Practical Applications of Multicriteria Decision-Making in Supply Chain

Introduction

In a new complex and uncertain competitive landscape with characteristics of new forms of global competition, substantial continuous unpredictable often breakthrough change, rapid developments in technology, higher speed in decision-making processes and shorter product-life cycles, businesses need to have an intention to find the best alternative in all activities performed inside or outside. However, conventional techniques are not sufficient anymore to distinguish the best alternative among others due to higher level of subjectivity like halo effect, decision-makers' own experience, intuition, overconfidence, etc.
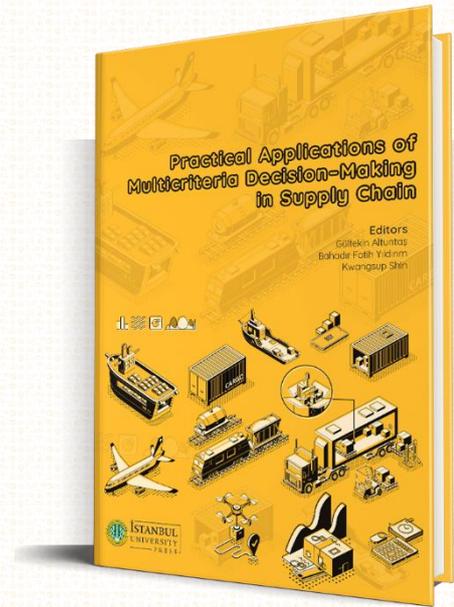
In addition, it should be noted that it costs a lot to take back a wrongful decision made due to the direct costs of the time spent on and those associated with engaging, monitoring, and correcting the mistakes as well as the indirect costs of loss in productivity, precision flexibility and quality, which contributes the crucial role decision-making process plays in business failures. Such a case requires a formal, systematic, rational and effective model integrating explicit criteria with analytical more precise techniques to overcome fuzzy, uncertain and incomplete information problem.

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Therefore, there is a need for a deeper understanding of a decision-making in a supply chain consisting of many businesses all around the world. This book adopts an integrated approach to provide a platform for scholars and practitioners to present some solutions to the real life multicriteria decision-making problems faced in a supply chain.

Objective

The purpose of this book is to provide a platform for researchers and scholars to discuss, to debate and to share their valuable ideas and to attract a number of high-quality research papers with both the theory and the application of Multiple Criteria Decision-Making (MDCM) methods in problematic areas of a supply chain, particularly in logistics. This special call holds a substantial potential to make significant contributions on advances in the MDCM literature from different operational and theoretical aspects, particularly in the logistics part of supply chain domain.

From the practical side, the chapters in this book will provide some useful insights to overcome modern challenges faced by practitioners in a supply chain. Thus, this special book will help better understanding the current multiple criteria approaches implemented in such a supply chain for the new industrial era.

Target Audience

This book is intended to serve young and novice researchers, management and operations scholars and students, beginners in the area of decision-making and practitioners of any supply chain, who face challenges in decision–making process. It is also expected to help as a guide to readers who would like to learn how to make effective decisions as well as to enhance their skills and knowledge.

Recommended Topics

Potential topics to consider for the chapters include, but are not limited to theories, methods part and application domains presented below.

Theories Part	Methods Part	Potential Subjects
• Crisp Sets • Intuitionistic Fuzzy Sets Theory • Grey System Theory • Fuzzy Set Theory • Hesitant Fuzzy Sets Theory • Interval-Valued Fuzzy Sets • Type-2 Fuzzy Sets • Pythagorean Fuzzy Set • Pentagonal Fuzzy Numbers	• AHP • ANP • ARAS • BWM • CODAS • COPRAS • CRITIC • DEA • DEMATEL • EDAS • ELECTRE • ERA • FARE • FUCOM • GRA • LINMAP • MABAC • MACBETH • MAIRCA • MAUT • MOORA • MULTIMOORA • ORESTE • PIPRECIA • PROMETHEE • PSI • QUALIFLEX • SAW • SMART • SMARTER • SWARA • TACTIC • TOPSIS • VIKOR • WASPAS	• Global Logistics Management • Innovation in Logistics • CRM in Logistics • Order Fulfilment • Reverse Logistics • 3PL / 4PL / 5PL • Sustainable and Green Logistics • Industry 4.0 and Logistics • E-Commerce and Logistics • Logistics Cost Management • Humanitarian Logistics • Purchasing / Procurement • Managerial Functions in Logistics Businesses • Warehouse and Inventory Management • Packaging and Material Handling • Shelving Systems • Warehousing Systems • City Logistics • Smart Technologies in Logistics • Signalization • Security Systems • Smart Vehicles • Traffic Management • Transportation Politics • International Trade and Customs • Logistics Information Systems • Network Design and Modeling • Forecasting • Optimization • Routing and Scheduling • Big Data ve Data Warehouses • Occupational Safety in Logistics • Transportation (Road / Sea / Air / Railway / Intermodal / Integrated) • Project Management in Logistics • Airport / Seaport / Terminal / Marina Problems, etc.

Submission Procedure

Submission Process

Manuscripts should not have been previously published or be under review in other books and/or journals. Submissions in the specified format should be sent to the Editors via MTS.

Review Process

Each paper is reviewed by the Editors and, if it is judged suitable for this publication, it is then sent to two referees for double blind peer review. Based on their recommendations, the Editor then decides whether the paper should be accepted as is, revised or rejected.

Manuscript Preparation

Each submission should be involved the following titles:

- Abstract
- Introduction
- Literature Review
- Methodology/Method
- Findings
- Conclusion

Besides, titles such as Theoretical Background and Discussion may be added arbitrary.

Abstract

The abstract of the submission should be included the sub-titles such as;

- Purpose,
- Methodology/Approach,
- Findings,
- Practical implications, and
- Originality.

Each sub-title should not contain more than 250 words.

Tables, figures and graphics

All figures and graphics in the text should be named and enumerated with serial numbers (as in Figure 1) in themselves and these numbers should be specified under the figure or graphic and tables should be named and enumerated in themselves with serial numbers to be specified on the table. Titles of tables, graphics and figures should be justified and written in bold and only the first letters should be in capitals.

Sources of tables, figures and graphics, if available, should be stated just under these tables, figures and graphics in accordance with the intertextual reference rules.

Equations

Mathematical and statistical symbols should be prepared with Microsoft Office Equation Editor or MathType software.

References

Citations in the text should follow the referencing style used by the American Psychological Association (APA).

References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication. Only the works used in the article should be included in the references.

Publisher

Scholarly publishing at Istanbul University has a deep-rooted past in parallel with the University's history.

Istanbul University extends back to 1453 when the New Age began in the world history. On that date, the educational institution called Fatih Madrasa was founded and it paved the way to Darülfünûn (the institutions of higher education) which evolved into Istanbul University in 1933. Throughout centuries, education in a number of sciences and fields (such as medicine, mathematics, astronomy, cartography, geography, history, philosophy, religion, literature, philology, law, etc.) became available.

Books and journals published by Istanbul University date from 1900s. Publishing in a number of subjects from all disciplines across science, medicine, social sciences and humanities, Istanbul University has had an ever-expanding portfolio of over 9 thousand books including monographs, academic reference, textbooks, books for professionals and books for graduate students. Besides books, academic journals published since 1900s constitute another significant asset. Darülfünûn Faculty of Medicine Journal, Darülfünûn Faculty of Letters Journal and Darülfünûn Faculty of Science Journal are the oldest journals that Istanbul University started to publish in 1916. These journals have been continued to be published with the changes in their titles.

Important Dates

Proposal Submission Deadline	:	January 31, 2020
Notification of Acceptance	:	February 14, 2020
Full Chapter Submission	:	March 27, 2020
Review Results Returned	:	April 15, 2020
Revised Chapter Submission	:	May 01, 2020
Final Acceptance Notification	:	May 15, 2020
Final Chapter Submission	:	June 05, 2020

Editors & Inquires

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