Record Nr. UNINA9910736027903321 Handbook of Systems Sciences [[electronic resource] /] / edited by Gary **Titolo** S. Metcalf, Kyoichi Kijima, Hiroshi Deguchi Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2020 **ISBN** 981-13-0370-3 Disciplina 658.4038 Soggetti Knowledge management Service industries Management Industrial management **Evolutionary economics** Economic sociology **Knowledge Management** Services Innovation/Technology Management Institutional/Evolutionary Economics Organizational Studies, Economic Sociology Lingua di pubblicazione Inglese **Formato** Materiale a stampa

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Sommario/riassunto

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The primary purpose of this handbook is to describe current theories related to the systems sciences, and to support their use and practice. There are many ways in which systems sciences have been applied and interpreted. This handbook takes a multifaceted view of systems sciences, using examples across a relatively large number of knowledge domains, from natural and engineering science to social science and systems management perspectives. It is not the editors' intent to produce a comprehensive catalog of systems science concepts, methodologies, tools, or products. Instead, the focus is on the structural network of ideas and applications. Special emphasis is given to a cyclic—interrelated view; for example, when a theory of systems

sciences is described, there is also discussion of how and why the theory is relevant to modeling or practice in reality. Such an interrelationship between theory and practice is also illustrated when an applied research field in systems sciences is explained. The chapters in the handbook present definitive discussions of systems sciences from a wide array of perspectives. The needs of practitioners in industry and government as well as students aspiring to careers in systems sciences provide the motivation for the majority of the chapters. The handbook begins with a comprehensive introduction to the coverage that follows. It provides not only an introduction to systems sciences but also a brief overview and integration of the succeeding chapters in terms of a knowledge map. The introduction is intended to be used as a field guide that indicates why, when, and how to use the materials or topics contained in the handbook.