

## Hand-out Behavioural Operations Management

**WS 2017/2018**

Version: 5 October 2017

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: Ivan Đula and Manuel Brauch

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;
- discuss relevant experiments in the behavioural operations management literature;
- understand and evaluate improvement guidelines for operations' decision-making;
- design simple 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 and, partially, repeated in class. Students learn about simple experiments to investigate dynamic decision making.

### Timetable

Lectures will be held on Thursdays, 09:45-11:15 in M 2.03.

Date	Topic	Reading assignment
19/10/2017	Introduction to department and to the course; course logistics; definition of behavioural operations management	
26/10/2017	Foundations of behavioural operations	Bendoly et al., ch. 1

02/11/2017	Experiments as the primary way of investigation in behavioural operations	Bendoly et al., ch. 2
09/11/2017	Constraints and variability	Gupta&Boyd, 2008
16/11/2017	Behavioural aspects in process analysis	Boudreau et al., 2003
23/11/2017	Process control and improvement	Langer, 1975
30/11/2017	Human behaviour in scheduling	Jackson et al., 2004
06/12/2017	<i>Site visit: Trumpf Maschinenbau, Ditzingen, 09:00–14:00</i>	
07/12/2017	<i>Mid-term assessment</i> Motivation and performance in work design	Zuffo, 2011
14/12/2017	Endogenous effects of behaviour on performance	Baines et al., 2004
11/01/2018	Pull-to-centre effects in supply lines	Schweitzer&Cachon, 2000
18/01/2018	<i>Guest lecture: Prof Florian Kapmeier (ESB Reutlingen)—Price forecasting in a commodity market</i>	
25/01/2018	Design of social supply chains	Battacharya&Sen, 2004
01/02/2018	Implications for Operations Management education	Pasin&Giroux, 2011
08/02/2018	Relevance of behavioural operations in practice and future research	Bendoly et al., ch. 19

Please read the chapter/article indicated before the lecture. Together with the tutorial in that week, this prepares part of the content that is covered in the lecture.

#### Plan of tutorials

Tutorials will take place on Mondays, 08:00-09:30, in M 17.81, starting on 06/11/2017.

Date	Topic	Laptop needed?
06/11/2017	Jewellery restoration	
13/11/2017	Kristen's Cookie Company	yes
20/11/2017	Statapult competition	
27/11/2017	Furniture manufacturing case	
04/12/2017	Roles and processes in retailing	
11/12/2017	Roofing slates manufacturing plant	
18/12/2017	<i>Video assignment: Stanford Prison Experiment*</i>	
08/01/2018	Humanitarian logistics	yes
15/01/2018	Salt seller game	
22/01/2018	Coffee value chain	
29/01/2018	Sharing the risk	yes
05/02/2018	Q&A	

\* Watch the BBC documentation at <https://www.youtube.com/watch?v=gb4Q20z0T1Q>. Interpret the film regarding (i) the structure/agency debate, (ii) the validity of experiments, and (iii) the ethics of empirical research.

#### Examination

Assessment will be carried out by means of a written exam (90%) and a short multiple-choice mid-term assessment during a regular class (10%; for date see time table). The mid-term assessment cannot be retaken or be written at another date. 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 either the lectures or tutorials plus all required reading assignments (see timetable). Participating in the tutorials is expected from all students.

### Literature

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

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

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.

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.

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.

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.

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.