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ABOUT THE BOOK

It has been three years since the publication of the popular 2nd edition. The 3rd edition has more than doubled in length by the addition of the new parts such as Using DEA with Confidence, Advanced Concepts of DEA, and Teaching DEA in Classroom. Growth of this book reflects the increasing acceptance of DEA in the workplace, the world of research, and the university courses. In short, the 21st century is shaping as the coming of age of productivity analysis in the service sector.

DEA is a technique that allows for measurement of relative efficiency of organisational units. Its main strength lies in its ability to capture the interplay among multiple inputs and outputs, a process that cannot be satisfactorily probed through traditional ratio analysis.

The main purpose of this book remains that of providing a friendly hands-on reference for productivity analysis using DEA. The book brings productivity analysis within reach of people who do not have expertise in operations research or managerial science but are keen to gain an insight to their organisations.

The book concentrates on the DEA theory needed by the end-users, key model design issues, correct interpretation of DEA results, and advanced concepts of current DEA research. Case studies cover such areas as banking, tertiary education, property management, hospitality, health care, socially responsible investments, public transportation, pension funds, health insurance, and others. The book illustrates measurement of technical, cost, revenue and profit efficiencies, and distinguishes between technical efficiency and technological change. The book also details stochastic DEA, research designs to account for the impact of the environment on productivity, context-dependent DEA, incorporating value judgements, and imprecise DEA. The last part of the book provides seminar slides, case studies, and assignments for teaching DEA in the classroom.

Those who will benefit from this book include managers, administrators, consultants, students and academics. Combined with its downloadable data, the book is equally suitable for DEA workshops. The 3rd edition benefits from contributions by Professors Cooper, Lovell, Zhu, Weyman-Jones, Liu, Park, Fethi, Tripe, Meng, Zhang, Morita, Paradi, Sarkis, Burley, and Meimand. The following is an extract from the foreword by Professor Tim Coelli:

“Overall, this is a very well set out book that should inspire readers to ‘jump in and get their hands dirty’ in constructing DEA models relevant to the industries in which they operate, allowing them to obtain a range of new insights so as to help them better measure and analyse performance in their organisations.”