At the chair of Management of Digital Food Businesses, we are looking for an interested and qualified student to conduct a

Master or Bachelor thesis

on the topic of

Using blockchain in the food supply chain

Blockchain technology offers a promising foundation for enhancing transparency, traceability, and sustainability within food supply chains. As a decentralized and tamper-proof digital ledger, blockchain records transactions and data exchanges securely among all participants, enabling trusted information sharing from farm to fork. In the context of food systems, it allows stakeholders to verify product origins, monitor production and transportation conditions, and ensure compliance with quality and sustainability standards. This transparency can help combat food fraud, improve recall efficiency, and foster responsible sourcing by making environmental and social impacts visible and verifiable. Moreover, blockchain can support sustainability initiatives through smart contracts that incentivize waste reduction, fair-trade practices, and lower carbon footprints. Overall, blockchain serves as a key enabler of more transparent, sustainable, and accountable food supply chains.

Your tasks can include

- Performing a literature review on blockchain in the FSC
- Design a case study example and implement a block chain
- Analyze and interpret the results

Requirements

This thesis is suitable for students of the management & Technology master and/or bachelor, who are interested in the food supply chain. And for master students from relevant Life Science studies, such as AgriFood Economics, Policy and Regulation, Brewing & Beverage or Food Technology or sustainable resource management, with an interest in quantitative research methods.

Application

If you are interested, please send an email to Prof. Dr. Marjolein Buisman (marjolein.buisman@tum.de) to express your interest. The following information should be included in the email

- CV
- Transcript of records
- Preferred starting time