Book Review

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INTRODUCTION

This particular volume ambitiously addresses the application of holistic optimization techniques in the areas of hotel, travel, and tourism across the globe. Holistic optimization, a well-known concept in engineering, science, and technology, attempts to efficiently solve problems by viewing compartmentalized systems as a whole and attending to objectives from a comprehensive versus individual parts approach. The authors have brought together a talented group of scholars to produce a 20-chapter handbook effectively applicable in the classroom and industry. This collection contributes to the limited existing discussions on a topic that will surely promote its high relevance in hospitality and tourism management.

REVIEW

The handbook is visually appealing, well laid out, and functionally organized into seven sections: Foreword, Preface, Acknowledgment, 20 essays, References, About the Contributors, and Index. The sections are well arranged and purposefully address the intended audience. The chapters emphasize the most relevant applications of holistic optimization techniques within the hospitality and tourism industries. From holistic design philosophy to innovative technologies and the application of yield management, this text offers readers comprehensive coverage of the main concepts while spanning interdisciplinary topics. Due to space constraints, this review only highlights some of the 20 notable chapters.

In Chapter 1, Piechotka et al. posit that greater attention must be given to accessibility tourism and highlight UNESCO World Heritage Sites as an example. Tourist destinations, and related products and services, should be accessible to all people regardless of age, physical limitations, or disabilities. Representing an ever increasing and highly important demographic within cultural tourism, it is of great significance to the overall industry that current planning trends be re-examined in an attempt to introduce a holistic design philosophy. The intent is to enhance accessibility for all tourists by implementing design changes with respect to facilities, products, and services.

Utilizing a Bertrand game-based approach, the authors of the second chapter present their strategy on how to maximize profits under certain restrictive situations. Addressing problems in hotel yield management (revenue management), they put forth the application of economic principles to system variables so as to realize maximum revenue generation. This technique combines IT, statistical

application, organization theory, best practices, and business savvy to offer up possible avenues for problem-solving. Watada, Yoshimura, and Waseda provide deeper critical and insightful discussions on this topic in Chapter 2.

António, de Almeida, and Nunes discuss the benefits of predicting booking cancellations relevant to inventory control, revenue loss, and online reputation management. In Chapter 6, the aforementioned authors highlight the use of machine learning concepts and applications as a means to employ modeling processes based on data sets for predicting cancellations with accuracy results greater than 90%. Such predictions could prevent revenue loss by, for example, efficiently forecasting tourist demand. This application is of great significance to the problem-solving and decision-making policies and procedures of hotel managers.

Chapter 9 explores the increasing problem of terrorism and security in hospitality and tourism. Emergencies bring with them confusion and disorder whereby outlined procedures in guide books no longer offer adequate policies. Attacks are no longer limited to modes of transportation such as airlines, and effective problem-solving techniques and preventative measures need to be put in place to minimize the far-reaching results of catastrophic occurrences. With the aforementioned in mind, Korstanje's contribution to this book looks at the strong dependency of societies on mass-media and its coverage of terrorist attacks by exploring the 20-year legacy of three senior lecturers whose work has focused on the growing problem of international terrorism.

The concept of collaboration amongst businesses who share similar interests is certainly not novel. Cooperative networks have existed since the dawn of commerce; however, their value in the tourism industry has only recently been recognized as worth exploring. In Chapter 16, Asero, Patti, and Skonieczny deliberate the benefits of forming strategic partnerships within formal tourism networks. Through the application of Game Theory, the achievement of cooperative optimization of a tourism network is said to occur through the decisional process undertaken by entrepreneurs who share similar business goals and vision. The authors highlight the aforementioned by presenting empirical findings from a case study that ultimately led to an innovation in Italian law. Findings could proof useful in the planning and management of tourist destinations.

Finally, Chapter 20 attempts to use "Relative to an Identified Distribution" (RIDIT) algorithms to analyze real-time empirical data relative to tourists' attitudes, preferences, motivations, and behaviours. The application of RIDIT algorithms to problems within tourism is quite uncommon. The modelling strategies presented by Bhattacharya and Kumar offer direction in undertaking empirical research in analytics processing with the ambitious goal of generating optimized outcomes. The authors should be praised for making an eloquent attempt at cross-disciplinary application.

The hospitality, travel, and tourism industries are being recognized as strong contributors to a country's overall economic health. As such, more and more academics are applying concepts from other disciplines (such as mathematics and engineering) to the study of tourists and their behaviours. As a global phenomenon, tourism is under scrutiny for its effect on the environment, on the population of a given destination, and on the processes undertaken by those who manage within it to develop efficient solutions. Vasant and Kalaivanthan acknowledge these needs and have effectively brought together international academics to expand the discourse on optimizing systems within tourism from a holistic perspective. Although the authors have presented an impressive array of topics, an important matter seems to have been left out. The text does not take into consideration the human component needed in implementing holistic optimization techniques. It would be worthwhile to assess the human capital necessary to implement the recommendations set forth by the contributors. This could potentially offer another area of research for academicians interested in adding to the discussions presented in this handbook.

In sum, the contributing authors, the book editors, the editorial team, and the support staff of IGI Global have completed an exemplary work most certainly worth reading and utilizing in the classroom and in the field. Its contents underline important studies conducted by researchers from

different countries offering diverse perspectives on an emerging topic of interest. The aims of this comprehensive compilation has been to highlighting empirical research on the optimization of the travel and hospitality industry through the use of algorithms and information technology and to then serve as a critical reference source for managers, decision makers, executives, tourists, agents, researchers, economists, and hotel staff members. The contributors have identified that by utilizing new technologies and optimization techniques, it is becoming easier to troubleshoot problems within tourism-related fields. Overall, the editors have certainly met their objectives: to explore the emerging innovative and novel technology on Holistic Optimization Techniques in the Hospitality, Tourism, and Travel Industry. Their handbook contributes to the efforts of closing the knowledge gap relative to applications of optimization techniques in the overarching field of social science.