Foreword – Second Edition

In a recent interview, I was asked what the two most promising areas in the field of forecasting were. My answer was “Data Science” and “Supply Chain” that combined, were going to fundamentally shape the theory and practice of forecasting in the future, providing unique benefits to business firms able to exploit their value. The second edition of *Data Science for Supply Chain Forecasting* is essential reading for practitioners in search of information on the newest developments in these two fields and ways of harnessing their advantages in a pragmatic and useful way.

Nicolas Vandeput, a supply chain data scientist, is an academic practitioner perfectly knowledgeable in the theoretical aspects of the two fields, having authored two successful books, but who is also a consultant, having founded a successful company, and well connected with some of the best known practitioners in the supply chain field as referenced in his acknowledgments. The third part of this book has benefited from advice from another prominent practitioner, Michael Gilliland, author of the *Business Forecasting Deal* (2nd ed.) while Evangelos Spiliotis, my major collaborator in the M4 and M5 competitions, has reviewed in detail the statistical models included in the book.

Nicolas’ deep academic knowledge combined with his consulting experience and frequent interactions with experienced experts in their respected fields are the unique ingredients of this well-balanced book covering equally well both the theory and practice of forecasting. This second edition expands on his successful book, published in 2018, with more than 50% new content and a large, second part of over 150 pages, describing machine learning (ML) methods, including gradient boosting ones similar to the lightGBM that won the M5 accuracy competition and was used by the great majority of the 50 top contestants. In addition, there are two new chapters in the third part of the book, covering the critical areas of judgmental forecasting and forecast value added aimed at guiding the effective supply chain implementation process within organizations.

The objective of *Data Science for Supply Chain Forecasting* is to show practitioners how to apply the statistical and ML models described in the book in simple and actionable “do-it-yourself” ways by showing, first, how powerful the ML methods are, and second, how to implement them with minimal outside help, beyond the “do-it-yourself” descriptions provided in the book.

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