Master Thesis

"Strategizing in the Age of AI:
An Empirical Research Study"

Background

About six years ago, less than 10% of organizations adopted any form of Artificial Intelligence (AI). In 2021, about 80% used it in their business activities (Meissner and Keding 2021). According to Gartner's results of the 2022 CIO agenda, AI is one of the two main technologies organizations have already or are planning to deploy in 2022. Strategizing describes the actions, commitments, activities, and decisions of people involved in the strategy process to achieve above-average returns (Krogh et al. 2021).Today AI is increasingly used in a wide range of strategic tasks (Keding 2021). AI algorithms can potentially assist in strategizing by analyzing the outcome of various strategic processes, automating those, or simulating different alternatives of strategic decisions. Moreover, the scale, scope, and speed of strategic analyses can be increased dramatically by using AI (von Krogh, et al., 2021). However, even though the last couple of years showed a growing research interest in understanding the transformation of organizations through AI (Krogh 2018), much less is known about how it changes strategizing (Krogh et al. 2021). Consequently, there is much research potential in this field.

Introductory Reading

- Keding, Christoph (2021): Understanding the interplay of artificial intelligence and strategic management: four decades of research in review. In Manag Rev Q 71 (1), pp. 91–134.
- Krogh, Georg von (2018): Artificial Intelligence in Organizations: New Opportunities for Phenomenon-Based Theorizing. In Academy of Management Discoveries 4 (4).
- Krogh, Georg von; Ben-Menahem, Shiko; Shrestha, Yash Raj (2021): Artificial Intelligence in Strategizing: Prospects and Challenges. In Marjorie A. Lyles, Irene M. Duhaime, Michael A. Hitt (Eds.): Strategic Management: State of the Field and Its Future: Oxford University Press.
- Meissner, Philip; Keding, Christoph (2021): The Human Factor in AI-Based Decision-Making. In MIT Sloan Management Review.

Tasks and Goals

This master thesis is closely related to the current research of the chair and includes:

- Literature review regarding the development and current research state of AI for strategizing
- **Empirical qualitative research** in the form of **expert interviews** to identify and analyze potentials and limitations to use AI for strategizing
  - o Identification and selection of interview participants → experts in the field of AI and strategizing (i.e., management/strategy/IT consultants, data scientists, executives, or strategists)
  - o Organizing, conducting, and evaluating the semi-structured interviews and using free-listing to identify (potential) use cases of AI for strategizing, and also its challenges, risks, and limitations
  - o Assessment of the current state and future potentials of AI applications for strategizing

Requirements

- Good English skills
- Independent, reliable, and diligent working style with attention to detail
- Participation in the lecture *Strategies in Multinational Enterprises (MNEs)*

Details

- Supervisors   Prof. Dr. Thomas Hutzschenreuter and Franziskus Perkhofer, MSc
- Start   Flexible / As of now
- Working time   6 months

Contact

If you are interested in writing your thesis at our chair or have questions on this topic, please contact Franziskus Perkhofer (franziskus.perkhofer@tum.de). Please send an email, including a tabular CV and current transcript of records (as one PDF file), to apply for a master thesis. We are looking forward to working with you!

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