

Topic: Digging into risk management at the interface of production networks and supply chains

Background:

Manufacturing has moved from single factories to international networks as globalization grew. The structures of such networks are historically grown and not optimized to withstand external shocks. Additionally, supply chain configurations are frequently misaligned with the operational needs of the production network. This not only creates inefficiencies but also increases the overall risk sensitivity of the system. As both production networks and supply chains become increasingly complex, strategies to mitigate such risks gain relevance. To this day, risk management has been researched scarcely in production networks and supply chains, let alone in an integrated context.

Aim of the Thesis:

The aim of this thesis is to conduct an in-depth analysis of risk management at the interface of global production networks and supply chains. Specifically, it seeks to:

- Identify and differentiate risk types at this interface, considering internal (within the production network) and external (within the supply chain) risk factors.
- Investigate and evaluate risk mitigation strategies, focusing on their relevance and effectiveness in managing risks at the interface of production networks and supply chains.
- Examine the integration of risk management processes in global production networks and supply chains, exploring how internal and external risk management strategies can be better aligned and coordinated.

Potential approaches could include a literature review, empirical studies (e.g., interviews with industry experts), or the development of a framework to identify, assess and mitigate interface-specific risks. The result should provide a solid foundation for a more integrated approach to risk management at the intersection of production networks and supply chains.

We offer:

- Involvement in the current research activities of two leading institutes in the field of operations management
- Partnership-based working atmosphere and an appropriate supervisory relationship
- Openness to a huge variety of qualitative and quantitative methods as well as your own topic ideas

We expect:

- Advanced university degree in the field of economics, business administration, (industrial) management, engineering, or similar
- Result-oriented and structured way of working with a high level of motivation
- Very good skills (written and spoken) in English