Book review "Modelling and Simulations for Tourism and Hospitality: An Introduction"

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Information Technology & Tourism

ISSN 1098-3058

Inf Technol Tourism
DOI 10.1007/s40558-020-00178-y

Springer

Information Technology & Tourism
https://doi.org/10.1007/s40558-020-00178-y

BOOK REVIEW

Book review "Modelling and Simulations for Tourism and Hospitality: An Introduction"

Jacopo A. Baggio, Rodolfo Baggio ISBN-13: 978-1-84541-742-0 (hbk), ISBN-13: 978-1-84541-741-3 (pbk), Channel View Publications, British, 2020, 176 pp., 29.95 Euro

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Received: 28 April 2020 / Revised: 28 April 2020 / Accepted: 4 May 2020

The book is a sound historical and scientific introduction to designing and conducting research studies for tourism and hospitality. Through a self-explanatory structure and a plain language, the authors suggest a rigorous method to address the challenges related to such studies.

Accompanying the reader through an initial analysis of the nature of the tourism phenomenon, on to the definition of relevant concepts and approaches, and then to the description of the variety of available models and software tools, the book makes compelling reading. It is a real page-turner.

As tourism is a multidisciplinary area, experts in different domains are involved in its different facets. The need for diverse competencies on one side, and the availability of innovative conceptual tools and technologies, on the other, makes this sector a challenging one. In this context, the book offers an agile way not only to keep up to date but also to take a step forward in the evolving and intriguing scenarios of modelling and simulation.

Whether you are a scholar, a student, a professional, a decision-maker, a practitioner or a tourism manager, this is a must-have book in your toolbox; it is a book that should be read by everyone involved in research in the field of tourism, but it would also be an excellent choice of textbook in any tourism course.

The authors follow a problem-solving approach and advocate the scientific method, explaining why a complex phenomenon, as tourism is, needs a systemic and holistic view. From Greek philosophers, scientists such as Newton, to the scholars of the last few centuries, the system theory is the most important outcome of a long cultural revolution. However, it has still to be fully understood and implemented: how many of us could explain what a 'complex' system is and why it is different from a 'complicated'

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Published online: 16 May 2020

system, or what an 'adaptive' system is? Indeed, such questions are critical to choosing the most suitable model or mix of models for a research study.

In addition, cognitive biases often drive research studies to using the models we know best, not necessarily the most adequate; it is the hammer vs. nail paradox: "if the only tool you have is a hammer, you treat everything as if it were a nail". The (implicit) book's objective is to force us to overcome that attitude, offering a guided tour through the intriguing landscape of models, from the most traditional ones—conceptual and statistical—to those rooted in artificial intelligence—machine learning with its different implementations—and network analysis.

Modelling is an abstraction process and should be based on goals and principles. Non-linear interactions, explicability, predictability, repeatability, are some of the keywords used to describe the characteristics for the identification and application of modelling and simulation methods. Quantitative and qualitative aspects have to be used properly. Challenges such as big data, and in turn different kinds of data analysis (the book lists 17! "features defining the quality of data", i.e. data characteristics that should be considered in the design of a research study), require new and more sophisticated models and simulation processes. The choice of a modelling technique is therefore a multi-criteria decision-making problem. The book introduces a number of guidelines and criteria to support those decisions. The essential components of each model are described, i.e., assumptions, modelling language, formalization, input and expected output, and conditions to be applied. The application of the models is illustrated in the book with a running example, related to a real project for the city of Cremona, a city of art in the north of Italy. An accurate reference list is also given for each chapter to allow the reader to gain a more in-depth knowledge on a given topic. In this way the trade-off between a comprehensive review of the existing models and a formative goal is effectively solved.

The proposed methods are subsequently illustrated in four significant case studies of varying complexity and with different objectives: to investigate international tourism flows between European countries; to predict cancellations of hotels bookings; to analyse the importance of networking for a hotel; to investigate the relations between tourism development and the environment.

Another useful tool for the reader is the list of the software programs and tools classified according to the modelling methods illustrated in the book: it includes both free and commercial tools. The beginner corner is a point of great practicality, an incentive to start employing models that, despite being potentially unfamiliar, the reader would be curious to learn about and to apply. The last part of the book includes suggestions for further readings.

The book can be read also as a manifesto for studies in tourism. It encourages the need to adopt a critical approach: choosing the most effective model, applying innovative models when necessary, avoiding oversimplification of problems, and lastly not forcing the models to say what they cannot say. Consequently, the book can be used as a reference when we are directly involved in conducting research studies in the field of tourism, but also to correctly interpret results reported in different sources, on- and off-line.