

SUSTAINABLE SUPPLY CHAIN MANAGEMENT

Course code	GRAB009
Level of studies	Graduate
Number of credits	6 ECTS; 36 class hours, 124 hours of self-study,
	2 hours of consultation
Course coordinator (title and name)	Prof. Luiz C. Di Serio, luiz.diserio@fgv.br
Prerequisites	Undergraduate diploma
Language of instruction	English

THE AIM OF THE COURSE

Supply chain management is becoming an increasingly important aspect of the business world. Products are sourced, manufactured and transported on a global scale, leading to the need for skilled specialists in this area. These specialists also need to be increasingly aware of the wider impacts of these activities, with a focus beyond just economic impacts.

Supply chains are complex adaptive systems that are composed of structures, processes, and managerial activities which facilitate the flows of products, services, finances, and information (to and) from raw material suppliers to (and from) consumers. They are highly affected by the sustainability challenge and trying to utilize developments in technology, alternative ways of service provision, networking strategies, and other managerial initiatives to tackle this challenge. The introduction of the circular economy concept is altering the way linear supply chains are designed which requires the development and adoption of new strategies at different layers of supply chains.

Significant changes are required in the management of supply chains around the world to achieve the UN's Sustainable Development Goals. These changes are needed to be done on all three dimensions of the triple bottom line, namely the economy, the society, and the environment. Furthermore, changes do not only affect the actors that are involved in the production of goods and services but also all the other actors that are involved in the distribution, collection, or storage of those offerings. It is a mentality change in supply chain management that aims to end the difference between supply chain management and sustainable supply chain management and treat the environmental and social performance of supply chains as equally and even more valid than economic performance.

The aim of the course is to provide students with knowledge on sustainability in and sustainable development of contemporary supply chains, ranging from suppliers and customers to logistics services providers and consumers. The course is based on a full supply chain perspective including multiple actors from raw material suppliers to customers and even post-consumption, second-cycle supply chain members. The links and flows between these actors are covered in relation to sustainable products and services being offered in these structures and managing the sustainability of the actors themselves.

LEARNING OUTCOMES

Course learning outcomes (CLO)	Study methods	Assessment methods	
CLO1. To understand the role of value creation and	Lectures, readings, case	Participation, Individual	
impact measurement in managing future-fit businesses.	studies, self-study, in class	assignment, team project	
	discussions		
CLO2. To analyze and evaluate the value creation	Lectures, readings, case	Participation, Individual	
process of a company from sourcing via production to	studies, self-study, in class	assignment, team project	
sales.	discussions		
CLO3. To develop an impact-oriented value chain which	Lectures, readings, case	Participation, Individual	
creates positive impact for all stakeholders.	studies, self-study, in class	assignment, team project	
	discussions		
CLO4. To enable management decisions based on data	Lectures, readings, case	Participation, Individual	
on value creation and impact towards society.	studies, self-study, in class	assignment, team project	
	discussions		
CLO5. To develop a new mindset among leaders based	Lectures, readings, case	Participation, Individual	
on real value creation and positive impact which enables	studies, self-study, in class	assignment, team project	
them to build future-fit business models.	discussions		
CLO6. To critical reflect actual business strategies and	Lectures, readings, case	Participation, Individual	
transform them towards impact oriented business	studies, self-study, in class	assignment, team project	
models.	discussions		



CLO7. To apply the knowledge in a team project	Lectures, work	self-study,	group	Team project
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ACADEMIC HONESTY AND INTEGRITY

The ISM University of Management and Economics Code of Ethics, including cheating and plagiarism is fully applicable and will be strictly enforced in the course. Academic dishonesty and cheating can and will lead to a report to the ISM Committee of Ethics. With regard to remote learning, ISM reminds students that they are expected to adhere to and maintain the same academic honesty and integrity that they would in a classroom setting.

TEACHING METHODS

The course is a mixture of lectures, action learning, gaming, and case discussions; indeed, the course is mainly taught using the case-teaching method. A teaching case describes typical administrative issues or problems confronting a manager in an organization, usually presented from the standpoint of the decision-maker involved. A case serves as an educational vehicle. It gives participants the opportunity to place themselves in the position of the decision maker, offering debate on alternative courses of action, rather than offering a single "correct" outcome or solution.

Case Preparation

Cases require a very thorough preparation that includes 4 phases:

1. **Reading:** You are expected to have read the required articles listed, the cases and the provided questions for each class very well;

2. Prepare the analysis and answer the questions;

3. **Discuss and answer the questions with your group**, if it is the demand. The answers of the questions must consider the integration of the concepts in the articles, the case details, and the personal analysis of all the members of the group;

4. Each Class day: the person or the group has to upload the answer the day before class up to midnight and hand in a printed copy right at the beginning of the class.

Now, we are ready for discussion.

5. During case discussions, we will build a complete analysis of the case situation and address the problems and issues. In an interactive class environment, you should be able to analyze the issues both from a theoretical and practical perspective, identify and evaluate possible solution strategies, and recommend and defend one of them.

To facilitate discussion, in a typical class session, one or more students will be asked to begin discussion of a selected topic. If you have thoroughly prepared the case and/or readings you should have no difficulty in handling such a lead-off request. 6. The provided questions for each class session, guide your thinking about the readings and cases.

The development of verbal skills is given a high priority. In this respect, the classroom is a laboratory in which you can test your ability to present your analysis, recommendations, and implementation plans clearly, to convince your fellow students of the desirability and successfulness of your approach to complex problems.

COURSE OUTLINE

Session	Торіс	In-class hours	Readings
1	 Introduction to the course and assignments. ✓ Integrative Value Chain Management as a new model for business operations. ✓ Concepts of Competitiveness : macro and micro economics 	4	Required WEF: Word Economic Forum. Complementary D'heur, M. (Ed.) (2015) Sustainable Value Chain Management. Glauner, F. (2016) Future Viability, Business Models, and Values. Wunder, T. (Ed.) (2019) Rethinking Strategic Management. Seuring and Muller (2008); Turker and Altuntas (2014).
2	Global Sourcing and Procurement – how to build a sustainable supply chain ✓ Operations Strategy ✓ Performance KPIs	4	Required: Case : Dell Company, HBS Case Schroeder Roger G. The Cumulative Capability " Sand Cone", IJPR. Complementary: Pereira, E.G., Spencer, R., Moses, J.W. (Eds.) (2021) Sovereign Wealth Funds, Local Content Policies and CSR – Developments in the Extractive Sector.



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			Brueckner, M., Durey, A., Mayes, R., Pforr, C. (Eds.) (2014) Resource Curse or Cure? Aluchna, M., Idowu, S. (Eds.) (2017) Responsible Corporate Governance.	
3	Sustainable Production as a base for future-fit business models. ✓ Corporate Social Responsibility ✓ Corporate Share Value	4	Required: Case : Wal-Mart Porter: CSR and CSV SPI: Social Progress Index Complementary: Altenburger, R. (Ed.) (2018) Innovation Management and Corporate Social Responsibility. Idowu, S. (Ed.) (2016) Key Initiatives in Corporate Social Responsibility – Global Dimensions of CS in Corporate Entities. Moratis, L., Melissen, F., Idowu, S. (Eds.) (2017) Sustainable Business Models.	
4	How to build Sustainable Customer Relations and future-fit sales strategies. ✓ Ecosystems ✓ Dutch Flower Clusters: Case	4	Required: Case: Dutch Flower Cluster,HBS/ISC/MOC Complemnentary: De Chira, A. (Ed.) (2017) Implementing Sustainability – Strategies in Networks and Clusters. Habisch, A., Schmidpeter, R. (Eds.) (2016) Cultural Roots in Sustainbale Management. Allen, M. (2016) Strategic Communication for Sustainable Organizations. Diehl, S., Karmasin, M., Mueller,B., Terlutter, R., Weder, F.(Eds.) (2017) Handbook of Integrated CSR Communication.	
5	Impact Dimensions of Business Enterprises and Ways how to quantify them.	4	Required: Silicon Valley Cluster Engel, Jerome S. Global Cluster of Innovation Complementary O'Riordan, L. (2017) Managing Sustainable Stakeholder Relationships. Springer. D'heur, M. (Ed.) (2015) Sustainable Value Chain Management. Latest Cases and Entries from the International Journal of CSR and Encyclopedia of Sustainable Management (open access)	
6	Latest Developments in Impact Measurement	4	Case : Zara and Bang & Olufsen D'heur, M. (Ed.) (2015) Sustainable Value Chain Management. Latest Cases and Entries from the International Journal of CSR and Encyclopedia of Sustainable Management (open access)	
7	Management Tools for Sustainable Value Chain Management.	4	Case : Zara and Bang & Olufsen D'heur, M. (Ed.) (2015) Sustainable Value Chain Management.	



			Latest Cases and Entries from the International Journal of CSR and Encyclopedia of Sustainable Management (open access)
8	Team project presentations	4	Proving a mindset which overcomes old trade-off thinking and presenting a future-fit business opportunity as a team!
9	Team project presentations	4	Proving a mindset which overcomes old trade-off thinking and presenting a future-fit business opportunity as a team!
		Total: 36 hours	

FINAL GRADE COMPOSITION

Type of assignment	Self-study hours	% of the total grade
Participation	24	15%
Individual submissions	40	20%
Final - Team project	60	65%
Total:	124	100

DESCRIPTION AND GRADING CRITERIA OF EACH ASSIGNMENT

All topics, presentation materials and literature addressed in the course are subject to examination.

In order to pass the course, attendance and participation at the compulsory activities are required:

- Passing the individual assignment submission
- Active work in the **project**, and hand-in of a report
- Attendance and active participation in lectures

Assessment 1. Individual assignment submissions (20%)

We will be discussing cases and articles. You should be prepared for class discussion, and on e-learning will be provided suggested questions that you will have address. For the individual submissions, please prepare a short write-up (up to 3 pages, typed 12) answering the question(s). The objective of this short submission is to ensure that you prepare the case. For that reason, no late submissions will be accepted. As long as your answer shows that you have given sufficient thought to the analysis, you will get full credit. I will not provide feedback on these submissions (unless your work is not satisfactory).

Assessment 2. Participation (15%)

Students are expected to actively participate in class discussing and analysing cases as well as materials read before the class. Attendance is compulsory and is be taken at each class. The students are evaluated based on the knowledge shown during the analyses and discussions (frequency and quality of contributions to class discussion).

Assessment 3. Final - Team project (65%)

The project is a group work for 3-4 students in each group. Each group chooses one case company on their own. A sustainable strategy is to be developed for the case company's supply chain strategy – either for the whole supply chain or a defined part. The project is based on a real company's supply chain. This means that the different cases might differ in terms of problem description and expected results. You shall contact the company for information, but you must discuss the task and the selected company with the lecturer before you can start your work. Your task is to write a report for the CEO of the company. Details on the content of the team project report and other requirements will be discussed during the first class of the course.

RETAKE POLICY

In case of a negative final grade, students are allowed a resubmit Team project. All the requirements are the same but it shall be individually prepared paper. The weight of a re-take is 65%. Other assignments (participation and individual submissions) can not be retaken but their evaluation (if positive) is not annulled.

REQUIRED READINGS AND FURTHER LITERATURE 1.Required Readings



Main textbook: "Sustainable Logistics and Supply Chain Management" by Grant et al. (2017) and *journal articles* available through online databases at ISM library.

- 1.1Cases
- 1. Matching Dell (9-799-158);
- 2. Bang & Olufsen: Design Driven Innovation (9-607-016);
- 3. Zara: Fast Fashion (9-703-497)
- 5. Dutch Flower Cluster (711-507);
- 8. Wall-Mart Date: 04/17/07, Stanford Graduate School of Business (OIT-71).
- 9. Cluster do Vale do Silício
- 10. Amazon.com: Supply Chain Management (W18451)

1.2Articles

- Barney, J. Looking inside for competitive advantage (1995). Academy of Management Executive, 9(4): 49-61.
- Barney, J. B. 1999. How a firm's capabilities affect boundary decisions. Sloan Management Review, 40(3): 137-145.
 Batista, L, Gong, YU, Pereira, S.,Jia, F., Bittar, A.; Circular Supply Chains in Emerging Economies-a comparative study of the recovery ecosystems In China and Brasil, International Journal of Production Research, 2018.
- BCG, The CEO's Dilemma: Building Resilience in a Time of Uncertainty, BCG Executive Perspective, September 2022.
- BCG, US Inflation Reduction Act: Climate & Energy Features and Potential Implication, Executive Perspective, August 2022.
- Blackburn, J.D., Guide Jr., V.D.R., Souza, G.C. & Van Wassenhove, L.N. (2004), Reverse Supply Chains for Commercial Returns, California Management Review, 46(2)2, pp. 6-22.
- Bostrom, M.,2014. Between monitoring and trust. Commitment to extended upstream responsibility. J. Bus. Ethics. http://dx.doi.org/10.1007/s10551-014-2277-6 (Links to an external site.)
- Bostrom, M., A.M. Jonsson, S. Lockie, A.P. Mol, P.Oosterveer Sustainable and responsible supply chain governance: challenges and opportunities J. Clean. Prod., 107 (2014), pp. 1-
 - 7 https://www.sciencedirect.com/science/article/pii/S0959652614012372 (Links to an external site.)
- Carbone, V., Rouquet, A., & Roussat, C. (2018). A typology of logistics at work in collaborative consumption. International Journal of Physical Distribution & Logistics Management, 48(6), 570-585.
- Engel, Jerome S. a,*, Itxaso del-Palacio, There are two mandatory additional reading: Global networks of clusters of innovation: Accelerating the innovation process), Business Horizons (2009);
- Engel, Jerome S., Global Clusters of Innovation: Lessons from Silicon Valley, UCB, Vol.17, No.2, Winter 2015.
- > Fisher, M. L. (1997). What is the right supply chain for your product? Harvard Business
- Review, 75(2): 105-116.
- Florian Butollo; Gereffi, Gary; Yang, Chun Krzywdzinski, Martin. Digital transformation and value chains: Introduction, Global Networks. 2022; 22:585–594.
- Frei, F. X. (2006). Breaking the Trade-off between efficiency and service. Harvard Business Review, 84(11): 92-101.
- Geissdoerfer, M., Savaget, P., M.P. Bocken M.P.N., Erik Jan Hultink, E.J. The Circular Economy e A new sustainability paradigm?, Journal of Cleaner Production 143 (2017) 757e768
- Sereffi, G.1999a A commodity chains framework for analyzing global industries. Institute of Development Studies, 1–9.
- Göçer, A., Fawcett, S., & Tuna, O. (2018). What Does the Sustainability-Risk Interaction Look Like? Exploring Nuanced Relationships in Emerging Economy Sustainability Initiatives. Sustainability, 10(8), 2716. https://www.mdpi.com/2071-1050/10/8/2716 (Links to an external site.)
- Gottfredson, M.; Puryer, R.; Philips, S. (2005). Strategic sourcing: from periphery to the core. Harvard Business Review, 83(2): 132-139.
- Hutchins, M. J., & Sutherland, J. W. (2008). An exploration of measures of social sustainability and their application to supply chain decisions. Journal of cleaner production, 16(15), 1688-1698.
- Kleindorfer, P. R.; Singhal, K.; Wassenhove, L. N. V. (2005). Sustainable Operations Management. Production and Operations Management. Vol. 14, No. 4, pp. 482–492.
- Large, R. O., Kramer, N. & Hartmann, R. K. (2013). Procurement of logistics services and sustainable development in Europe: Fields of activity and empirical results, Journal of Purchasing and Supply Management, 19(3), 122-133.
- Lüdeke-Freund, F., Gold, S., & Bocken, N. M. (2019). A review and typology of circular economy business model patterns. Journal of Industrial Ecology, 23(1), 36-61.
- Linton, J. D.; Klassen, R.; Jayaraman, V. (2007). Sustainable supply chains: An introduction. Journal of Operations Management. 25: 1075–1082.
- Melnyk, S. et al. Outcome-driven supply chains. MIT Sloan Management Review, 51(2):33-38, 2010.
- Narayanan, V. G.; Raman, A. (2004). Aligning incentives in supply chains. Harvard Business Review, 82(11): 94-102.
 Nunan, Fiona, Governing Repewable Natural Resources, Routledge, 2020.
- Nunan, Fiona. Governing Renewable Natural Resources, Routledge, 2020.
- > O'REILLY, C.; TUSHMAN, M. L.; The Ambidextrous organizations. HBR, Vol. 82, nº 4, Apr 2004, pp. 74-81.
- Pazirandeh, A., & Maghsoudi, A. (2017), "Improved coordination during disaster relief operations through sharing of resources", Journal of the Operational Research Society, 1-15.
- > Porter, M. E. (1996). What is strategy? Harvard Business Review, 74(6): 61-78.
- Porter, M. E.; Linde, C. (1995). Green and Competitive: Ending the Stalemate. Harvard Business Review.73 (5):120-134.
- Porter, M. E; Reinhardt, F. L. (2007). A Strategic Approach to Climate. Harvard Business Review. 85(10):22-+
- Porter, M. E.; Kramer, M. R. (2011). Creating Shared Value. Harvard Business Review. 89(1):1-17..



UNIVERSITY OF MANAGEMENT AND ECONOMICS

- > Porter, M. Clusters and the New Economics of Competition, HBR NOVEMBER–DECEMBER 1998,
- Seuring, S., & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. Journal of cleaner production, 16(15), 1699-1710.
- Tachizawa, E. M., & Yew Wong, C. (2014). Towards a theory of multi-tier sustainable supply chains: a systematic literature review. Supply Chain Management: An International Journal, 19(5/6), 643-663.
- Gong,Huien;Hassink,Robert;Foster,Christopher;Garretsen,Harry. Globalisation in reverse? Reconfiguring the geographies of value chains and production networks, 15(2) ,May 2022,<u>Cambridge Journal of Regions Economy and</u> <u>Society</u>
- Turker, D., & Altuntas, C. (2014). Sustainable supply chain management in the fast fashion industry: An analysis of corporate reports. European Management Journal, 32(5), 837-849.
- Vallin, Diogo R.; Oliveira, J.A. Pupim, Sustainability-in-Chains or Sustainability-through-Chains? A Framework for Global Value Chain Sustainability Research, ANPAD-ENANPAD, September 2022.
- World Bank: Trading for Development , In the Age of Global Value Chin (GVC) Report,2020.
- Wu, Z., & Pagell, M. (2011). Balancing priorities: Decision-making in sustainable supply chain management. Journal of operations management, 29(6), 577-590.

1.3 Complementary Readings

- D'heur, M. (Ed.) (2015) Sustainable Value Chain Management.
- Glauner, F. (2016) Future Viability, Business Models, and Values.
- Wunder, T. (Ed.) (2019) Rethinking Strategic Management.
- Pereira, E.G., Spencer, R., Moses, J.W. (Eds.) (2021) Sovereign Wealth Funds, Local Content Policies and CSR Developments in the Extractive Sector.
- Brueckner, M., Durey, A., Mayes, R., Pforr, C. (Eds.) (2014) Resource Curse or Cure?
- Aluchna, M., Idowu, S. (Eds.) (2017) Responsible Corporate Governance.
- Altenburger, R. (Ed.) (2018) Innovation Management and Corporate Social Responsibility.
- Idowu, S. (Ed.) (2016) Key Initiatives in Corporate Social Responsibility Global Dimensions of CSR in Corporate Entities.
- Moratis, L., Melissen, F., Idowu, S. (Eds.) (2017) Sustainable Business Models.
- De Chira, A. (Ed.) (2017) Implementing Sustainability Strategies in Networks and Clusters.
- Habisch, A., Schmidpeter, R. (Eds.) (2016) Cultural Roots in Sustainbale Management.
- Allen, M. (2016) Strategic Communication for Sustainable Organizations.
- Diehl, S., Karmasin, M., Mueller, B., Terlutter, R., Weder, F.(Eds.) (2017) Handbook of Integrated CSR Communication.
- O'Riordan, L. (2017) Managing Sustainable Stakeholder Relationships. Springer.
- Balcik, B., Beamon, B. M., Krejci, C. C., Muramatsu, K. M., & Ramirez, M. (2010). Coordination in humanitarian relief chains: Practices, challenges and opportunities. International Journal of Production Economics, 126(1), 22-34.
- Baumann, H. and Tillman A.-M. (2004) The hitchhiker's guide to LCA: an orientation in life cycle assessment methodology and application. Lund: Studentlitteratur. 543 s. Chapter 1 p.19-41. Available on Canvas
- DHL Trend Radar Report 2018/2019, available on Canvas.
- Gereffi, Gary; Fernandez-Stark, Karina, value Chain Analysis: A Premier, The Duke Center on Globalization, Governance & Competitiveness, July 2016.
- Gao, X., Hewings, G. J. D., Yang, C. (2022) Offshore, re-shore, re-offshore: what happened to global manufacturing location between 2007 and 2014?, Cambridge Journal of Regions, Economy and Society, 15.
- Gereff, G. (2020) What does the COVID-19 pandemic teach us about global value chains? The case of medical supplies, Journal of International Business Policy, 3:287–301.
- Gereff, G., Lim H. C., and Lee J. (2021) Trade policies, frm strategies, and adaptive reconfgurations of global value chains, Journal of International Business Policy, 4: 506–522.
- Gereff, G., Pananond P., and Pedersen T. (2022) Resilience decoded: the role of frms, global value chains, and the state in COVID-19 medical supplies, California Management Review, 64: 46–70.
- Grant, David B; Wong, Chee Yew; Trautrims, Alexander (2017). Sustainable Logistics and Supply Chain Management - Principles and Practices for Sustainable Operations and Management. 2nd edition, Kogan Page, London, UK.
- Jahre, M., Pazirandeh, A., & Van Wassenhove, L. (2016). Defining logistics preparedness: a framework and research agenda. Journal of Humanitarian Logistics and Supply Chain Management, 6(3), 372-398.
- Kirchherr, J., Reike, D., Hekkert.M.. Conceptualizing the circular economy: An analysis of 114 definitions, Resources, Conservation & Recycling, 127 (2017) 221–232.
- Kovács, G., & Spens, K. M. (2007). Humanitarian logistics in disaster relief operations. International Journal of Physical Distribution & Logistics Management, 37(2), 99-114.
- McKinnon, A. (2016), "Freight transport deceleration: Its possible contribution to the decarbonisation of logistics", Transport Reviews, Vol. 36, No. 4, pp. 419-436.



- Sehnema,S., Jabbourb,C.J.C., Pereira, S.P., Jabbourb. A.B.L.S. Improving sustainable supply chains performance through operational excellence: circular economy approach, Resources, Conservation & Recycling, 149(2019)236-248
- The Ellen MacArthur Foundation, TOWARDS THE CIRCULAR ECONOMY,2015.
- Wilhelm, M., Blome, C., Wieck, E., & Xiao, C. Y. (2016a). Implementing sustainability in multi-tier supply chains: Strategies and contingencies in managing sub-suppliers. International Journal of Production Economics, 182, 196-212.
- Wilhelm, M. M., Blome, C., Bhakoo, V., & Paulraj, A. (2016b). Sustainability in multi-tier supply chains: Understanding the double agency role of the first-tier supplier. Journal of Operations Management, 41, 42-60.