

## **Call for thesis candidates (Bachelor's and Master's): Developing and Pretesting a Balanced Argument Scenario for an Innovation Decision Experiment**

### **Background & Objective**

In experimental research on innovation decisions, scenario design plays a crucial role in ensuring validity and reliability. When studying decision-making under uncertainty or cognitive biases, the balance of pro- and contra-arguments is particularly important, as it directly influences participant behavior.

— This thesis focuses on developing and pretesting a realistic and balanced argument set for use in online experiments (via oTree) that simulate innovation-related decision-making situations. The emphasis will be on ensuring argument symmetry in terms of plausibility, relevance, and informational value, thereby avoiding unintended bias.

This thesis aims to address this gap by:

1. Conduct a literature review on experimental scenario design, especially in innovation management and decision-making research.
2. Develop a realistic innovation decision scenario with an equal number of strong pro- and contra-arguments.
- 3. Pretest the scenario in an online oTree experiment to evaluate argument balance, comprehension, and participant engagement.

### **Methodological Approach**

#### Phase 1: Literature Foundation

- Systematic review of experimental design principles for balanced argument presentation.
- Identification of best practices from behavioral economics, innovation management, and cognitive psychology.

#### Phase 2: Scenario Development

- Creation of a realistic innovation case (e.g., adoption of a new technology in a mid-sized company).
- Development of 6–8 pro-arguments and 6–8 contra-arguments matched in strength, specificity, and domain relevance.

#### Phase 3: Online Pretest (oTree)

- Implementation of the scenario in oTree for online distribution.
- Data collection from a student sample to test argument selection patterns, perceived persuasiveness, and balance.

### **Expected Outcomes**

- A validated innovation decision scenario suitable for use in future experimental studies.
- Empirical evidence on the perceived balance and effectiveness of the arguments.

### **Candidate Requirements**

- Interest in experimental research and scenario design.
- Basic knowledge of empirical methods
- Willingness to learn and work with oTree (prior experience welcome but not required).
- Excellent command of English.

### **Application**

Please send a motivation letter (max. 250 words, not AI-generated), CV, and current grade transcript to:  
[jakob.maxl@tum.de](mailto:jakob.maxl@tum.de).

**Please note: as this thesis is part of an ongoing research project, selected candidates will be required to sign a confidentiality agreement before receiving further information.**