

## Capita Selecta Behavioral Operations Management

<b>Date:</b>	<b>9 &amp; 23 September 2020</b>
<b>Time:</b>	<b>10.00 – 16.00 h.</b>
<b>Location:</b>	<b>Utrecht</b>
<b>Course leaders:</b>	<b>Dr. Wout van Wezel &amp; Dr. Paul Buijs (University of Groningen)</b>
<b>Days:</b>	<b>2</b>
<b>ECTS:</b>	<b>0.5 (attendance) / 2 (attendance + passing assignment)</b>
<b>Course fee:</b>	<b>Free for TRAIL/Beta/OML members, others please contact the TRAIL office</b>
<b>Registration:</b>	<b>www.rstrail.nl</b>

### Objectives

The goals of the course are:

- to provide a basic background of Behavioral Operations
- to explore the role of human behavior in the use of algorithms

### Course description

Behavioral Operations Management focuses on how human behavior affects operations management decision making and, in turn, how operations management decisions affect human behavior. Most operations management models rely on simplistic assumptions when it comes to human behavior. These simplistic assumptions limit the applicability of these models. This is especially the case in quantitative decision models, heuristics, and algorithms. Examples are scheduling algorithms, forecasting models, and inventory models. These algorithms and models usually do not consider behavioral factors that play a role in decision making such as motivation, trust, cognitive limitations, and psychological ownership. This limits usability, usefulness, and acceptance of models in practice, as shown by recent literature on Algorithm Aversion. In the course we analyze these factors and how their effects can be mitigated by incorporating behavioral factors in the design of quantitative models and algorithms.

### Assignment

In the assignment, participants will analyze an element of their own research from the perspective of Behavioral Operations. For example, how can an algorithm that is being developed consider the prospective users? The specific contents and methodology are customized for each participant and will be determined by the participants and lecturers together.

### Course material

Dietvorst, B. J., Simmons, J. P., & Massey, C. (2015). Algorithm aversion: People erroneously avoid algorithms after seeing them err. *Journal of Experimental Psychology: General*, 144(1), 114.

Dietvorst, B. J., Simmons, J. P., & Massey, C. (2016). Overcoming algorithm aversion: People will use imperfect algorithms if they can (even slightly) modify them. *Management Science*, 64(3), 1155-1170.

Gino, F., & Pisano, G. (2008). Toward a theory of behavioral operations. *Manufacturing & Service Operations Management*, 10(4), 676-691.

Schweitzer, M. E., & Cachon, G. P. (2000). Decision bias in the newsvendor problem with a known demand distribution: Experimental evidence. *Management Science*, 46(3), 404-420.

Additional relevant scientific articles will be provided at the start of the course.

**Methodology**

Depends on the specific assignment.

**Prerequisite**

Participants are expected to already have taken introductory or advanced courses in Organizational Behavior, Operations Management, and Statistics at the BSc or MSc level.