1. Record Nr.   UNINA9910473452403321

   Autore   Lemke Claudia

   Titolo   Accounting and Statistical Analyses for Sustainable Development :
                     Multiple Perspectives and Information-Theoretic Complexity Reduction

   Pubbl/distr/stampa Springer Nature, 2021
                     Wiesbaden : , : Springer Fachmedien Wiesbaden GmbH, , 2021
                     ©2021

   ISBN   3-658-33246-8

   Descrizione fisica 1 online resource (288 pages)

   Collana   Sustainable Management, Wertschopfung und Effizienz

   Soggetti   Environmental economics

   Lingua di pubblicazione Inglese

   Formato   Materiale a stampa

   Livello bibliografico Monografia

   Nota di contenuto Intro -- Preface -- Foreword -- Acknowledgement -- Table of contents
                     -- List of abbreviations -- List of figures -- List of tables -- List of
                     equations -- List of symbols -- Chapter 1 Introduction -- 1.1
                     Background and motivation -- 1.2 Research question and aim of the
                     dissertation -- 1.3 Procedure -- Chapter 2 Conceptual framework of
                     sustainable development -- 2.1 Definition of sustainable development
                     and sustainability -- 2.2 The three contentual domains of sustainable
                     development -- 2.2.1 Environmental protection -- 2.2.2 Social
                     development -- 2.2.3 Economic prosperity -- 2.2.4 Integration of the
                     three contentual domains -- 2.3 Stakeholders and change agents of
                     sustainable development -- 2.3.1 The multilevel perspective -- 2.3.2
                     Corporate sustainability -- 2.3.3 Political goal setting: The United
                     Nations's (UN) Sustainable Development Goals (SDGs) -- 2.3.4
                     Sustainability science -- 2.4 Summary -- Chapter 3 Measuring and
                     assessing contributions to sustainable development -- 3.1 Principles of
                     sustainable development measurement and assessment methods --
                     3.2 Overview of quantitative sustainable development assessment
                     methods -- 3.3 Sustainable development indicators -- 3.3.1 Corporate
                     indicator frameworks -- 3.3.2 Meso-level indices -- 3.3.3 Macro-level
                     indices -- 3.4 Summary -- Chapter 4 Methodology -- 4.1 Overview of
                     sustainable development indices' calculation steps and methodological
                     requirements -- 4.2 Methodological evaluation of sustainable

Sommario/riassunto

In this Open Access publication Claudia Lemke develops a comprehensive Multi-Level Sustainable Development Index (MLSDI) that is applicable to micro, meso, and macro objects by conducting methodological and empirical research. Multi-level comparability is crucial because the Sustainable Development Goals (SDGs) at macro

level can only be achieved if micro and meso objects contribute. The author shows that a novel information-theoretic algorithm outperforms established multivariate statistical weighting methods such as the principal component analysis (PCA). Overcoming further methodological shortcomings of previous sustainable development indices, the MLSDI avoids misled managerial and political decision making.