

Hand-out Behavioural Operations Management

WS 2022/2023, version: 21 September 2022

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.

Technicalities

One semester course, taught every second semester in the winter term.

Six credit points; on average, four contact hours per week. Taught in English.

Course coordinator and lecturer: Prof Dr Andreas Größler; tutorials: Julian Wiesner and Julia Horn

Part of the MSc study programme in (technically oriented) business administration.

Learning objectives

After successfully finishing the course, students can:

- name and identify managerial decision-making biases on the individual and group level;
- discuss relevant experiments in the behavioural operations management literature;
- understand and evaluate improvement guidelines for operations' decision-making;
- evaluate experiments in the realm of dynamic decision making.

Content

The course discusses managerial decision-making, cognition, and biases from an operations point of view, i.e. not only decision-making in high-level management teams are considered but also decision-making on the shop floor. The effects of behavioural factors on organisational value creation processes is in the centre of interest. Experiments on the topic are presented. Students learn about simple experiments to investigate dynamic decision making.

Timetable

Lectures will take place on Mondays (as indicated in the timetable) at 3:45 pm in lecture hall **M 17.91**.

Date	Topic	Reading assignment
<i>Introduction and foundations</i>		
24/10/2022	Introduction to department and to the course; course logistics; definition of behavioural operations management	
31/10/2022	Foundations of behavioural operations management	Bendoly et al., 2015, ch. 1
07/11/2022	Laboratory and field experiments as primary investigation methods	Bendoly et al., 2015, ch. 2

<i>Decision-making and behaviour in systems</i>		
14/11/2022	Constraints and variability: design and effects of production lines and queuing systems	Gupta&Boyd, 2008
21/11/2022	Randomness and deterministic chaos in operations performance	Franco-Santos& Otley, 2018
28/11/2022	Complexity: adapting operations strategies and endogenous demand	Huang&Liu, 2015
<i>Isolated decisions and behaviour</i>		
05/12/2022	Cognition: the Newsvendor task and other inventory settings	Schweitzer&Cachon, 2000
12/12/2022	Intuition: demand forecasting, problem-solving, and entrepreneurship	Belvedere&Goodwin, 2017
19/12/2022	Personality: controlling complex inventory systems and “positive” psychology	Strohhecker& Größler, 2013
<i>Nested decisions and behaviour</i>		
09/01/2023	Group decision-making in improvement projects	Riccobono et al., 2016
16/01/2023	Fairness and trust: management of supply networks	Jokela&Söderman, 2017
23/01/2023	Societal and cultural embedding of operations, sustainability	Price&Sun, 2017
<i>Interventions and conclusion</i>		
30/01/2023	<i>Guest lecture: tbd</i>	
06/02/2023	Change management and organizational interventions; outlook	Bendoly et al., 2015, ch. 19

Please read the chapter/article indicated *before* the lecture.

Plan of tutorials

Tutorials will take place on Mondays (as indicated in the timetable) at 11:30 am in lecture hall **M 17.24**.

Date	Topic	Laptop needed?
07/11/2022	Stanford Prison Experiment	No
14/11/2022	Jewelry restoration	No
21/11/2022	Statapult competition	No
28/11/2022	Furniture manufacturing case	No
05/12/2022	Humanitarian logistics: “Kicking the mean habit”	Yes
12/12/2022	Clean start	Yes
19/12/2022	Sharing the risk	Yes
09/01/2023	Stickle Bricks production line	No
16/01/2023	Salt Seller Game	Yes
23/01/2023	Coffee value chain	No
30/01/2023	Q&A	No

Examination

Assessment will be carried out by means of a written exam. In total, 50% of all points are necessary to pass the course with 6 credit points. The content of the exam comprises all topics discussed in class or in

the required reading assignments (see timetable). Participating in the tutorials is expected from all students and at least one exam question will cover a topic from the tutorials.

Mandatory literature

Belvedere, V., P. Goodwin (2017): The influence of product involvement and emotion on short-term product demand forecasting. *International Journal of Forecasting* **33**(3), 652–661.

Bendoly, E., W. van Wezel, D.G. Bachrach (eds.)(2015): *Handbook of Behavioral Operations Management*, Oxford University [chs. 1, 2, 19].

Franco-Santos, M., D. Otley (2018): Reviewing and theorizing the unintended consequences of performance management systems. *International Journal of Management Reviews* **20**(3), 696–730.

Gupta, M.C., L.H. Boyd (2008): Theory of Constraints: a theory for operations management. *International Journal of Operations & Production Management* **28**(10), 991–1012.

Huang, T., Q. Liu (2015). Strategic Capacity Management when Customers have Boundedly Rational Expectations. *Production and Operations Management* **24**(12), 867–879.

Jokela, P., A. Söderman (2017): Re-examining the link between fairness and commitment in buyer-supplier relationships. *Journal of Purchasing and Supply Management* **23**(4), 268–279.

Price, J. M., W. Sun (2017): Doing good and doing bad: The impact of corporate social responsibility and irresponsibility on firm performance. *Journal of Business Research* **80**, 82–97.

Riccobono, F., M. Bruccoleri, A. Größler (2016): Groupthink and Project Performance: the influence of personal traits and interpersonal ties. *Production and Operations Management* **25**(4), 609–629.

Schweitzer, M.E., G.P. Cachon (2000): Decision Bias in the Newsvendor Problem with a Known Demand Distribution: Experimental evidence. *Management Science* **46**(3), 404–420.

Strohhecker, J. and A. Größler (2013): Do Personal Traits Influence Inventory Management Performance? – The case of intelligence, personality, interest and knowledge. *International Journal of Production Economics* **142**(3), 37–50.

Additional Literature

Baines, T., S. Mason, P.O. Siebers, J. Ladbrook (2004): Humans: the missing link in manufacturing simulation? *Simulation Modelling Practice and Theory* **12**(7), 515–526.

Bhattacharya, C.B., S. Sen (2004): Doing Better at Doing Good: When, why, and how consumers respond to corporate social initiatives. *California Management Review* **47**(1), 9–24.

Boudreau, J., W. Hopp, J.O. McClain, L.J. Thomas (2003): On the Interface between Operations and Human Resources Management. *Manufacturing & Service Operations Management* **5**(3), 179–202.

Donohue, K., E. Katok, S. Leider (eds.)(2019): *The Handbook of Behavioral Operations*, Wiley.

Forsythe, R., J.L. Horowitz, N.E. Savin, M. Sefton (1994). Fairness in Simple Bargaining Experiments. *Games and Economic Behavior* **6**, 347–369.

Frederick, S. (2005): Cognitive Reflection and Decision Making. *Journal of Economic Perspectives* 19(4), 25–42.

Jackson, S., J.R. Wilson, B.L. MacCarthy (2004): A New Model of Scheduling in Manufacturing: Tasks, roles, and monitoring. *Human factors* 46(3), 533–550.

Langer, E.J. (1975): The Illusion of Control. *Journal of Personality and Social Psychology* 32(2), 311–328.

Pasin, F., H. Giroux (2011): The Impact of a Simulation Game on Operations Management Education. *Computers & Education* 57(1), 1240–1254.

Zuffo, R.G. (2011): Taylor is Dead, Hurray Taylor! The "Human Factor" in Scientific Management: Between ethics, scientific psychology and common sense. *Journal of Business and Management* 17(1), 23–41.