

The Craft of Decision Modelling

PATRICK RIVETT

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One of the more difficult tasks facing a conscientious teacher is to link the material being presented to the reality of the world in which it might be used. Several methods of tackling the problem are in use; from the simple provision of exercises, through the use of projects, to the extreme of secondment for a period to outside organizations. Rivett has chosen to bridge the gap by providing a text which essentially consists of nine case studies, called 'lives', linking them with discourses on topics in decision-making and modelling. These are often elevated to the status of principles; such as 'Forecasts should always make plain their assumptions' (p. 141).

The result is a book that does not fit into the usual framework of a text for study, since it does not teach the reader techniques, but rather how they might be used. It illustrates 'that rich weaving of theory, concepts, ideas, and problem formulation which forms the fabric of professional life' (p. 5). On this account, it is most refreshing and, unlike most books that receive attention from the Society, can actually be enjoyed. Throughout the book, there are delightful touches of humour that are not just there to amuse, but to shed real light on the discussion. But there is more than mere enjoyment to be gained. The case studies, given in such detail that the reader can follow all the calculations and often perform different analyses for themselves, really do illuminate this grey area between theory and application. Whilst the book would not be suitable as a text for a course, it should be essential reading to supplement the material in many courses.

Apart from the poor quality of the index, my only real criticism of this most interesting book is that the link with the technical material is not as strong as I would have wished. This may be personal bias, for I am not really happy without a bit of maths to make the material precise. It is too woolly for me. This could have been remedied by more references to the usual style of text. For example, in the eighth 'life' on competitive tendering, instead of saying 'this is a mathematical programming problem but, with only three lots, less exotic methods will suffice' (p. 204), the opportunity could have been taken to exhibit the link explicitly.

A similar criticism could be levelled against the principles, which are again all verbal and lacking a mathematical presentation, and hence lacking some precision. This does not prevent the principles being of use, far from it, but it does mean that the method of their implementation is not always apparent. Similarly, the statement that 'We lack unifying laws' (p. 173) is an exaggeration; there are laws of probability and the principle of maximization of expected utility has the status of a law in non-competitive decision-making.

These criticisms fade beside the solid achievement of this book in explaining and illustrating how OR can be used. One of our most experienced practitioners has distilled a lifetime's experience into a beautifully-written text which truly illuminates the power of OR. It could profitably be read by all who have any connection with management. The final sentence encapsulates the spirit of the book: 'OR is such fun and it is marvellous to be paid for doing something that is so enjoyable' (p. 297). As a statistician, I would love to see a book on statistics written in the same spirit.

D. V. LINDLEY

100 Statistical Tests

GOPAL K. KANJI

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This book needed to be written and the reaction of everyone I have shown it to has been 'why hasn't this been done before?'