

## Hand-out MSc Seminar on Operations Management

Summer term 2021, version: 16 April 2021

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 a scientific paper;
- summarize and criticize a scientific paper;
- put a scientific paper into context with regard to broader discussions in the field of (operations) management;
- rebuild and moderately extend the simulation model described in the paper;
- 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 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. 1-10 rather link to “Supply Chain Dynamics”; nos. 11-20 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. Gonçalves, P. (2011). System dynamics modeling of humanitarian relief operations. Now titled Balancing Provision of Relief and Recovery with Capacity Building in Humanitarian Operations. *Operations Management Research*, 4(1-2), 39-50.
3. Thompson, B. P., & Bank, L. C. (2010). Use of system dynamics as a decision-making tool in building design and operation. *Building and Environment*, 45(4), 1006-1015.

4. 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.
5. Cagliano, A. C., DeMarco, A., Rafele, C., & Volpe, S. (2011). Using system dynamics in warehouse management: a fast-fashion case study. *Journal of Manufacturing Technology Management*.
6. Wolstenholme, E. F. (1988). Defence operational analysis using system dynamics. *European journal of operational research*, 34(1), 10-18.
7. Yang, T., Li, Y., & Zhou, S. (2019). System Dynamics Modeling of Dockless Bike-Sharing Program Operations: A Case Study of Mobike in Beijing, China. *Sustainability*, 11(6), 1601.
8. Aschauer, G., Gronalt, M., & Mandl, C. (2015). Modelling interrelationships between logistics and transportation operations—a system dynamics approach. *Management Research Review*.
9. 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.
10. Georgiadis, P., & Besiou, M. (2008). Sustainability in electrical and electronic equipment closed-loop supply chains: a system dynamics approach. *Journal of cleaner production*, 16(15), 1665-1678.
11. Moritz, B. B., Hill, A. V., & Donohue, K. L. (2013). Individual differences in the newsvendor problem: Behavior and cognitive reflection. *Journal of Operations Management*, 31(1-2), 72-85.
12. AlKhars, M., Evangelopoulos, N., Pavur, R., & Kulkarni, S. (2019). Cognitive biases resulting from the representativeness heuristic in operations management: an experimental investigation. *Psychology research and behavior management*, 12, 263.
13. Kaufmann, L., Meschnig, G., & Reimann, F. (2014). Rational and intuitive decision-making in sourcing teams: Effects on decision outcomes. *Journal of Purchasing and Supply Management*, 20(2), 104-112.
14. Wood, L. C., Reiners, T., & Srivastava, H. S. (2017). Think exogenous to excel: alternative supply chain data to improve transparency and decisions. *International Journal of Logistics Research and Applications*, 20(5), 426-443.
15. Moritz, B., Siemsen, E., & Kremer, M. (2014). Judgmental forecasting: Cognitive reflection and decision speed. *Production and Operations Management*, 23(7), 1146-1160.
16. Laker, L. F., Froehle, C. M., Windeler, J. B., & Lindsell, C. J. (2018). Quality and efficiency of the clinical decision-making process: Information overload and emphasis framing. *Production and Operations Management*, 27(12), 2213-2225.
17. De Vericourt, F., Jain, K., Bearden, J. N., & Filipowicz, A. (2013). Sex, risk and the newsvendor. *Journal of Operations Management*, 31(1-2), 86-92.
18. Ball, G. P., Shah, R., & Donohue, K. (2018). The decision to recall: A behavioral investigation in the medical device industry. *Journal of Operations Management*, 62, 1-15.
19. Stangl, T., & Thonemann, U. W. (2017). Equivalent inventory metrics: A behavioral perspective. *Manufacturing & Service Operations Management*, 19(3), 472-488.
20. Boffelli, A., Golini, R., Orzes, G., & Dotti, S. (2020). Open the box: A behavioural perspective on the reshoring decision-making and implementation process. *Journal of Purchasing and Supply Management*, 26(3), 100623.

## Timetable

<b>Date, time</b>	<b>Topic</b>	<b>Where?</b>
26/04/2021, 14:00–15:30	Kick-off: explanation of procedures and topics	online live
10/05/2021, 14:00–15:30	Organized peer-review of table of contents	online live
	Please register on C@mpus for examination	C@mpus-System
17/05/2021	How to write a seminar paper	recorded lecture
31/05/2021	How to give a seminar presentation	recorded lecture
07/06/2021 14:00–15:30	Intermediate oral presentation & discussion: outline, progress, questions	online live
05/07/2021, 11:30–13:00	Organized peer-reviews of papers	online live
12/07/2021, 11:30–13:00	Organized peer-review of presentations	online live
19/07/2021, 09:00	Deadline for submitting papers and presentation material on ILIAS	Ilias
19/07/2021, 09:45–17:15	Presentation of seminar papers	online live / in presence, if possible

All online-live classes will be conducted on Webex with the following link:

<https://unistuttgart.webex.com/meet/manuel.brauch>. Please switch on your camera but mute your microphone (unless you want to say something, of course).

You need to register for the seminar on Campus between 12 May 2021 and 10 June 2021. In case you want to withdraw, this needs to be done by 10 June 2021.

## 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, Mr Brauch and Mr Đula, Tuesdays 10:00–12:00 or after making an appointment. It is advised that students use this opportunity two or three times 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 (on Ilias) version before the presentations (i.e., deadline: 19 July 2021, 09:00 am). With regard to the criteria for a good paper, please check the learning objectives and watch the video lecture. 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. 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.