Dynamic Optimization
(2nd edition)
M. I. KAMIEN and N. L. SCHWARTZ
North-Holland, Amsterdam, 1991. 377 + xvii pp. £31.00
ISBN 0 444 01609 0

Deciding whether you will find this book a useful addition to your library depends on whether or not you agree with the authors when they write:
'The tools of calculus of variations and optimal control are now nearly standard in economics and management science.'
The text continues:
'This text is devoted to expositing (sic) them and illustrating their range of application in these areas.'
The book is in two parts, each divided into self-contained sections dealing with a specific topic. Part 1 is concerned with the calculus of variations. Most of the content flows from the classical approach to such problems, developed by Euler and others from the 18th century onwards. There are a few references to modern examples of the use of the calculus, such as optimal timing of R & D effort subject to constraints and optimal management of fish stocks in a lake. But, on the whole, the treatment is mathematical. Even an expression familiar to OR scientists, 'sensitivity analysis', is treated as an exercise in differentiation and integration.

In Part 2, the sections are grouped under the banner of 'Optimal Control'. This part of the book could be of some interest to those who work on the interface of OR and control engineering, as it provides a succinct introduction to many of the topics at this application boundary. Here there are more expressions that occur in OR texts: dynamic programming, differential games, discounting. Once again the approach is from the calculus, with applications where the mathematical model is given and has to be solved. There is little discussion of the practicality of some of the models, and scant attempts to question matters of appropriateness and implementation.

There are two extensive appendices, devoted to calculus. The first looks at non-linear programming, the second at differential equations. Both are concise, and probably will not suffice for the newcomer to the subject — but will be enough to refresh the memory of someone whose former knowledge of calculus has become rusty. Finally, there is an extensive list of books, reports and papers (none of which come from this journal) and an index (where the first two references this reviewer looked for were incorrect, and the third, Euler, was misspelled).

The series of books in which this is number 31 is called 'Advanced textbooks in economics'. It might be a useful text for a course in advanced mathematical economics, but of little help to anyone concerned with helping management make optimal decisions in the real world.

DAVID K. SMITH

Retailing Management
W. STEWART HOWE
Macmillan Education, Basingstoke, 1992. 299 + xviii pp. £12.99
ISBN 0 333 48299 0

This is not a book which will interest most operational researchers. For those working in the UK retail sector, it represents an inferior alternative to the text by McGoldrick[1]. For students of retailing, it may prove to be a useful starter, especially the chapter on 'The Development of Modern Retailing'.

It is divided into two parts — Part 1: 'The Retailing Environment' and Part 2: 'Managing Retail Organisations' — each with five chapters. A chapter on 'The Small Firm in Retailing' appears in Part 1, whereas the chapters on 'Governmental Control in Retailing' and 'Legal Issues in Retailing' appear in Part 2. This seems strange to me and is one example of the lack of a clearly justified structure to the book within an understandable framework of retailing. Whilst individual chapters, particularly those on 'Physical Distribution Management' and 'Government Control in Retailing' are concise and stimulating, the book as a whole lacks cohesion.