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Autore	Blaschke Florian
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Nota di contenuto	Intro -- Foreword by Atila Wohllebe -- Foreword by Stefan Waitzinger -- Acknowledgment -- Contents -- Abbreviations -- List of Figures -- List of Tables -- 1 Introduction -- 2 Literature Review -- 2.1 Basic Definitions -- 2.1.1 Data and Big Data -- 2.1.2 Analytics -- 2.1.3 Digital Twin -- 2.1.4 Decision Making -- 2.2 Data Quality Management -- 2.2.1 Data Quality -- 2.2.2 Data Quality Management -- 2.2.3 Corporate Data Quality Management -- 2.2.4 Data Quality Dimensions -- 2.3 Digital Twin -- 2.3.1 Digital Twin for Decision Making -- 2.3.2 Process Digital Twin -- 2.3.3 Five-Dimensional Digital Twin -- 2.3.4 Requirements -- 2.3.5 Industry Dissemination -- 2.3.6 Benefits -- 2.4 Decision Support System -- 2.4.1 Decision Support System -- 2.4.2 Model-Driven Decision Support System -- 2.4.3 Characteristics -- 2.5 Summary-Digital Twin-Driven Decision-Making Model -- 3 Objectives -- 3.1 Strategic Positioning -- 3.2 Digital Twin-Driven Decision-Making Model -- 3.3 Operational Effectiveness -- 4 Materials and Methods of Dissertation -- 4.1 Research Design -- 4.2 Data Collection and Sample Description -- 4.2.1 Data Collection Procedure -- 4.2.2 Sample Description -- 4.3 Methods for Data Analysis -- 5 Results and Evaluation -- 5.1 Data Analysis-Preliminary Study -- 5.1.1 Strategic Positioning -- 5.1.2 The Digital Twin-Driven Decision-Making Model -- 5.2 Data Analysis-Main Study -- 5.2.1 Strategic Positioning

-- 5.2.2 The Digital Twin-Driven Decision-Making Model -- 5.2.3 Operational Effectiveness -- 6 Conclusions and Recommendations -- 6.1 Conclusion of Hypotheses -- 6.2 Recommendations -- 6.3 Practical Implications -- 6.4 Limitations -- 7 New Scientific Results -- 8 Summary -- References.

Sommario/riassunto

This dissertation by Florian Blaschke explores the implementation and benefits of digital twin technology in decision-making and data quality management. With a focus on applications within manufacturing and e-commerce, the work highlights how digital twins, as virtual representations of physical systems, can optimize operations, enhance data accuracy, and support informed decision-making processes. The study delves into the potential of digital twins to improve productivity, reduce costs, and personalize consumer experiences. It emphasizes the importance of data quality management and suggests that digital twins will become increasingly vital in research and practice, particularly in the context of Industry 4.0. The book targets professionals and academics interested in the intersection of management, IT, and emerging technologies.
