The Global Smart City
The Global Smart City: Challenges and Opportunities in the Digital Age

BY

FILIPPO MARCHESANI

University G. d’Annunzio, Italy
Contents

About the Author vii
Introduction and Overview ix

Chapter 1 Introducing and Understanding Smart Cities 1

Part One: Internal Implementation of Smart City Ecosystems

Chapter 2 Digital Implementation in the Smart City Ecosystem 15
Chapter 3 Orchestrating the Implementation of the Smart City 31
Chapter 4 Geographic Patterns in Smart City Implementation 55

Part Two: Urban, Economic, and Competitive Outcomes of the Smart City Projects

Chapter 5 Urban Environment in the Smart City 77
Chapter 6 Economic and Business Environment in the Smart City 99
Chapter 7 Urban Attractiveness and the Competitive Edge of the Smart City 117
About the Author

Filippo Marchesani is Researcher at the Department of Management and Business Administration at the University “G. d’Annunzio” Chieti-Pescara. He holds a PhD in Accounting, Management, and Business Economics. He was a visiting researcher at the University of Girona (Spain). His research interests focus on cities competitiveness, smart cities, smart tourism, innovation and entrepreneurship. He sits on the editorial board of Springer Nature Business & Economics Journal and is a peer-reviewer for several international journals. He has recently published these issues in International Marketing Review, Technological Forecasting and Social Change, Cities, Journal of Cleaner Production, Current Issues in Tourism, International Journal of Tourism Cities and has contributed to several books.
Introduction and Overview

In a world shaped by the juxtaposing forces of digital technologies and globalization, there is an urgent need for profound reflection on the intricate interaction between contemporary cities, the urban environment, users, stakeholders, and their transformative impact on society at large. This book aims to present a comprehensive exploration of the current state of cities, focusing on both organizational and strategic perspectives, in order to better understand the complex and still understudied ecosystem of smart cities.

Drawing upon analysis of factual data, empirical evidence from primary and secondary sources, interviews, and compelling case studies, this book delves deeply into the concept of smart cities. It examines their multifaceted role in shaping our lives, critically assessing their benefits and limitations and providing implications and suggestions for various stakeholders, including public managers, policymakers, and citizens.

As smart cities assume an increasingly pivotal role in society, this book contributes to the ongoing discourse by providing novel insights into the trajectories of smart city projects. It investigates the impact of these initiatives within organizations and beyond, while also addressing the managerial challenges and consequences within the urban environment. By presenting a synthesis of theoretical lenses from diverse fields such as urban studies, management, and economics, this book offers a comprehensive understanding of the smart city phenomenon and its far-reaching implications.

This book is structured into two parts, each offering a distinct perspective to contribute to the debate: the organizational aspect in the first part and the strategic aspect in the second. This structure aims to provide a comprehensive and global understanding of the phenomenon of smart cities.

After the introductory chapter, which provides an overview and guidelines on smart cities, the first part of this book, titled “Internal Implementation of Smart City Ecosystems,” delves deep into the internal implementation of smart city projects. Specifically, it examines the digital implementation, internal dimensions, and the geographical and strategic differences that influence the implementation of smart city projects.

In the first part of this book, the second chapter titled “Digital Implementation in the Smart City Ecosystem” provides an overview of the digital implementation in smart city ecosystems. It explores the role of data ecosystems and the Data Value Chain in smart cities, along with the challenges and opportunities they bring. This chapter also highlights the interaction between local and national data
ecosystems and the importance of digitalization in smart city processes and services. Interviews with smart city managers, policymakers, and technicians offer valuable insights into the practical implementation and impact of data management in urban development. The third chapter, “Orchestrating the Implementation of the Smart City,” focuses on the six strategic dimensions of smart city projects: governance, environment, people, living, mobility, and economy. Through in-depth analysis, case studies, and interviews, this chapter aims to provide a comprehensive understanding of these dimensions and their significance in smart city development. It challenges prevailing media portrayals of smart city strategies and explores the internal implementation and objectives of smart cities within each dimension. Chapter 4, “Geographic Patterns in Smart City Implementation,” examines the geographical differences and approaches influencing smart city projects worldwide. It discusses the impact of contextual factors on smart city initiatives and explores the strategic and geographical approaches shaping their implementation. This chapter analyzes citizen-based, technology-based, and decision-making-based development in smart cities and examines the influences of different regions on smart city projects, including Europe, North America, Latin America, and East and South Asia.

After analyzing the internal structure, organizational aspects, role and management of technology, as well as the geographical and governance approaches to smart city projects, the second part of this book shifts focus to the urban, economic, and competitive outcomes of these projects. It discusses the implications of smart projects and their potential impact on various outcomes, such as internal development, economic environment, and city attractiveness. Thus, moving to the second part of this book, Chapter 5, “Urban Environment in the Smart City,” delves into the urban outcomes of smart city projects. It focuses on the digital and environmental aspects of smart cities, discussing the advancements in digital systems, environmental benefits, and improved quality of life for citizens. This chapter incorporates interviews, case studies, and international research to offer a comprehensive understanding of the impact of smart cities on the urban ecosystem. The sixth chapter explores the economic and business environment of smart city projects. It highlights the potential of smart cities to foster innovation, entrepreneurship, and economic growth. By analyzing the interplay between smart cities and the entrepreneurial ecosystem, this chapter examines the economic outcomes of smart cities, including business creation, startups, and the overall economic environment. It provides insights into the relationship between smart cities and economic prosperity. Chapter 7 focuses on the competitive outcomes of smart cities. It explores how smart cities can gain a competitive edge by offering advanced and innovative environments that attract citizens, businesses, and tourists. This chapter discusses marketing innovation, internationalization, and the competitive landscape of smart cities. It emphasizes the importance of city attractiveness in a globalized world and presents challenges and future prospects for smart city development.

Concluding the book, Chapter 8 offers practical guidelines for navigating the landscape of smart cities. It synthesizes the key points covered throughout this book and addresses the challenges and opportunities of smart city initiatives. This
chapter emphasizes the need for ongoing adaptation and innovation in the rapidly evolving digital age.

In conclusion, “The Global Smart City: Challenges and Opportunities in the Digital Age” aims to provide a comprehensive understanding of the smart city phenomenon and its implications. It offers valuable insights and recommendations for policymakers, public managers, and citizens. By incorporating interdisciplinary perspectives and empirical evidence, this book makes a significant contribution to the ongoing discourse on smart cities. It encourages readers to embrace the challenges and seize the opportunities presented by smart city initiatives to create sustainable, efficient, and equitable urban environments.