Introduction to Operations Management Research Design

Research design - from research idea, via theory, method choice, to data analysis and publishing

Dr. Gerald Reiner holds a Magister Degree, a doctorate degree and Habilitation in Business Administration from the Vienna University of Economics and Business (WU). Between 2007 and 2014 he was full professor in Production Management and Logistics at the University of Neuchatel (Switzerland). Between 2014 and 2018 he was full professor in Production Management and Logistics and head of the department of Operations, Energy, and 'Environmental Management at Universitaet Klagenfurt (Austria). Furthermore, he was visiting professor at the Aston Business School (UK), HEC Lausanne (Switzerland), University of Bergamo and Università Cattolica del Sacro Cuore in Milan (Italy). In 2018 he joined WU as full professor in Operations Management at the institute of Production Management at WU. Since 2008 he was coordinator, member of the steering board, and project partner in international research projects such as EU-project "Keeping Jobs in EU" (http://www2.unine.ch/iene-kje) and EU/Ecsel-project "Power Semiconductor and Electronics Manufacturing 4.0" (http://www.semi40.eu/).

His research interests are in the following fields, Industry 4.0, Integrated capacity and inventory management, Integrated supply and demand management, Lead-time reduction, Instore operations for perishable products, Humanitarian logistics operations (i.e., disaster capability management, capacity management and purchasing), Operations management for base of the pyramid, Circular supply chains.

Retail store logistics operations and food waste

This research study focuses on the issue of food waste from a retail and store operations perspective, with the aim to identify the root causes of food waste occurrence at a retail store level across different store formats and product categories. To achieve this, we first conducted case studies, including semi-structured interviews with store managers. This exploratory research involved 28 cases across dominant retail store formats (i.e., super- and hypermarkets and discount and convenience stores). The results along with secondary data research underlie a process simulation modeling approach that quantifies the impact of selected root causes of food waste by considering the dependencies between them. Finally, we conducted semi-structured interviews with 12 food waste experts to confirm findings of the case studies and simulations and to delineate the practical implications of our research and the related solutions. Our findings show that the root causes of food waste are related to undesirable customer behavior and erratic demand, inefficient store operations and replenishment policies, and elevated product (quality) requirements of both retail organizations and customers. Root causes and their impacts differ across store formats and product categories. Furthermore, the interdependencies between the root causes in the different spheres of responsibility and influence (i.e., customers, the store, and the parent organization) are evident. The research study contributes to the literature by providing detailed understanding of retail operations related to the occurrence of food waste across store formats at a product-category level and revealing pathways for preventing and reducing the occurrence of food waste at a retail store level.