

## Digital Transformation for a Sustainable Supply Chain Future

In today's rapidly evolving business environment, firms are under immense pressure to balance profitability with sustainability, a challenge particularly complex within supply chain management (SCM). Companies face increasing scrutiny from consumers, investors, and regulators to meet sustainability goals while maintaining competitive advantage. However, aligning digital investments with sustainability efforts remains a considerable hurdle, often leaving firms unsure of the best digital tools and practices to support their sustainability objectives. This research directly addresses these issues, focusing on how firms can leverage digital capabilities to enhance sustainability within their supply chains. By examining how digital solutions can reduce environmental impact, optimize resources, and strengthen resilience, this study aims to provide a roadmap for firms striving to meet stakeholder expectations and regulatory standards while improving operational efficiency.

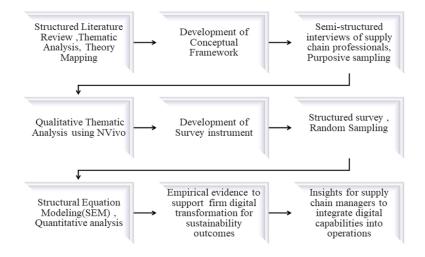
## **Exploring the Digital Blueprint**

The core question guiding this research is: How do firm-level digital capabilities enhance sustainability in supply chain management? Anchored in the Resource-Based View (RBV) theory, the study investigates digital capabilities as unique assets that contribute to competitive advantage. The research employs a three-phase approach: a systematic literature review

to identify existing digital strategies, followed by qualitative interviews with supply chain and sustainability leaders, and finally, a quantitative survey to validate the findings across industries. This interdisciplinary methodology draws on insights from technology, sustainability, and SCM, offering a robust framework for firms to assess and implement digital tools that support sustainable practices, thus bridging theory with actionable outcomes for real-world applications. The summarized details of research methodology and expected outcomes of this study are mentioned in the image below.

## Paving the Way to a Sustainable Future

The findings from this research will provide actionable insights for firms looking to enhance their sustainability initiatives through digital transformation. By identifying the specific digital capabilities that yield measurable sustainability benefits, companies can make informed decisions on technology investments. This framework will allow businesses to prioritize digital strategies that align with their sustainability targets, thereby enhancing their market reputation and meeting stakeholder demands for transparency. Additionally, the study's insights will serve as a resource for supply chain managers and sustainability officers, offering strategies for integrating digital capabilities into daily operations to drive long-term sustainability.





Wajid Aziz Dar MSMS

Business Economics

Islamabad, Pakistan Waj\_dar@uni-bremen.de International Graduate School for Dynamics in Logistics Contact: Dr.-Ing. Ingrid Rügge

Universität Bremen Hochschulring 20 28359 Bremen, Germany

www.logistics-gs.uni-bremen.de

