



## Master Thesis

### “A Case Study on Barriers and Enablers for the Adoption of AI-based technologies in companies”

#### Background

Digitization is not only a buzzword for managers, but a crucial attempt to systematically transform a company and its business model into a digital entity. Moreover, it affects each and every industry worldwide. Hence, for staying competitive, companies have to continuously progress this transformation. A next step in this process will be the implementation of Artificial Intelligence (AI). The technology has the power to change market competition completely and is already mature enough to be applied in various business contexts. This offers plenty of space for gaining competitive advantage and ceteris paribus higher profits. Nevertheless, many companies are still digital beginners facing a lot of challenges. As an AI implementation process goes over time, it has multiple phases, each with different focuses and characteristics. Therefore, it will be very interesting to identify relevant factors for each implementation phase that enable and impede the adoption of AI-based technologies. For this, both, internal as well as external company factors matter.

#### Introductory Readings

- Kar, A. & Kushwaha, A. (2021). Facilitators and Barriers of Artificial Intelligence Adoption in Business – Insights from Opinions Using Big Data Analytics. *Information Systems Frontiers*. DOI: 10.1007/s10796-021-10219-4
- Hong, C.; Ling, L. & Yong, C. (2020). Explore success factors that impact artificial intelligence adoption on telecom industry in China. *Journal of Management Analytics*, 8(1), 36-68. DOI: 10.1080/23270012.2020.1852895
- Cubric, M. (2020). Drivers, barriers and social considerations for AI adoption in business and management: A tertiary study. *Technology in Society*, 62, Article 101257. DOI: 10.1016/j.techsoc.2020.101257

#### Tasks and Goals

This master thesis is closely related to the current research of the chair. The thesis will be based on case study/qualitative methodology to examine important barriers and enablers for companies during an AI implementation process. For this, you will review relevant scientific literature on AI adoption and AI transformation as well as analyze company reports in order to find real-world evidence. Based on the information that you gather, you will create a case study in which you apply your gained knowledge for conducting some interviews with key people from 2-3 selected companies.

#### Requirements

- Good English skills as well as previous experience with strategic topics and/or AI
- Independent, reliable, and diligent working style with an eye for detail and high motivation
- Successful participation (min. grade of 2.0) in the lecture *Strategies in Multinational Enterprises (SMNE)* or one of our advanced seminars

#### Details

- Supervisors Prof. Dr. Thomas Hutzschenreuter and Tim Lämmerrmann
- Timing Flexible / As of now for a duration of 6 months after the research exposé is accepted

#### Contact

If you are interested in writing your thesis at our chair or have questions to this topic, please contact Tim Lämmerrmann ([tim.laemmermann@tum.de](mailto:tim.laemmermann@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 for your application!