1. Record Nr. UNINA9910797572503321 Autore Ganesh K. **Titolo** Resource allocation problems in supply chains // by K. Ganesh, McKinsey & Company, Inc., Chennai, India [and three others] Bingley:,: Emerald Insight,, 2015 Pubbl/distr/stampa 1-78560-398-1 **ISBN** Edizione [First edition.] 1 online resource (197 p.) Descrizione fisica 658.7 Disciplina Soggetti Resource allocation - Mathematical models Mathematical optimization Programming (Mathematics) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Front Cover; Resource Allocation Problems in Supply Chains; Copyright Nota di contenuto page; Abstract; Contents; List of Tables; List of Figures; List of Symbols and Abbreviations; About the Authors; Section 1 Introduction; 1.1. Supply Chain Management; 1.2. Resource Allocation Problems in Supply Chain; 1.3. Motivation of Resource Allocation Problems; 1.3.1. Resource Allocation Variant in Bi-Objective Capacitated Supply Chain Network; 1.3.2. Resource Allocation Variant in Bi-Objective Bound Driven Capacitated Supply Chain Network 1.3.3. Resource Allocation Variant in Multiple Measures Driven Capacitated Multi-Echelon Supply Chain Network1.3.4. Resource Allocation Variant in Integrated Decision and Upper Bound Driven Capacitated Multi-Echelon Supply Chain Network; 1.3.5. Resource Allocation Variant in Integrated Decision and Time Driven Capacitated Multi-Echelon Supply Chain Network: 1.3.6. Resource Allocation Variant in Integrated Decision, Bound and Time Driven Capacitated Multi-Echelon Supply Chain Network; 1.4. Scope of the Present Study; Section 2 Literature Review; 2.1. Resource Allocation Problem 2.2. Review of the RA Variants Addressed in Current Research2.2.1. Bi-

Objective Generalized Assignment Problem; 2.2.2. Multi-Commodity Network Flow Problem; 2.2.3. Multiple Measures Resource Allocation

Problem; 2.2.4. Mixed Capacitated Arc Routing Problem; 2.2.5. Employee Routing Problem; 2.2.6. Vehicle Routing Problem with

Backhauls with Time Windows; 2.3. Observations and Research Gap; 2.4. Summary: Section 3 Bi-Objective Capacitated Supply Chain Network: 3.1. Bi-Objective Resource Allocation Problem with Varying Capacity; 3.2. Solution Methodology to Solve BORAPVC 3.2.1. Mathematical Programming Model for BORAPVC3.2.2. Simulated Annealing with Population Size Initialization through Neighborhood Generation for GAP and BORAPVC; 3.2.2.1. Parameter settings for SAPING; 3.3. Computational Experiments and Results; 3.4. Conclusion; Section 4 Bi-Objective Bound Driven Capacitated Supply Chain Network: 4.1. Bi-Objective Resource Allocation Problem with Bound and Varying Capacity; 4.2. Solution Methodology to Solve IRARPUB; 4.2.1. Recursive Function Inherent Genetic Algorithm (REFING) for MCNF and BORAPBVC; 4.3. Computational Experiments and Results 4.3.1. Performance of Solution Methodology4.4. Case Study Demonstration: 4.4.1. Problem Identification and Discussion: 4.4.1.1. Patient Distribution System (PDS); 4.4.1.2. Input to the Central Body; 4.4.1.3. Flow chart for the allocation of patients; 4.4.1.4. Problem identification; 4.4.1.5. Assumptions; 4.4.2. Formulation of the Problem; 4.4.3. Model Testing: 4.4.4. Analysis of Results and Discussion: 4.4.5. Managerial Implications; 4.4.6. Summary for Case Study; 4.5. Conclusion: Section 5 Multiple Measures Driven Capacitated Multi-Echelon Supply Chain Network 5.1. Multiple Measures Resource Allocation Problem for Multi-Echelon Supply

Sommario/riassunto

Resource Allocation is the utilization of available resources in the system. This book focuses on development of models for 6 new, complex classes of RA problems in Supply Chain networks, focusing on bi-objectives, dynamic input data, and multiple performance measure based allocation and integrated allocation, and routing with complex constraints.