

Hand-out MSc Seminar on Operations Management

Summer term 2024, version: 11 March 2024

Please note: This document reflects our planning before the term started; it will **not** be updated regularly. For short-term changes regarding rooms or times, see Campus. Changes regarding the content will be discussed in class and, if appropriate, communicated via Ilias.

Learning objectives

After successfully finishing the course, students can:

- independently understand, summarize, and criticise a scientific paper;
- link insights of a scientific paper to current streams of research and broader discussions in the field of (operations) management;
- moderately extend the paper's study (e.g., extend the model, formulate additional hypotheses, run more statistical analyses, discuss the insights with practitioners);
- constructively integrate feedback from peers or supervisors into their work;
- write a short scientific report;
- give an academic presentation.

Content

The seminar asks students to independently acquire knowledge based on a scientific paper. This paper has to be understood, summarized, criticized, extended, and put into context. Students write a report and hold a presentation about their understanding and findings.

Requirements

Course "Supply Chain Dynamics" or "Behavioural Operations Management" successfully passed.

Literature

Students are requested to choose one scientific article from the following list, on which their seminar paper and presentation will be based (nos. 1-5 rather link to "Supply Chain Dynamics"; nos. 6-11 rather link to "Behavioural Operations Management"):

1. Ahmad, S., & Simonovic, S. P. (2000). System dynamics modeling of reservoir operations for flood management. *Journal of computing in civil engineering*, 14(3), 190-198.
2. Coyle, R. G., & Gardiner, P. A. (1991). A system dynamics model of submarine operations and maintenance schedules. *Journal of the Operational Research Society*, 42(6), 453-462.
3. Aşık, G., & Doğança Küçük, Z. (2021). Metacognition in action as a possible explanation for stock-flow failure. *System Dynamics Review*, 37(4), 253-282.

4. Wolstenholme, E. F. (1988). Defence operational analysis using system dynamics. *European journal of operational research*, 34(1), 10-18.
5. Coyle, J. M., Exelby, D., & Holt, J. (1999). System dynamics in defence analysis: some case studies. *Journal of the Operational Research Society*, 50(4), 372-382.
6. Kumar, Anish; Mangla, Sachin Kumar; Kumar, Pradeep; Song, Malin (2021): Mitigate risks in perishable food supply chains: Learning from COVID-19. *Technological Forecasting and Social Change* 166.
7. Raj, Alok; Mukherjee, Abheek Anjan; Sousa Jabbour, Ana Beatriz Lopes de; Srivastava, Samir K. (2022): Supply chain management during and post-COVID-19 pandemic: Mitigation strategies and practical lessons learned. *Journal of Business Research* 142, pp. 1125–1139.
8. Spekman, R.E., Spear, J. and Kamauff, J. (2002), Supply chain competency: learning as a key component, *Supply Chain Management*, Vol. 7 No. 1, pp. 41-55.
9. Huo, Baofeng; Haq, Muhammad Zia Ul; Gu, Minhao (2021): The impact of information sharing on supply chain learning and flexibility performance. *International Journal of Production Research* 59 (5), pp. 1411–1434.
10. Nakandala, D., Smith, M. and Lau, H. (2020), Shared power and fairness in trust-based supply chain relationships in an urban local food system, *British Food Journal*, Vol. 122 No. 3, pp. 870-883.

11. Buil-Fabregà, M., del Mar Alonso-Almeida, M., & Bagur-Femenías, L. (2017). Individual dynamic managerial capabilities: Influence over environmental and social commitment under a gender perspective, *Journal of Cleaner Production*, 151, 371-379.
12. Jiménez-Jiménez, F., & Rodero-Cosano, J. (2023). Conditioning competitive behaviour in experimental Bertrand markets through contextual frames, *Journal of Behavioral and Experimental Economics*, 103, April 101987.
13. Oh, H.K., Abdulla, H., & Oliva, R. (2024). Behavioral multi-lever decision-making: A study of consumer return policy, price, and inventory decisions, *Journal of Operations Management*, 70(1), 137-156.
14. Ding, H., Hu, Y., Jiang, H., Wu, J., & Zhang, Y. (2023). Social embeddedness and supply chains: Doing business with friends versus making friends in business, *Production and Operations Management*, 32(7), 2154–2172.
15. Ganuthula, V.R.G., & Dyaram, L. (2016). Rationality and the reflective mind: A case for typical performance measure of cognitive ability, *Learning and Individual Differences*, 49, 216-223.
16. Wu, X., & Niederhoff, J.A. (2014). Fairness in selling to the newsvendor. *Production and Operations Management*, 23(11), 2002-2022.
17. Brauch, Manuel; Größler, Andreas (2022): Holistic versus analytic thinking orientation and its relationship to the bullwhip effect. *System Dynamics Review* 38 (2), pp. 121–134.
18. Akhavan, Ali; Gonçalves, Paulo (2021): Managing the trade-off between groundwater resources and large-scale agriculture: the case of pistachio production in Iran. *System Dynamics Review* 37 (2-3), pp. 155–196.
19. Besiou, M. and Van Wassenhove, L.N. (2021), System dynamics for humanitarian operations revisited, *Journal of Humanitarian Logistics and Supply Chain Management*, Vol. 11 No. 4, pp. 599-608.

20. Olivares-Aguila, Jessica; ElMaraghy, Waguih (2021): System dynamics modelling for supply chain disruptions. *International Journal of Production Research* 59 (6), pp. 1757–1775. DOI: 10.1080/00207543.2020.1725171.
21. Struben, Jeroen; Kapmeier, Florian (2023): From low-hanging fruit to high-impact sustainability transformations: unpacking dynamics of intra- and interorganizational capability traps. *System Dynamics Review* 39 (4), pp. 404–431.

Timetable

Date, time	Topic	Where?	Who?
15/04/2024, 14:00–15:30	Kick-off: explanation of procedures and topics	M17.11	Größler
22/04/2024, 14:00–15:30	Introduction to scientific writing (1/3)*	M17.11	Elter
29/04/2024 14:00–15:30	Organised peer-review of table of contents	M17.11	Elter
06/05/2024 14:00–15:30	Introduction to scientific writing (2/3)*	M17.11	Elter
	Please register on C@mpus for the examination	C@mpus-System	
27/05/2024 14:00–15:30	Current methodological debates in system dynamics and experimental research	M17.11	Größler
03/06/2024 14:00–15:30	Introduction to scientific writing (3/3)*	M17.11	Elter
10/06/2024, 14:00–15:30	Intermediate oral presentation & discussion: outline, progress, questions*	M17.11	Elter
17/06/2024, 14:00–15:30	How to write a seminar paper / How to give a seminar presentation	Video lectures (see Ilias)	Größler
24/06/2024, 14:00–15:30	Organised peer-reviews of papers	M17.11	Wiesner
08/07/2024 14:00–15:30	Organised peer-review of presentations	M17.11	Wiesner
10/07/2024 18:00	Deadline for submitting papers and presentation material on ILIAS	Ilias	
11/07/2024 tbd	Presentation of seminar papers*	Tba	all

* Attendance is compulsory for passing the course

Intermediate supervision

During the period of writing the seminar paper and preparing the presentation, advice can be sought with the research associates of the department, Ms. Elter and Mr. Wiesner in KII, 07.005 after making an appointment. **It is mandatory that students use this opportunity at least once** but not more than five times.

Examination

Student assessment is based on a written and an oral examination: seminar paper and seminar presentation—weight: seminar paper 60%, seminar presentation 40%.

The seminar paper should not be longer than 12 pages (or 15 pages including cover sheet, table of contents, and literature list), font size 12 points, font type Times New Roman, line spacing 1.5, margins 2.5 cm (top and bottom) and 2 cm (left and right). Please provide page numbers. The cover page should include the title of the paper, the student's name, and the matriculation number. Please provide an electronic version (on Ilias) before the presentations (i.e., **deadline: 10 July 2024, 18:00**). About the criteria for a good paper, please check the learning objectives and watch the video lecture "How to write a seminar paper". More information on formal requirements can also be found at <https://www.bwi.uni-stuttgart.de/studium/pdfs/Zitierrichtlinien.pdf>.

The seminar presentation should not be longer than 45 minutes, including time for discussion (duration might be adjusted in case of many participants). Thus, it must focus on the importance and relevance of the topic being discussed, the simulation model employed, the most important findings within the paper, and a criticism and extension of these findings. PowerPoint slides are a possible way to support the talk but other forms (e.g., speech with hand-outs, Prezis, posters, model walk-throughs) are also encouraged but must be organized by the students. Presentation material must be made available to the teachers for assessment. Students must be prepared to answer questions regarding their presentation and paper. For more information, also watch the video lecture "How to give a seminar presentation".