

Cross-Border Capacity-Building for Port Ecosystems in Small and Medium-Sized Baltic Ports

Christopher Meyer

Hochschule Wismar
University of Applied Sciences:
Technology, Business and Design
Philipp-Müller-Str. 14
Wismar 23966, Germany

Tallinn University of Technology
Ehitajate tee 5
Tallinn 19086, Estonia
Email: christopher.meyer@hs-wismar.de

Laima Gerlitz

Hochschule Wismar
University of Applied Sciences:
Technology, Business and Design
Philipp-Müller-Str. 14
Wismar 23966, Germany
Email: laima.gerlitz@hs-wismar.de

Lawrence Henesey

Blekinge Institute of Technology
Biblioteksgatan 4
Karlshamn SE-37424, Sweden
Email: lhe@bth.se

Abstract: One of the key challenges related to the threat posed by the COVID-19 pandemic is preservation of employment and protecting staff who are working in port operations and struggling to keep ports operating for ship calls. These activities performed by port labour are deemed to be crucial for the EU and European ports, since 75% of the EU external trade and 30% of intra-EU transport goods are moved by waterborne transport. As a response to the global lockdown and the vulnerability of global supply chains, the majority of international organisations and maritime ports networks have shortlisted measures necessary to keep the severe

effects of the lockdown to a minimum. One of the key measures identified is how to limit physical interaction. As an effect, millions of people and organisations across the globe have had to use and/or increase their deployment of digital technologies, such as digital documentation, tracing information systems and digital group-working platforms. Hence, blockchain and data-enabling systems have become to be recognised as a core element maintaining the uninterrupted flow of goods and services at ports.

In pursuing uninterrupted trade and keeping ports open and running, this research paper addresses how the current situation afflicts the small and medium-sized ports located on the Baltic Sea which are argued to be critical actors of the port-centric logistics' ecosystem. Given the topicality of this research and addressing the research gap, the authors suggest a conceptual capacity-building framework for port employees. This suggested framework is based on empirical insights: primary and secondary data collected from the project Connect2SmallPorts, part-financed by the Interreg South Baltic Programme 2014–2020 from the European Regional Development Fund (ERDF). The conceptual framework aims towards a practical training programme dedicated to fill in the missing skills or expand the limited competence of human resources and ports' capacity when adapting or advancing digitalisation in the ports' ecosystems. In particular, specific areas of capacity building are addressed and individual solutions suggested to foster a digital transformation of ports. The conceptual training framework is designed as a training tool indicating opportunities to help ports upgrade their competences with the blockchain technology, and to advance their transportation, environmental and economic performance with improved digitalisation. For this purpose, the conducted research employed mixed methods and applied concepts and approaches based on the field of management. For example, the construct of absorptive capacity, organisational learning, transformation, resource-based view and the concept of dynamic capabilities are included in the ecosystem discourse and are linked with open innovation and service design. The research presented in this article provides both theoretical and practical contributions, in which the affected stakeholders can test and utilise the developed tool as well as transfer it to other regions.

Keywords: *blockchain, capacity building, digital transformation, digitalisation, small ports, the Baltic Sea, training*