

Programme: MMS/PGDM Semester: III/IV Period: August '20 – November'20

Course Code: MMS

Name of the subject: Supply Chain Management

Maximum marks: 100 (60+40) No. of Sessions: 13/14 (3 hrs each)

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Program Outcomes (PO)

- **1.** Integrate and apply business knowledge and management techniques for problem-solving / analytical skills.
- **2.** Demonstrate decision-making ability.
- **3.** Ability to develop culture of technology-usage.

Course Outcomes (CO)

- **1.** To explore the major elements and concepts of supply chain
- **2.** Student should be able to measure and evaluate performance of supply chain
- **3.** Student should be able to design supply chain networks and should be able to handle issues and challenges in supply chain
- **4.** Design supply Channels for different products, Customers, Business

Reference Books:

- 1. David Simchi-Levi, phillip Kaminsky, Designing and Managing Supply Chain, Tata McGraw-Hill publication, 2013
- 2. Sunil Chopra, Peter Meindl, D V Kalra, Supply Chain Management, Pearson publications, Fifth Edition
- 3. Martin Christopher: Logistics and Supply Chain Management, Tata McGraw-Hill, 2013
- 4. S N Chary:Theory & Problems in Production & Operations Management, Tata McGraw Hill, Edition 4
- 5. Kanishka Bedi: Production & Operations Management, Oxford University Press, 2012
- 6. B.Mahadevan, Operations Management, Pearson Publication, 2010

A. Plan:

Sessio n No.	PI. Date	<u>Topic</u>	Ref. Study Material	<u>Course Outcomes</u>
1	05.0	Introduction to the supply chain	Sunil Chopra,	Understand the basic
	8.20	What is a supply chain? Decision	Peter Meindl,	concept of supply chain
	20	phases in a supply chain. Demand	D V Kalra,	and learn decision
		and capacity variations and	Supply Chain	making points of the
		strategies.	Management,	same.
		Supply Chain Basic Decision-	Pearson	
		Making Model	publications,	
		Achieving strategic fit.,	Fifth Edition	
		Supply Chain and Demand chain,	(Page 2-22)	



	1	Academic Tear (2)		T
2	12.0 8.20 20	Bullwhip Effect, Concept of Bullwhip Effect Logistics Competitive advantage and three C, Competitive advantage through logistics. Logistics-A system concept, Customer value chain, Logistics functions. Logistics Mission, Objectives, Goals, Decisions. Reverse Logistics.	Example: Dell Corporation on obtaining Strategic Fit Online Source: www.washbur n.edu/sobu/bro ach/bu347/bull whip.xls Martin Christopher: Logistics and Supply Chain Management, Tata McGraw- Hill, 2013	To Understand how to measure the effect of bullwhip phenomena and understanding the concept of logistics
3	19.0 8.20 20	Warehousing and Distribution Case Study of Flipkart Warehouse, Inviting Flipkart Executive for Student Interaction. Role of warehouse in Logistics, Warehousing functions, Types of Warehouses Warehouse site selection, Layout design, Warehouse Decision model. Warehouse automation, strategies, performance, costing. Distribution, Role, Importance, Levels, Channels, Structure, Functions. Channel partners, functions, Tasks, Flows, Strategy. Free trade zones and special economic zones. Risk Pooling	David Simchi- Levi, phillip Kaminsky, Designing and Managing Supply Chain, Tata McGraw- Hill publication, 2013 (page 215-249) Case study on Risk Pooling Reference: David Simchi- Levi, phillip Kaminsky, Designing and Managing Supply Chain, Tata McGraw- Hill publication Page: 49-50 News Article on Flipkart Warehouce	To understand Factors affecting the decision making in facility locations



		Academic Year (2)	020-2021)	
			management,	
			Economic	
			Times 2016	
4	26.0	Order Processing and Logistics	IOCL PO	Understand the Processes
	8.20	Information system	Material, GPC,	and Their importance
	20	Order Preparation, Transmittal,	TQ/CQ	1
		Order entry, Order filling, Order	Material	
		status reporting Industrial order	Source:	
		processing and Retail	Industry –	
		order processing. Web based order	IOCL Panipat,	
		1 0	Reliance Airoli	
		processing. Processing priorities.		
			Real	
			Documents	
			Collected from	
			Industry to	
			provide the	
			exposure to	
			students.	
5	10.0	Performance Measurement and	Sunil Chopra,	To understand the
	9.20	Controls in Supply Chain	Peter Meindl,	techniques and Methods
	20	Management	D V Kalra,	for performance
		Pre- transaction, Transaction,	Supply Chain	measurement
		Posttransaction elements, Service	Management,	
		attributes Value added customer	Pearson	
		service, Importance of Logistics	publications,	
		Customer service Sales and Service	Fifth Edition	
		relationship, Cost and	(Page 23-43)	
		Service relationship. Objective,	(1 age 25 15)	
		Levels, Parameters of		
		performance measures- Cycle time,	A ativity of	
		-	Activity of	
		Fill Rate. Inventory Turnover, On-	Designing the	
		time Shipping and Delivery, Perfect	criteria for	
		Order, Stock out.	Supply Chain	
		Transportation measurements,	Performance	
		Customer perception measure, Audit.	Measurement	
		Gap Analysis Concept of	Source:	
		Benchmarking, Benchmarking for	Research	
		Best Practices	Papers:	
		SCOR and DCOR	Emerald	
			Publishing	
			House, Scopus	
			Indexed	
6	17.0	Class Test and	Sunil Chopra,	Understand the
	9.20	Transportation	Peter Meindl,	advantages and
	20	Infrastructure, road, rail, air water,	D V Kalra,	disadvantages of
		pipeline. Freight Management,	Supply Chain	different means of
		Freight cost.	Management,	Transportation and using
			_	-
		Transportation Network Route	Pearson	optimum way to



Academic Year (2020-2021)						
		planning,	publications,	transport		
		Containerization, Packing.	Fifth Edition			
		Effective / Cost Optimizing	(Page 420-			
		Distribution	450)			
		strategies- Direct shipment, Cross-	,			
		docking,				
		Milk run, transshipment.				
7	24.0	Designing Logistics and	David Simchi-	Understand concept of		
'	9.20	distribution		_		
	20		Levi, phillip	designing the logistics		
	20	network in a supply chain	Kaminsky,	network		
		Applications to Online Sales	Designing and			
		Network Design in the SC	Managing			
		the role of distribution in the supply	Supply Chain,			
		chain. Importance of Smart	Tata McGraw-			
		Transportation Distribution Center	Hill			
		Concept, Modern DC's, Robotics	publication,			
		Usage for pick and pack	2013			
		Factors influencing distribution	(page 354)			
		network design.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
		Supply Chain Integration				
		Design option for a distribution	Beer Game			
		network.	and			
		Distribution network in practice.	discussions			
8	07.1	The value of Information	David Simchi-	I Indonstandina magandina		
0				Understanding regarding		
	0.20	Bullwhip effect. Effective forecasts.	Levi, phillip	which information is		
	20	Information for the coordination of	Kaminsky,	important and its analysis		
		systems.	Designing and			
		Collaborative Planning Forecasting	Managing			
		Replenishment (CPRF) concept.	Supply Chain,			
		Locating desired products. Lead time	Tata McGraw-			
		reduction.	Hill			
		Information and supply chain trade-	publication,			
		off.	2013			
		Designing the supply chain for	(page 419-451)			
		conflicting	,			
		goals.				
		0				
9	08.1	Strategic Alliances	David Simchi-	Understand various		
	0.20	A framework for strategic alliances.	Levi, phillip	strategic alliances like		
	20	Third		3PL, 4PL and their roles		
	20		Kaminsky,	31L, 41L and men roles		
		party / fourth party logistics.	Designing and			
		What are 3PL/4PL, Advantages and	Managing			
		disadvantages of 3PL, 3PL issues	Supply Chain,			
		and	Tata McGraw-			
		requirements?	Hill			
		Retailer supplier partnership. Types	publication,			
		of	2013			
		RSP, Requirements of RSP	(251-270)			
<u> </u>	l	1 , requirements of the	(201 2,0)			



	1	Academic Year (20	U2U-2U21)	Г
		Inventory ownership in RSP, Issues and		
		steps in RSP implementation		
		Advantages and disadvantages of RSP.		
		Distribution Integration		
		Types of and issues in Distribution		
		integration. Customer Value		
10	15.1	E-procurement and outsourcing	Online	To understand the
	0.20	Outsourcing benefits and risks. A	IOCL/reliance	framework of E-
	20	framework for Buy/Make decisions	E-Procurement	procurement
		E-procurement. A framework of E	Portal and	
		procurement.	Details on	
		Impact of Internet on supply chain	Tendering	
		strategies (E-business).	process. This Lecture will be	
			held in	
			Computer lab	
11	22.1	Designing Global Supply Chain	Sunil Chopra,	Understand the global
	0.20	Networks	Peter Meindl,	supply chain networks
	20	Global market / Technological/ Cost/	D V Kalra,	
		Political and Economic Forces.	Supply Chain	
		Risks and advantages of international	Management,	
		supply chain. International versus Regional products.	Pearson publications,	
		Local autonomy versus central	Fifth Edition	
		control. Regional differences in	(Page 159)	
		Logistics- Cultural differences/		
		infrastructure/ performance		
		expectation and evaluation		
		Information systems availability,		
		human resources. Global business		
12	29.1	logistics. Class test and	Sunil Chopra,	To understand the
	0.20	Performance Measurement and	Peter Meindl,	techniques and Methods
	20	Controls in Supply Chain	D V Kalra,	for performance
		Management	Supply Chain	measurement
		Measurement of a Robust Supply	Management,	
		Chain.Cost / Quality / Service	Pearson	
		Measurement Introduction and	publications,	
		concept of Benchmarking. Gap	Fifth Edition	
		Analysis. Key actions in benchmarking for best	(Page 23-43)	
		practices. Overview of Supply Chain		
		Operations Reference (SCOR)	Activity of	
		Modeling. Balance scorecard for		
		SCM.		



		Lean Manufacturing and Mass	Designing the	
		Customisation	Designing the	
		Customisution	criteria for	
			Supply Chain	
			Performance	
			Measurement	
			Source:	
			Industry	
			Material from	
			M/S Sundyne	
			Corporation	
			Criteria	
			Channel one	
			document	
13	05.1	Ethical issues in SCM	Sunil Chopra,	Understand Ethical
	1.20	Supply chain vulnerability.	Peter Meindl,	issues in supply chain
	20	Conformance to applicable laws such	D V Kalra,	
		as	Supply Chain	
		Contract and commercial laws,	Management, Pearson	
		Trade regulation, government procurement	publications,	
		regulations, patents	Fifth Edition	
		Copyrights, trademark laws,		
		transportation		
		and logistics laws and regulations		
		Environmental laws. International		
		practices. Confidentiality and proprietary		
		information.		
14	12.1	Current Trends in Supply Chain	SCM Pro	To make aware about
	1.20		Organization	current trends in supply
	20		manuals/Maga	chain
			zines	



B. Practical Approach: Other activities

Sr. No.	Activity Name	Topic Covered	Learning outcomes	Source
1	Learnbiz Simulation on Beer Game	Bullwhip Effect	To learn decision making on how much quantity to order as per the inventory level	Learnbiz Simulation
2	Role Play/activity- Beer Game	Bullwhip Effect	To make learner realise the bullwhip effect and importance of managing the inventory	Book: David Simchi-Levi
3	Case Study	Risk Pooling	Decision Making in Inventory and Warehouse Management	Book: David Simchi-Levi
4	Simulation-Excel	Measuring Bullwhip effect	How to Measure the bullwhip effect	www.washburn. edu/sobu/broach /bu347/bullwhip .xls
5	Business Quiz / Business News sharing	Economics Times Article on supply chain and logistics Quiz on MRP	To understand the decision making in supply chain and basic principles of MRP	http://highered. mheducation.co m/sites/0072983 906/student_vie w0/chapter16/m ultiple_choice_q uiz.html
6	Use of Softwares and Labs	Inventory Management	To understand the inventory planning systematically	Inventoria software

C. Innovative pedagogy adopted:

1	1	مءا ا	of 9	Simul	ation	Sa	ftwara	in	tarme	٥f	Games
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- 2. Use of Microsoft Excel and Data Analysis Tab
- 3. Various activities such as 5ps through playing cards

Prepared by: Faculty	Approved by: Specialisation He	
Date:	Date:	



A. Execution:

Session No.	Actual Date	Topic Covered	Attendance %	Evaluation Method	Case Study Ref.	Quiz Ref.	CR Sign
1							
2							
3							
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<u>12</u>							
<u>13</u>							

B. Evaluation:

Component	Details	Marks
Presentations & Viva	Mandatory	5+5
Class Test (3 for MMS)	Mandatory (MCQ, Descriptive, Etc)	20
Assignments / Others	Mandatory	5
Participation/Attendance	Mandatory	5
Final Exam	Mandatory	60

Comments / Suggestions / Recommendations:

Suggestions (if any) to students on subject related Certificate/Diploma or Add-on program: -

Signature of Faculty

Signature of Co-ordinator