| Record Nr.              | UNINA9910582201103321   |
|-------------------------|---|
| Autore                  | Verhoeven Peter   |
| Titolo                  | Management model for social and environmental impact in logistics through blockchain technologies   |
| Pubbl/distr/stampa      | Berlin, : Universitätsverlag der Technischen Universität Berlin, 2022   |
| Descrizione fisica      | 1 electronic resource (208 p.)  |
| Collana                 | Schriftenreihe Logistik der Technischen Universität Berlin  |
| Soggetti                | Management & management techniques Business strategy  |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Sommario/riassunto      | In the context of the advancing digitalization of logistics processes,<br>blockchain technologies are gaining in importance. Within the scope of<br>sustainable logistics networks, they contribute to cross-stakeholder<br>transparency and support the tracking and verification of products and<br>processes to improve social and environmental parameters. The goal of<br>this work is to develop a holistic management model to help users<br>understand blockchain technologies in the context of their logistics<br>network and to assess the mindful adoption of these technologies to<br>specific problems. In addition, the model should enable the conclusion<br>of expected impacts on participating actors within the logistics network<br>with regard to social and environmental sustainability and, in a further<br>step, provide a holistic approach to the implementation of blockchain<br>technologies. Methodologically, a systematic literature analysis, two<br>workshops and a case study exploration will be conducted for this<br>purpose. Within the systematic literature analysis, 285 articles are<br>evaluated and 53 relevant articles are synthesized. Based on the<br>Nominal Group Technique, a first workshop with 30 experts from<br>manufacturing companies, logistics service providers, technology<br>companies and universities will be conducted and supplemented by a<br>subsequent survey. In a second workshop, three use cases of<br>blockchain technologies are analyzed with 24 experts in open and |

1.

moderated group discussions. Finally, three exemplary case studies and eight expert interviews are conducted and systematically evaluated with respect to cross-case findings. The result of this thesis is a fourphase management model that guides users through the process of evaluating and implementing blockchain technologies in the context of sustainable logistics. While the first phase assesses requirements of the logistics network for general applicability of blockchain technologies, the second phase includes a model for the mindful adoption of blockchain technologies. Based on this, phase three provides a sustainability impact model to explain social and environmental impacts of individual actors involved in the logistics network. The fourth phase ultimately represents the implementation of blockchain technologies in logistics and is based on five management areas in which specific design recommendations, methods and tools are provided to enable a successful implementation. Finally, the thesis provides an outlook on a future vision and shows which changes in logistics networks can be expected due to blockchain technologies.