

XAVIER INSTITUTE OF MANAGEMENT, BHUBANESWAR

Xavier University, Bhubaneshwar

Course	Supply Chain Management
Program	EMBA
Batch	2022-2023
Term	4
Credits	3.0
Instructor(s)	Dr. W S. William

1.0 Course introduction and objectives:

1.1 Course introduction:

We consume a variety of products and services on a regular basis. If we take a closer look at how these are produced and eventually delivered to you, you will realize that each step in this process is meticulously planned, executed, and controlled for ensuring a high degree of customer satisfaction. Let us take the example cornflakes. To make cornflakes available on your breakfast table numerous functions, activities, transactions and people are involved in planting, cultivating, processing and delivering it to the consumers. All these activities are integrated as a chain or a maze of connected flows through which physical products, information and fund flows back and forth all the time. Thus, supply chain involves four primary actors: supplier, manufacturer, distributor and finally consumer. The goal is to maximize value creation through effective coordination among various actors.

This course is designed to deepen the understanding of students pertaining to the factors that go into designing and sustaining excellence in supply chain. The course design leverages discussion forum, case studies, and videos, interactions with industry practitioners to enhance both conceptual and practical aspects of the supply chain management. The content for this course is designed to include emerging trends in supply chain.

1.2 Course objectives:

- Understand the role of supply chain in organization's competitiveness and the key phases in the supply chain.
- Identify the major drivers of supply chain performance.
- Understand, formulate, analyze and solve real world supply chain problems.

- Recognize the risk in managing the supply chain and also appreciate the importance of sustainability while designing supply chains.

2.0 Major course content:

- Understanding the importance of supply chain
- Achieving strategic fit in a supply chain
- Supply chain drivers and metrics
- Network design in the supply chain
- Bull-whip effect and supply chain coordination
- Managing economies of scale in a supply chain (cycle inventory)
- Managing uncertainty in a supply chain (safety inventory)
- Emerging technologies (IIoT, 3D, Blockchain) in Supply Chain
- Transportation in a supply chain
- Sourcing decisions in a supply chain
- Sustainability and closed loop supply chain

3.0 Course learning outcomes (CLO):

- CLO1:** Be able to understand the fundamental concepts of supply chain.
- CLO 2:** Be able to understand and analyze supply chain problems.
- CLO3:** Be able to exhibit voluntary cooperation and teamworking attributes in a group setting to solve supply chain problems jointly and present the findings in the class, and submit a soft copy of the report.

4.0 Reading and references:

- Textbook: Chopra Sunil, Meindl Peter, and Kalra, D, “Supply Chain Management, Strategy, Planning & Operation”, Pearson, 7th Edition.
- Reference Books:
 - Simchi-Levi David, Kaminsky Philip, Simchi-Levi Edith and Shankar, Ravi, “Designing & Managing the Supply Chain, Concepts, Strategies & case studies”, Tata McGraw Hill, 3rd Edition.
 - Ballou Ronald H, & Srivastava Samir K., “Business Logistics/ Supply Chain Management.”, Pearson, 5th Edition.
- E-book: Selected readings, case study and exercises (prepared by the instructor)

5.0 Pedagogy and student’s workload:

The pedagogy will include delivery methods like; lecture, case study, journal articles, quantitative problems and projects. Students are expected to read the given class materials, solve assignments and solve problems on their own. It is expected that students should spend around 5-6 hrs per week of time for this subject outside the classroom.

6.0 Tentative session plan:

Session	Topic	Session Learnings	Reading Materials
1,2 and 3	Introduction to Supply Chain Understanding the Supply Chain	Supply Chain - Past, Present and Future Supply Chain Perspectives	Teaching Notes Text Book Chapter-1 Reading: Zara (page-17)
4	Achieving Strategic Fit in a Supply Chain Supply Chain Drivers and Metrics	Discusses the need to align strategy with supply chain capabilities. Defines key drivers of supply chain performance and associated performance metrics.	-Textbook Ch- 2 and 3 Teaching Notes
5,6	Network Design in a Supply Chain	Presents analytic models that support network design. Formulation and analysis of network design having multiple objectives	Cases: HBR Case: Bloomex CA Textbook Case: Coolwipes
7	Demand Management Basics of Sales and Operations Planning (S&OP)	Understand how to manage supply and demand Get to know how S&OP can be used to maximize profit	Textbook: Ch-9
8	The Bullwhip effect and Coordination in the Supply chain	Discusses obstacles to coordination and managerial levers that help improve coordination in a supply chain.	Teaching Notes Textbook-Ch-10
9,10 and 11	Managing Economies of Scale in a Supply Chain – Cycle Inventory Managing Uncertainty in a Supply Chain – Safety Inventory Optimal level of product availability – News Vendor Problems	Introduces methodologies to obtain optimal batch sizes and discusses managerial levers that help reduce cycle inventory without hurting costs. Introduces methodologies to obtain safety inventory and discusses managerial levers that help reduce safety inventory without hurting product availability Identify factors affecting the optimal level of product availability and use managerial levers to improve profitability	-Text Book Chapter 11, 12 and 13 Selected Numerical Exercises from textbook -
12	Transportation and Supply Chain logistics	Discusses managerial levers that help increase profits in a supply chain. Discusses options and tradeoffs when designing a transportation network	- Teaching Notes Exercises
13,14	Sourcing Decisions in a Supply Chain	Introduces the concept of total cost in the context of sourcing and discusses the benefits of sharing risk and reward in a supply chain.	-Teaching Notes: E-book. Case: Avion Corp.
15	Emerging Technologies and Digital Supply Chain	Get to know how emerging technologies such as IIoT, 3D manufacturing, Blockchain etc are increasingly used in supply chain design	HBR Articles Selected blogs and Podcast
16	Supply Chain and Circular Economy	Circular economy and sustainable supply chain Learn about cradle-to-cradle supply chain	Selected articles Case examples
17	Managing risk in supply chain – making supply chain more resilient	Understanding of different risks in handling the supply chain and the frameworks to develop the resilience.	Selected blogs and articles
18	Guest Lecture (Topic to be decided)	Meeting present and future challenges in supply chain design and deployment	Materials may be provided by the guest faculty
19 & 20	Group Presentation by Students	Learn about new ideas and best practices of industry.	-Selected topics chosen by the groups

8.0 Group project: Details will be given separately

9.0 Assessment scheme:

Component	Weightage (%)	Assessment of course learning outcome(s) (CLO)
Quizzes (two @ 15% each)	30%	CLO1
Blog presentation	10%	CLO1
End-Term	40%	CLO2
Group project presentation	20%	CLO3

10.0 Academic discipline and integrity:

- Students are expected to come to class on time.
- Students are expected to join the class with prior preparation and having done assigned pre-readings.
- Students are expected to submit assignments on time.
- Late coming involves the penalty of no attendance, or sometimes barring from the class, if the reason for coming late is found not satisfactory.
- Utmost care will be taken to *maintain class decorum*, *follow the exact evaluation norms*, *conduct fair examinations*, fair and transparent evaluation of examination papers, etc.
- **Please be present for every online quiz. The quiz dates will be announced in advance and it is your responsibility to appear on the date of quiz. Request for make-up quiz will not be entertained at all.**
- **If a student misses Quiz-I, his/her Quiz-I marks will be worked out on the basis of Quiz-II marks. If any student misses Quiz-II, his/her Quiz-II marks will be decided on the basis of end-term marks.**

11.0 Mapping course learning outcomes (CLO) with the program learning goals (PLG):

PLG#	Program Learning Goal	Trait	Addressed by Course	
			Yes	No
PLG1	Functional and Business Skills	The students will demonstrate understanding of elements of supply chain management	Yes	
PLG2	Analytical Skills	The students will use analytical techniques to identify a supply chain business problem, and suggest a solution	Yes	
PLG3	Collaboration and teamwork attributes	The students will exhibit voluntary cooperation and effective teamwork in a group setting while working on a group-project.	Yes	
PLG4	Ethical responsibility	The students will understand the ethical complexities of conducting business. The students will adopt techniques in scenarios involving ethical dilemma and offer resolution	Yes	

PLG5	Communication	The students will produce reasonably good quality business document as part of the SCM course requirements. The students will become effective and confident communicators, by presenting their views in the class and making the group presentations.	Yes	
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