This book addresses the main challenges affecting modern logistics and supply chains and is organized according to five main themes: supply chain strategy and management, information and communication technology (ICT) for logistics and related business models, vertical and horizontal collaboration, intelligent hubs (e.g. ports and cities) and policy for sustainable logistics. The key findings presented are based on both extensive research and on business cases. The book examines logistics from a comprehensive viewpoint embracing the entire supply chain. The overarching advanced logistics and supply chain concept at the heart of this book endeavors to contribute to a sustainable intelligent transport system by making it more efficient, cost-effective, safe, reliable and competitive. Specifically, the book focuses on the need for a variety of supply chain, logistics and transport options, on the potential offered by technological developments, infrastructural and organizational aspects, information flows, the financial and legal domain, harmonization and the complexity of implementation. In closing, the book presents new approaches to the coordination of sound business and governance models.

The transport, storage and handling of goods impose a heavy burden on the environment. As concern for the environment rises, companies must take more account of the external costs of logistics associated mainly with climate change, air pollution, noise, vibration and accidents. Leading the way in current thinking on environmental logistics, Green Logistics provides a unique insight on the environmental impacts of logistics and the actions that companies and governments can take to deal with them. It is written by a group of leading researchers in the field and provides a comprehensive view of the subject for students, managers and policy-makers. Fully updated and revised, the 3rd Edition of Green Logistics takes a more global perspective than previous editions. It introduces new contributors and international case studies that illustrate the impact of green logistics in practice. There is a new chapter on the links between green logistics and corporate social responsibility (CSR) and a series of postscripts examining the likely effects of new developments, such as 3D printing and distribution by drone, on the environmental footprint of logistics. Other key topics examined in the book include: carbon auditing of supply chains; transferring freight to greener transport modes; reducing the environmental impact of warehousing; improving the energy efficiency of freight transport; making city logistics more environmentally sustainable; reverse logistics for the management of waste; role of government in promoting sustainable logistics; ideal for use on related courses, the 3rd Edition of Green Logistics includes indispensable online supporting materials, including graphics, tables and chapter summaries, as well as technical information and guidelines
for teachers and lecturers. The book is endorsed by the Chartered Institute of Logistics and Transport (CILT).

Logistics Transportation Systems Modern cities are facing the growing problem of congestion, poor air quality and lack of public space. To ameliorate the condition of goods transport in cities, sustainable city logistics planning is essential. It requires a collaborative approach among city logistics stakeholders for consolidated goods distribution inside city centers to minimize their negative impacts on city residents and their environment. The book presents theoretical studies, state of the art, and practical applications in the area of sustainable city logistics. It is composed of nine chapters. A brief description of the various chapters is provided as follows: Chapter 1 by Sharfuddin Ahmed Khan and Syed Tahaur Rehman presents a review of literature and future prospects on sustainable city logistics. Globalization, governmental rules, and regulations enforce decision makers and managers to incorporate sustainability every aspect of their decision making (DM) specifically in city logistics. The area of sustainable city logistics is still in its developing stage and not many authors explore sustainability aspects in city logistics. The focus of this chapter is to review existing literature related to city logistics that considered sustainability in DM. A total of 40 articles that were published between 2010 to 2019 have been considered and categorized in terms of objective of study, area of research focus such as qualitative, quantitative, case study etc., and multi criteria DM methods. Finally, future prospects and directions has been proposed in sustainable city logistics. Chapter 2 by Sätter Ezzati presents challenges and opportunities in maritime logistics empty container repositioning. Maritime logistics and freight transportation are extensive and complex sectors that involve large material resources and represent intricate relationships between trade-off the various decisions and policies affecting different components. Because of the globalization, e-market and high level of customization trends, the sector has faced diversified challenges on different levels of planning including designing, scheduling, fleet sizing, decisions about container ownership, leasing and empty container repositioning, uncertainty and collaboration opportunities that already has provoked advanced coordination and intelligent optimization techniques for its global operations from strategic and tactical perspectives. Large attention of this chapter concentrates on empty containers repositioning problem and potential pathways to address this issue and how container shipping companies can handle this challenge with the help of operations research techniques from the perspectives of shipping business industry. To do so, this chapter presents a comprehensive and systematic literature review mainly focused on recent publications correspond to these logistics that maritime industries are facing. Chapter 3 by Yisha Luo, Ali A laghbandrad, Tersoo K elechukuwu, and Amin Hammad addresses the theme of smart multi-purpose utility tunnels. In terms of sustainable practices, the conventional method of open cut utility installation has proven to be a short-term solution, considering its negative impact on the environment, and its social disruptive nature. An alternative to open cut utility installation is Multi-purpose Utility Tunnels (MUTs), as it offers an economic, sustainable, and easy to manage and inspect method of utility placement. The risks associated with MUTs are both natural and manmade. As a way of tackling these risks, smart MUTs with the use of sensors will reduce the effects of the risks while supporting the operation and maintenance processes for MUT operators. To enhance decision making, data collected from the sensors are used in the MUT Information Modelling (MUTIM). MUTIM includes the utility tunnel structural model with utilities, equipment, sensors, and devices that can be used for emergency management increasing the sustainability and resilience of smart cities. Chapter 4 by Léonard Ryo Morin, Fabian Bastin, Emma Frejinger, and Martin Trépanier model truck route choices in an urban area using a recursive logit model and GPS data. They explore the use of GPS devices to capture heavy truck routes in the Montreal urban road network. The main focus lies on trips that originate or depart from intermodal terminals (rail yard, port). They descriptively analyse GPS data and use the data to estimate a recursive logit model by means of maximum likelihood. The results show the main factors affecting the route choice decisions. Using this type of predictive models when planning and designing the transport network nearby intermodal terminals could offer opportunities to reduce the negative effects on truck movements, as the CO2 emissions. Chapter 5 by Akolade Adegoke presents a literature review on benchmarking port sustainability performance. Sustainable development agendas are challenging the world and ports, in particular, to find ways to become more efficient while meeting economic, social and environmental objectives. Although there has been a considerable body of documentation on port green practices and performance in Europe and America, there is limited synthesis about evaluation of sustainable practices in the context of Canadian ports. This chapter provides a review of literature and initiatives employed by global ports authorities and identifies major sustainability performance indicators. Chapter 6 by Silke Hoehl, Kai-Oliver Schocke, and Petra Schaefer presents analysis and recommendations of delivery strategies in urban and suburban areas. A research series about commercial transport started in the region of Frankfurt/Main (Germany) started in 2014. The first
project dealt with the commercial transport in the city centre of Frankfurt/Main. One hypothesis was that CEP vehicles are congesting the streets. A data base was built by collecting data in two streets in the centre of Frankfurt. Contrary to the expectation a significant part of commercial transport is caused by vehicles of craftsmen. After that, in 2016 the second project examined the delivery strategies of four CEP companies in Frankfurt. One research question was if CEP companies use different delivery strategies in different parts of the city. Therefore 40 delivery tours were accompanied and data was collected e.g. number of stops, number of parcels per stops, car type, transport situation, parking situation, shift lengths or GPS-track. In parallel, the traffic situation in several districts of Frankfurt were analyzed. In a third part, the two streams were put together to recommend delivery strategies for CEP-companies as well as useful insights for local authorities. As a third project of the research series a new project has just begun. The study area has been extended to the entire RheinMain region. It deals with the commercial transport and faces the challenge to manage commercial transport at a low emission level. On the one hand, the methodologies of the two preceding projects will be applied to a suburban area in the region. Recommendations will be developed. On the other hand, loading zones for electric vehicles in Frankfurt will be identified and developed. After that, a conference will give a wide overview of existing delivery concepts. By pointing out critical situations in the delivery chain, the whole last mile will be described. Chapter 7 by Shuai Ma, Jia Yu, and Ahmet Satir presents a scheme for sequential decision making with a risk-sensitive objective and constraints in a dynamic scenario. A neural network is trained as an approximator of the mapping from parameter space to space of risk and policy with risk-sensitive constraints. For a given risk-sensitive problem, in which the objective and constraints are, or can be estimated by, functions of the mean and variance of return, we generate a synthetic dataset as training data. Parameters defining a targeted process might be dynamic, i.e., they might vary over time, so we sample them within specified intervals to deal with these dynamics. We show that: i). Most risk measures can be estimated with the return variance; ii). By virtue of the state-augmentation transformation, practical problems modeled by Markov decision processes with stochastic rewards can be solved in a risk-sensitive scenario; and iii). The proposed scheme is validated by a numerical experiment. Chapter 8 by J.H.A. van Duin, B. Enserink, J.J. Daleman, and M. Vaandrager addresses the theme of sustainable alternatives selection for parcel delivery. The GHG-emissions of the transport sector are still increasing. This trend is accompanied by the strong growth of the e-commerce sector, leading to more transport movements on our road networks. In order to mitigate the externalities of the e-commerce related parcel delivery market and try to make it more sustainable, the following research question has been drafted: How could the last mile parcel delivery process become...

Sustainable Transportation and Smart Logistics This book is primarily intended to serve as a research-based textbook on sustainable supply chains for graduate programs in Business, Management, Industrial Engineering, and Industrial Ecology, but it should also be of interest for researchers in the broader sustainable supply chain space, whether from the operations management and industrial engineering side or more from the industrial ecology and life-cycle assessment side. Finding efficient solutions towards a more sustainable supply chain is increasingly important for managers, but clearly this raise difficult questions, often without clear answers. This book aims to provide insights into these kinds of questions for students and practitioners, based on the latest academic research.

Global Logistics This book focuses on the challenges and changes organizational management faces in an era when the need to develop environmentally aware processes meets high levels of competition. It covers the synergetic effects, how re-use, recycling, waste reduction, and other sustainable production strategies can add value, low costs and time of production. Sustainable business behavior is not only an environmental perspective on management, but more and more contains an organizational perspective. Taking into account these issues, green and lean management appears as the way managers can drive their employees to continuously improve the management processes that add value to the organization and customers. This book provides information on principles, strategies, models, and applications of green and lean management, and at the same time communicates the latest research activity relating to this scientific field world-wide.

Green and Lean Management Sustainable Transportation and Smart Logistics: Decision-Making Models and Solutions provides deterministic and probabilistic models for transportation logistics problem-solving and decision-making. The book presents an overview of the intersections between sustainability, transportation, and logistics, and delves into the current problems associated with the implementation of sustainable transportation and smart logistics in urban settings. It also offers models for addressing complex structural problems and...
procedures for estimating transportation externalities such as environmental and social impacts, both in industrial and government arenas, as well as decision-making models from operational, tactical, and strategic management perspectives. Sustainable Transportation and Smart Logistics also covers best practices for practical corporate policy implementation, making it a comprehensive and vital resource for researchers, graduate students, practitioners, and policy makers in transportation, logistics, urban planning, economics, engineering, and environmental science. Examines various modes of transportation Includes mathematical models for decision-making in a wide variety of situations Presents public transportation and smart cities use cases

Sustainable Logistics and Transportation This proceedings volume presents current research on transport sector development, with particular emphasis on sustainable transport development, innovation and transport enterprise growth and survival. Derived from the 2016 TranSopot Conference held in Sopot, Poland, this book aims to show the possibilities of maximizing the efficiency of transport, while keeping the negative effects at a sustainable level. Transport is an important field of human activity, both from economic and social points of view. It has been proven that the development of transport contributes to the development of regional, national and international economic relations. Currently, the three most important topics in transportation research are green transport, transport innovations and metropolitan transport. These are the areas in which the contributions presented in this book are focused. Researchers in the field of sustainable transport provide the reader with a comprehensive description of possible activities towards green transport both in the terms of various transport branches and in the supply chain as a whole. This is the framework of the second field of transport research – innovation. The authors present a wide array of a technological, organizational, process and marketing innovation, which allow transport organizers and operators to provide service in a safe, sound and economically favorable way. The analysis of these innovations and the practical implications of their introduction should be a worthwhile experience both for the transport researchers and for the transport business practitioners. Lastly, the book reflects the tendencies of rapid development in urban and metropolitan areas which forces transport policy makers to provide citizens with a comfortable and faster way of commuting that doesn't result in unacceptable congestion or other negative effects. Different concepts of metropolitan transport management are presented and their effect on the transport systems is also investigated.

Handbook of Global Logistics We look at green supply chain management from the vantage point of the triple bottom line: environmental, economic, and social. There are many sustainability decisions that can be made on which we have an incredible impact. Usually, managers have the opportunity to make decisions in five areas of the supply chain: plan, source, make, deliver, and return. Nowadays, consumers care more about where and how the products are produced and delivered, what they are made of, and who made them. Regulatory bodies are continuously creating pressure on firms to adopt eco-friendly practices in their businesses for better environmental sustainability. As a result, firms have just two choices: to adopt green and/or eco-friendly practices in their supply chain operations to fulfill their customers' and regulatory bodies' requirement or not to adopt green practices and lose their business position and potential customers.

Modeling and Optimization in Green Logistics Mobility is fundamental to economic and social activities such as commuting, manufacturing, or supplying energy. Each movement has an origin, a potential set of intermediate locations, a destination, and a nature which is linked with geographical attributes. Transport systems composed of infrastructures, modes and terminals are so embedded in the socio-economic life of individuals, institutions and corporations that they are often invisible to the consumer. This is paradoxical as the perceived invisibility of transportation is derived from its efficiency. Understanding how mobility is linked with geography is main the purpose of this book. The third edition of The Geography of Transport Systems has been revised and updated to provide an overview of the spatial aspects of transportation. This text provides greater discussion of security, energy, green logistics, as well as new and updated case studies, a revised content structure, and new figures. Each chapter covers a specific conceptual dimension including networks, modes, terminals, freight transportation, urban transportation and environmental impacts. A final chapter contains core methodologies linked with transport geography such as accessibility, spatial interactions, graph theory and Geographic Information Systems for transportation (GIS-T). This book provides a comprehensive and accessible introduction to the field, with a broad overview of its concepts, methods, and areas of application. The accompanying website for this text contains a useful additional material, including digital maps, PowerPoint slides, databases, and links to further reading and websites. The website can be accessed at: http://people.hofstra.edu/geotrans This text is an essential resource
Green Logistics and Transportation: A Sustainable Supply Chain Perspective

Greening of Industry Networks Studies for undergraduates studying transport geography, as well as those interest in economic and urban geography, transport planning and engineering.

Green Finance and Sustainability Focused on the logistics and transportation operations within a supply chain, this book brings together the latest models, algorithms, and optimization possibilities. Logistics and transportation problems are examined within a sustainability perspective to offer a comprehensive assessment of environmental, social, ethical, and economic performance measures. Featured models, techniques, and algorithms may be used to construct policies on alternative transportation modes and technologies, green logistics, and incentives by the incorporation of environmental, economic, and social measures. Researchers, professionals, and graduate students in urban regional planning, logistics, transport systems, optimization, supply chain management, business administration, information science, mathematics, and industrial and systems engineering will find the real life and interdisciplinary issues presented in this book informative and useful.

Sustainable Freight Transport This handbook includes three parts, corresponding to the following three domains of OR/MS research related to sustainability: (i) Systems Design, Innovation, and Technology, (ii) Manufacturing, Logistics, and Transportation, and (iii) Sustainable Natural Resource Management. The first part of the handbook (Chapters 2-6) will focus on the creation and development of sustainable products, services, value chains, and organizations from a systems perspective. Key areas to be covered include Green Design & Innovation, Technology and Engineering Management, Sustainable Value Chain Systems, Sustainability Standards and Performance Evaluation, and Circular Economy and New Research Directions in Sustainability. The second part of the handbook (Chapters 7-11) will concentrate on the major operational and logistic issues faced by today’s industries in pursuing sustainability. Key areas to be covered include Remanufacturing, Reverse Logistics, Closed-Loop Supply Chains, Sustainable Transportation, and New Research Directions in Green Supply Chain Management. The third part of the proposed handbook (Chapters 12-16) will center on major sustainability issues in managing engineering infrastructure and natural resources. Key areas to be covered include Renewable Energy, Sustainable Water Resource, Biofuel Infrastructure, Natural Gas, and New Research Directions in Sustainable Resource Management. The handbook aims to bridge the three main OR/MS research domains in sustainability: “Systems Design, Innovation, and Technology,” “Manufacturing, Logistics, and Transportation,” and “Sustainable Natural Resource Management.” Traditionally, these domains are treated separately in the OR/MS literature. By combining the three domains, the handbook will provide a more holistic treatment of OR/MS methodologies to address critical sustainability issues faced by today’s society. Unlike most existing handbooks which only focus on current OR/MS research in sustainability within a domain, this handbook will include a concluding chapter in each of the three parts to discuss and identify potential future research directions in each of the three main domains.

Green Supply Chain Management In today’s developing world, international trade is a field that is rapidly growing. Within this economic...
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market, traders need to implement new approaches in order to satisfy consumers' rising demands. Due to the high level of competition, merchants have focused on developing new transportation and logistics strategies. In order to execute effective transportation tactics, decision makers need to know the fundamentals, current developments, and future trends of intercontinental transportation. The Handbook of Research on the Applications of International Transportation and Logistics for World Trade provides emerging research exploring the effective and productive solutions to global transportation and logistics by applying fundamental and in-depth knowledge together with current applications and future aspects. Featuring coverage on a broad range of topics such as international regulations, inventory management, and distribution networks, this book is ideally designed for logistics authorities, trading companies, logistics operators, transportation specialists, government officials, managers, policymakers, researchers, academicians, and students.

The Green Logistics Company Solving Transport Problems establishes fundamental points and good practice in resolving matters regarding green transportation. This is to prompt further research in conveyance issues by providing readers with new knowledge and grounds for integrated models and solution methods. Focusing on green transportation, this book covers various sub-topics and thus consists of diverse content. Traditionally, academia and transport practitioners have mainly concentrated on efficient fleet management to achieve economic benefits and better-quality service. More recently, due to growing public environmental concerns and the industry understanding of the issue, the academic community has started to address environmental issues. The studies of green transportation compiled in this book have identified certain areas of interest, such as references, viewpoints, algorithms and ideas. Solving Transport Problems is for researchers, environmental decision-makers and other concerned parties, to start discussion on developing optimized technology and alternative fuel-based integrated models for environmentally cleaner transport systems.

Sustainable Logistics and Supply Chain Management (Revised Edition) Port Economics, Management and Policy provides a comprehensive analysis of the contemporary port industry, showing how ports are organized to serve the global economy and support regional and local development. Structured in eight sections plus an introduction and epilog, this textbook examines a wide range of seaport topics, covering shipping and international trade, port terminals, port governance, port competition, port policy and much more. Key features of the book include: Multidisciplinary perspective, drawing on economics, geography, management science and engineering Multisector analysis including containers, bulk, break-bulk and the cruise industry Focus on the latest industry trends, such as supply chain management, automation, digitalization and sustainability Benefitting from the authors' extensive involvement in shaping the port sector across five continents, this text provides students and scholars with a valuable resource on ports and maritime transport systems. Practitioners and policymakers can also use this as an essential guide towards better port management and governance.

Collaborative Logistics and Intermodality Best Practices in Green Supply Chain Management uses present case studies from the Indian and Mexican manufacturing industries to offer new insights on the challenges of integrating environmental awareness into supply chain management operations in developing countries.

Solving Transport Problems Logistics Transportation Systems compiles multiple topics on transportation logistics systems from both qualitative and quantitative perspectives, providing detailed examples of real-world logistics workflows. It explores the key concepts and problem-solving techniques required by researchers and logistics professionals to effectively manage the continued expansion of logistics transportation systems, which is expected to reach an estimated 25 billion tons in the United States alone by 2045. This book provides an ample understanding of logistics transportation systems, including basic concepts, in-depth modeling analysis, and network analysis for researchers and practitioners. In addition, it covers policy issues related to transportation logistics, such as security, rules and regulations, and emerging issues including reshoring. This book is an ideal guide for academic researchers and both undergraduate and graduate students in transportation modeling, supply chains, planning, and systems. It is also useful to transportation practitioners involved in planning, feasibility studies, consultation and policy for transportation systems, logistics, and infrastructure. Provides real-world examples of logistics systems solutions for multiple transportation modes, including seaports, rail, barge, road, pipelines, and airports Covers a wide range of business aspects, including customer service, cost, and decision analysis Features key-term definitions,
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concept overviews, discussions, and analytical problem-solving

Public Policies on Sustainable Logistics and the Impact on Third-Party Logistics Provider

The Geography of Transport Systems Seminar paper from the year 2014 in the subject Business economics - Supply, Production, Logistics, grade: 1.0, University of the Americas Puebla, language: English, abstract: This project examines different aspects about Green Logistics. First of all the project’s topic is defined to receive a first impression what it is about. This is followed by the drivers of Green Logistics and its paradoxes. Afterwards the environmental issue and the measures of Green Logistics are explained. Furthermore the subject of Green IT Solutions is pointed out. As last aspect there is an example of the use of Green Logistics of the company DHL. To complete the project in the conclusion there are some challenges described that Green Logistics may have to face.

Port Economics, Management and Policy Sustainable Logistics and Supply Chain Management is the essential guide to the principles and practices of sustainable logistics operations and the responsible management of the entire supply chain. Based on extensive research by experts in the field, this comprehensive book covers the whole scope of sustainable logistics. The book provides carefully reviewed researched applications and case studies that have been especially developed for this revised edition with particular attention for use in a teaching context. The mini case studies are highly topical, relating the theoretical concepts to practice and what is actually happening ‘on the ground’. Examining the subject in an integrated manner, this book examines all the key areas in sustainable logistics and supply chain management, including: sustainable product design and packaging; sustainable purchasing and procurement; cleaner production; environmental impact of freight transport; sustainable warehousing and storage; sustainable supply management; reverse logistics and recycling; supply chain management strategy, and much more. The book provides an excellent insight into the topic that will help managers, students, and scholars grasp the fundamentals of green supply and logistics management. This revised edition of Sustainable Logistics and Supply Chain Management includes valuable supporting online materials, including PPT presentations, chapter summaries, learning objectives, tips for teaching and in class activities.

Best Practices in Maritime Logistics sector to reduce environmental impact Today, one of the top priorities of an organization’s modern corporate strategy is to portray itself as socially responsible and environmentally sustainable. As a focal point of sustainability initiatives, green supply chain management has emerged as a key strategy that can provide competitive advantages with significant parallel gains for company profitability. In designing a green supply chain, the intent is the adoption of comprehensive and cross-business sustainability principles, from the product conception stage to the end-of-life stage. In this context, green initiatives relate to tangible and intangible corporate benefits. Sustainability reports from numerous companies reveal that greening their supply chains has helped reduce operating cost, thus boosting effectiveness and efficiency while increasing sustainability of the business. Green Supply Chain Management provides a strategic overview of sustainable supply chain management, shedding light on the theoretical background and key principles of the topic. Specifically, this book covers various thematic areas including benefits and impact of green supply chain management; enablers and barriers on supply chain operations; inbound and outbound logistics considerations; and production, packaging and reverse logistics under the notion of “greening”. The ultimate aim of this textbook is to highlight the challenges in the implementation of green supply chain management in modern companies and to provide a roadmap for decision-making in real-life cases. Combining chapter summaries and discussion questions, this book provides an accessible and student-friendly introduction to green supply chain management and will be of great interest to students, scholars and practitioners in the fields of sustainable business and supply chain management.

Sustainable Logistics and Supply Chains This book presents the latest technologies and operational methods available to support sustainable freight transport practices. It highlights market requirements, cutting edge applications, and case studies from innovators in the logistics services industry. The goal is to help bridge the gap between advanced computational techniques and complex applied problems such as those in sustainable transport and logistics operations. Freight transport has traditionally focused on costs and service levels. However, it is no longer possible or socially responsible to neglect the environmental, social, climate, and energy implications of the freight moving
Sustainable City Logistics Planning

Sustainable Supply Chains This book offers complete coverage of logistics, examining modes, general issues, logistics in specific regions, free-trade zones, innovations in international logistics, case studies and a look at the future.

Sustainable Logistics and Strategic Transportation Planning

Sustainable Transport Development, Innovation and Technology This book gathers together invited presentations from the 12th International Congress on Logistics and SCM Systems (ICLS2017) held in Beijing, China, August 20–23, 2017. The focus of the ICLS2017 was environmental sustainability in logistics and supply chains, particularly in the Asia-Pacific region. It addressed a variety of themes in the domains of green logistics and supply chain management (SCM), including green logistics and environmental impact, green SCM and business performance, green operations and optimization, supply chain sustainability, carbon management in logistics, and green SCM and corporate social responsibility (CSR). The editors selected high-quality presentations from the highly successful symposium, and invited the presenters to prepare full chapters for this book in order to disseminate their findings and promote further research collaborations. This timely book sheds new light on the theories and practices associated with greening logistics and SCM in Asia.

Green Logistics, Drivers, Paradoxes and Optimization This book presents recent work that analyzes general issues of green logistics and smart cities. The contributed chapters consider operating models with important ecological, economic, and social objectives. The content will be valuable for researchers and postgraduate students in computer science, information technology, industrial engineering, and applied mathematics.

Green Logistics and Transportation The tactical organization of resources is a vital component to any industry in modern society. Effectively managing the flow of materials through various networks ensures that the requirements of customers are met. Sustainable Logistics and Strategic Transportation Planning is a pivotal reference source for the latest research on the management of logistics through the lens of sustainability, as well as for emerging procedures that are particularly critical to the transportation sector. Highlighting international perspectives, conceptual frameworks, and targeted investigations, this book is ideally designed for policy makers, professionals, researchers, and upper-level students interested in logistics and transport systems.

Pursuing Sustainability Global logistics entails tradeoffs in facility location, distribution networks, the routing and scheduling of deliveries by different modes of travel (e.g., air, water, truck, rail), procurement, and the overall management of international supply chains. In an increasingly global economy, then, logistics has become a very important matter in the success or failure of an organization. It is an integral part of supply chain management that involves not just operations management considerations, but production engineering and regional science issues as well. As Director of the prestigious Waterloo Management of Integrated Manufacturing Systems Research Group (WATM IMS), which specializes in logistics and manufacturing, Jim Bookbinder is uniquely qualified to edit a handbook on global logistics. He has aligned a set of prominent contributors for this volume. The chapters in the Handbook are organized into discrete sections that examine modes; logistics in particular countries; operations within a free-trade zone; innovative features impacting international logistics; case studies of specific companies; and a look toward the future. Contributors are from the Americas, Europe, and Asia, and they push the state of the art in areas such as trade vs. security; border issues; cabotage within NAFTA; Green logistics corridors within the EU; inland ports;
Greening Logistics This book examines the state of the art in green transportation logistics from the perspective of balancing environmental performance in the transportation supply chain while also satisfying traditional economic performance criteria. Part of the book is drawn from the recently completed European Union project Super Green, a three-year project intended to promote the development of European freight corridors in an environmentally friendly manner. Additional chapters cover both the methodological base and the application context of green transportation logistics. Individual chapters look at the policy context; the basics of transportation emissions; Green Corridors basics; the concept of TEN-T (Trans-European Network); Benchmarking of green corridors; the potential role of ICT (Information and Communication Technologies); Green vehicle routing; Reducing maritime CO2 emissions via market based measures and speed and route optimization; Sulphur emissions; Lifecycle emissions; Green rail transportation; Green air transportation; Green inland navigation and possible areas for further research. Throughout, the book pursues the goal of "win-win" solutions and analyzes the phenomenon of "push-down, pop-up", wherein a change in one aspect of a problem can cause another troubling aspect to arise. For example, speed reduction in maritime transportation can reduce emissions and fuel costs, but could require additional ships and could raise in-transit inventory costs. Or, regulations to reduce sulphur emissions may ultimately increase CO2 elsewhere in the supply chain. The book takes stock at the various tradeoffs that are at stake in the goal of greening the supply chain and looks at where balances can be struck.

A Review of Green Logistics Schemes Used in Cities Around the World This book gives students a thorough overview of the environmental issues that impact the supply chain and details strategic methods of addressing the political, social, technological, market, and economic concerns that have caused organizations to reconsider their impact. Readers will learn how to integrate the fields of operations management, procurement and purchasing, logistics, and marketing into a successful green supply chain, looking outward to form sustainable partnerships rather than focusing their efforts within the company. Each chapter describes a function or dimension of green supply chains, supplemented with short vignettes to ground the theory in practice. The authors examine various industries, including electronics, food products, and manufacturing, and draw on case studies from the Americas, Europe, Asia, and Oceania, allowing students to compare and contrast domestic and international practices. Blending industry insights with the latest academic thinking, they also consider hot button topics like global-local relationships, the role of third parties, green multivendor supplier management, and blockchain technology management. Conclusive chapter summaries and plenty of visual aids help readers retain the information they need to improve environmental performance within, and beyond their organizations. Green Supply Chain Management is an excellent introduction to the topic for students and practitioners of supply chain management and environmental sustainability.

Efficiency in Sustainable Supply Chain The book focuses on efficiency analysis in enterprises and describes a broader supply-chain context to support improved sustainability. The research and its outcomes presented here provide theoretical and empirical studies on efficiency analysis in the supply chain, including operational, economic, environmental and social aspects. This book sheds new light on the efficiency-assessment framework for practitioners and includes essential tips on how to improve the sustainability of supply-chains operations.

Environmental Sustainability in Asian Logistics and Supply Chains Green Ports: Inland and Seaside Sustainable Transportation Strategies presents the first book to exclusively focus on this important topic that is usually only covered in brief chapters or journal articles that are too theoretical, fragmented or regionally-focused. This book comprehensively and systematically examines the key issues and best practice for understanding green ports and quantifying aspects of their environmental performance. This applied research book will help researchers formulate the needed research questions. Includes practical application tools and techniques for increasing sustainability throughout the entire transportation chain Provides an overall picture of green ports through a collection of expert specialists Examines how ports and surrounding areas are addressing the environmental impacts related to growth in the cruise business Presents a theoretical framework to identify best practices for planning and policymaking for the impacts posed by climate change
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Green Logistics And Transportation
A Sustainable Supply Chain Perspective
Greening Of Industry Networks
Studies

Sustainable Logistics “This book is devoted to examining a range of issues concerning green finance and sustainability covering sections on emerging environmentally aware business models, regulation and standard development, green ICT for sustainability, green finance and the carbon market, green manufacturing, logistics and SCM, and regional low carbon development” --Provided by publisher.

Best Practices in Green Supply Chain Management In a fast moving world the transportation of goods is expected to be more efficient than ever before. This compendia features papers that address key themes in green logistics such as benchmarking and energy efficiency and includes highly cited papers from international contributors such as Alan McKinnon and Joseph Sarkis.

Green Ports Master's Thesis from the year 2011 in the subject Business economics - Supply, Production, Logistics, grade: Distinction / 78%, University of Westminster, course: Logistics and Supply Chain Management, language: English, abstract: The logistics sector is growing rapidly. Freight transport has increased by 31 per cent between 1995 and 2005. As the volume of world trade rises, the European Commission predicts a further 50 per cent increase by 2020. But the logistics sector faces a number of challenges. Besides globalisation, means supply chains have become longer and more complex, increasing traffic congestion and soaring fuel prices, the logistics industry faces public and state environmental concerns, such as air and water pollution, energy con- sumption or waste disposal. Studies show that transportation and logistics can account for up to 75 per cent of a business's carbon footprint. National governments and the European Union have therefore introduced a number of measures to ‘green’ transport and in order to reduce greenhouse gas emissions. Policy-makers and their policies and regulations on sustainable logistics are assumed to play a critical role in the future development of sustainable logistics. The key research questions are Q1: How do 3PL companies see their current corporate activity in terms of sustainable logistics dependent on governmental policies and regulations? Q2: To what extent do 3PL firms think that governmental policies and regulations are necessary in order to shift the industry towards more sustainability? Q3: How do 3PLs assess the role of subcontractors on this topic and how will the logistics market be influenced by policies on sustainable logistics? The selection of the sampling is based on the exploratory sample which helps to generate deep insights into new ideas and people’s expertise. In total, five logistics experts were questioned through telephone and face-to-face semi-structured interviews. All experts work in different leading transport and logistics firms in executive positions.

Green Supply Chain Management This book presents new approaches to logistics solutions in global environments, with a special focus on collaborative logistics and intermodality. Contributions in this book are linked to two major initiatives in global logistics - H2020 MSCA-RISE-EU project EC-Asia Research Network on Integration of Global and Local Agri-Food Supply Chains Towards Sustainable Food Security (GOLF), and the International Conference on Logistics & Supply Chain (CiLOG). Topics covered in this book are: global logistics environments in manufacturing industries, key logistic decision-making parameters, global logistics management and its impact on container logistics processes, logistic market clusters and many more.

Green Supply Chain Logistic companies worldwide are facing new challenges in the next decade. Some important challenges and trends of environmental friendly operations in maritime logistics are outlined. The general trends entail, among others, the reduction of CO2/SOx/NOx, the design of more ecological shipping vessels, protect and enhance human health, recycle, re-use and remanufacture etc. A sustainable supply chain can be done in sustainable development by simultaneously delivering economic, social and environmental benefits – or what has been termed “the triple bottom line”. A large number of firms have reconfigured their sustainable supply chains to enhance end-customer value and competitive advantage. Implications caused by maritime sector or shipping companies are discussed and illustrated by some examples. A framework of “A.P. Moeller-Møller environmental strategies” gives a brief insight into those evolutionary logistics operations which propose to reduce the impact of logistical activities. These are new technologies, new policies, new practices and environmental management system.

Green Practices and Strategies in Supply Chain Management The integration of eco-friendly aspects, tools and solutions into a conventional supply chain leads to environmentally friendly global processes in the manufacturing and service industry. This book offers a selection of chapters that explain the impact of green supply chain solutions on value-making chains. The aim of this book is to help students at all levels as well as managers and researchers to understand and appreciate the concept, design and implementation of green supply chain
solutions in the Industry 4.0 era.