1. Record Nr. UNINA9910143426903321

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Titolo	Introduction to distribution logistics [[electronic resource] /] / Paolo Brandimarte, Giulio Zotteri
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2007
ISBN	1-280-95701-8 9786610957019 0-470-17005-0 0-470-17004-2
Descrizione fisica	1 online resource (608 p.)
Collana	Statistics in practice
Altri autori (Persone)	ZotteriGiulio <1970->
Disciplina	658.8
Soggetti	Network analysis (Planning) - Mathematics Production scheduling - Statistical methods Business logistics - Statistical methods Traffic flow - Mathematical models Physical distribution of goods - Mathematics Distribution (Probability theory)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to Distribution Logistics; Contents; Preface; 1 Supply Chain Management; 1.1 What do we mean by logistics?; 1.1.1 Plan of the chapter; 1.2 Structure of production/distribution networks; 1.3 Competition factors, cost drivers, and strategy; 1.3.1 Competition factors; 1.3.2 Cost drivers; 1.3.3 Strategy; 1.4 The role of inventories; 1.4.1 A classical model: Economic order quantity; 1.4.2 Capacity-induced stock; 1.5 Dealing with uncertainty; 1.5.1 Setting safety stocks; 1.5.2 A two-stage decision process: Production planning in an assemble-to-order environment 1.5.3 Inventory deployment1.6 Physical flows and transportation; 1.7 Information flows and decision rights; 1.8 Time horizons and hierarchical levels; 1.9 Decision approaches; 1.10 Quantitative models and methods; 1.11 For further reading; References; 2 Network Design and Transportation; 2.1 The role of intermediate nodes in a distribution network; 2.1.1 The risk pooling effect: reducing the uncertainty level;

2.1.2 The role of distribution centers and transit points in transportation optimization; 2.2 Location and flow optimization models; 2.2.1 The transportation problem
2.2.2 The minimum cost flow problem2.2.3 The plant location problem; 2.2.4 Putting it all together; 2.3 Models involving nonlinear costs; W.2.4 Continuos-space location models; W.2.5 Retail-Store Location Models; 2.6 For further reading; References; 3 Forecasting; 3.1 Introduction; 3.2 The variable to be predicted; 3.2.1 The forecasting process; 3.3 Metrics for forecast errors; 3.3.1 The Mean Error; 3.3.2 Mean Absolute Deviation; 3.3.3 Root Mean Square Error; 3.3.4 Mean Percentage Error and Mean Absolute Percentage Error; 3.3.5 ME%, MAD%, RMSE%; 3.3.6 Theil's U statistic
3.3.7 Using metrics of forecasting accuracy3.4 A classification of forecasting methods; 3.5 Moving Average; 3.5.1 The demand model; 3.5.2 The algorithm; 3.5.3 Setting the parameter; 3.5.4 Drawbacks and limitations; 3.6 Simple exponential smoothing; 3.6.1 The demand model; 3.6.2 The algorithm; 3.6.3 Setting the parameter; 3.6.4 Initialization; 3.6.5 Drawbacks and limitations; 3.7 Exponential smoothing with trend; 3.7.1 The demand model; 3.7.2 The algorithm; 3.7.3 Setting the parameters; 3.7.4 Initialization; 3.7.5 Drawbacks and limitations; 3.8 Exponential smoothing with seasonality
3.8.1 The demand model3.8.2 The algorithm; 3.8.3 Setting the parameters; 3.8.4 Initialization; 3.8.5 Drawbacks and limitations; 3.9 Smoothing with seasonality and trend; 3.9.1 The demand model; 3.9.2 The algorithm; 3.9.3 Initialization; 3.10 Simple linear regression; 3.10.1 Setting up data for regression; W.3.11 Forecasting models based on multiple regression; 3.12 Forecasting demand for new products; 3.12.1 The Delphi method and the committee process; 3.12.2 Lancaster model: forecasting new products through product features; 3.12.3 The early sales model; 3.13 The bass model
3.13.1 Limitations and drawbacks

Sommario/riassunto

unique introduction to distribution logistics that focuses on both quantitative modeling and practical business issues Introduction to Distribution Logistics presents a complete and balanced treatment of distribution logistics by covering both applications and the required theoretical background, therefore extending its reach to practitioners and students in a range of disciplines such as management, engineering, mathematics, and statistics. The authors emphasize the variety and complexity of issues and sub-problems surrounding distribution logistics as well as the limitations and sco