

The Research Centre of the Faculty of Economics
cordially invites you to a research seminar
on **Tuesday, 26th September 2017**
at **13 p.m.** in room **P-119**
at the **Faculty of Economics, University of Ljubljana**

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Author: **prof. dr. Luk N. Van Wassenhove, INSEAD**

will present the article:

“Pushing the Boundaries of Traditional Operations Management: Closed-Loop Supply Chains and Humanitarian Operations”

“Both Closed-Loop Supply Chains (CLSCs) and Humanitarian Operations (HOs) are relatively new research areas in the discipline of Operations Management which traditionally covers subjects like production and inventory management, supply chains, warehousing and transportation, and the like. Most of what we call Operations Management has been developed for commercial operations in a relatively well-defined and controlled forward supply chain in which products are assembled and then delivered to customers.

I have been very privileged to be one of the pioneers in two relatively new and different research areas. In Closed-Loop Supply Chains products are returned when customers no longer need them and given a new life after remanufacturing. These supply chains are therefore no longer linear from producer to customer but rather circular or closed-loop in nature. In Humanitarian Operations the context is far from being well-defined and controlled, especially in the immediate aftermath of a major disaster like an earthquake. These supply chains are highly uncertain, need to be agile and typically face severe resource constraints. Studying Closed-Loop Supply Chains and Humanitarian Operations requires one to push the boundaries of traditional Operations management, exploring new insights, methods and frameworks which are adapted to these different contexts.

Humanitarian Operations often need to be executed in chaotic environments in the aftermath of a huge sudden-onset disaster like an earthquake. An emergency supply chain quickly needs to be established from scratch in uncertain and stressful circumstances, e.g. under many aftershocks, security risks in conflict zones, infrastructure like roads and bridges destroyed, debris blocking access, information systems being down, with lack of funding, supplies, equipment and personnel. In short, HOs are different from commercial operations, i.e. the earthquake in Haiti is very unlike producing and distributing automobiles in the USA. These differences require the development of new methods and insights. Humanitarian operations also deal with reducing the suffering of victims, and one would like to help as many people as possible, fast and in an equitable way. That is very different from the typical objective function of a private company trying to fill orders from paying clients on time and at the lowest cost. While most people would agree that the humanitarian operations context is very different, many people in our discipline today still argue that there is nothing new here, i.e. it is merely a different field of application for our standard operations knowledge. Unfortunately, they are mistaken.

The research field of Humanitarian Operations is relatively young. I rolled into it around 2000. At the time, operations and logistics received little or no attention in humanitarian organizations and consequently there were almost no resources allocated to building competences in systems and people. Over the past 15 years academics have worked with humanitarian practitioners to design and implement supply chains. A new and quickly growing applied research discipline has developed within Operations Management. I shall present this development, the specifics of the humanitarian context, and the opportunities for further research work in this area. It should be obvious that our discipline of Operations Management can make a big impact in this area.

Closed-Loop Supply Chains did not exist as a discipline in Operations Management before 1990. Around that time I visited a Xerox factory and noticed that they were actually putting used components in the assembly of what they called their green line of copiers. These copiers were so-called remanufactured machines and were sold with the same quality guarantee but at about 60% of the price of a new copier. Clearly, this remanufacturing practice raised multiple issues concerning design, access to used products for recovery of components, production and inventory planning, costing, potential cannibalization of new product sales, and many others. We started looking into all of these problems from a research perspective with a small group of faculty and students. Today, this research field has become one of the largest in Operations Management.

Clearly, many of the products we discard still have a lot of added value in them. Throwing them away is wasteful and may have a strong negative environmental impact. Many products can be refurbished and put on the market again in a profitable way. Then, at the end of a product's life one can also often profitably recycle a product to recover valuable materials and avoid land fill. Product life extension through remanufacturing, and material recovery through recycling are business models to be seriously considered from a profit as well as a sustainability perspective. Leasing models make closed-loop supply chain management easier since the producer has access to the product and information on how it was used. Whereas CLSC research did not exist 30 years ago, it is now very much at the centre of discussions on sustainability and the recent buzz around the Circular Economy aimed at minimizing waste in our production and consumption systems. Just like for Humanitarian Operations, many in our discipline at first did not believe that CLSCs were different and deserved special study. They were wrong. Like Humanitarian Operations, Closed-Loop Supply Chains will only gain importance in the future. I shall discuss the origins of CLSCs as an academic discipline within Operations Management, its current state as well as future research opportunities.

Our world is constantly changing at a disturbing speed. This requires academics to push the boundaries of their field, at least if they do not wish to end up like dinosaurs in a museum. ”

You can register for the free seminar by phone (01) 58-92-490, or via e-mail:
research.seminars@ef.uni-lj.si by Monday, 25th September 2017.

You can find all information regarding future research seminars on following link:
http://www.ef.uni-lj.si/raziskovanje/seminarji_in_konference

We look forward to seeing you!

