursuit-of-the-perfect-french-fry 	McDonalds India : Optimizing the French Fries Supply Chain

			<ul style="list-style-type: none"> McDonald's to open first vegetarian outlets https://www.ft.com/content/dddc0dd6-f66e-11e1-9fff-00144feabdc0 	
19	Managing Innovation Networks in Firms	How to transfer learnings/innovation from one part of an organization to another	<ul style="list-style-type: none"> Bower & Christensen, Disruptive Technologies: Catching the Wave, HBR, January-February 1995 (Product # 95103-PDF-ENG) 	Managing Innovation at Nypro, Inc (HBS 9-696-061)
20	Presentations	Group Presentation of the assignments	Presentations	

Evaluation Components

Components	Weightage
Class Participation	20
Case Analysis	20
Assignment	20
Simulation	20
End Term	20

Online Course Management (Moodle)/course web

Additional course materials, power point slides, tutorials and assignments are shared in the course web by respective instructors after the corresponding classes, as and when required.

Mapping for the course with Program Level Goals

Goal 1	Goal2	Goal 3	Goal 4	Goal 5	Goal 6
Ability to integrate across	Critical Thinking	Team Dynamics (a,b,c)	Communications Skills (Oral) (a,b,c)	Communication Skills (Written) (a,b,c)	Ethical Responsi (a,b)

business disciplines					
1,2,3,4,5,6	11,12,13,14,15,16	7,8,9,10,17,18,19,20			