Preface

The constantly changing landscape of Small and Medium Enterprises makes it challenging for experts and practitioners to stay apprized of the field’s most up-to-date research. That is why Business Science Reference is pleased to offer this four-volume reference collection that will empower students, researchers, and academicians with a strong understanding of critical issues within Small and Medium Enterprises by providing both broad and detailed perspectives on cutting-edge theories and developments in the field. This collection is designed to act as a single reference source on conceptual, methodological, technical, and managerial issues, as well as provide insight into emerging trends and future opportunities within the discipline.

*Small and Medium Enterprises: Concepts, Methodologies, Tools, and Applications* is organized into eight distinct sections that provide comprehensive coverage of important topics. The sections are (1) Fundamental Concepts and Theories, (2) Development and Design Methodologies, (3) Tools and Technologies, (4) Utilization and Application, (5) Organizational and Social Implications, (6) Managerial Impact, (7) Critical Issues, and (8) Emerging Trends. The following paragraphs provide a summary of what readers may expect from this invaluable reference tool.

Section 1, “Fundamental Concepts and Theories”, serves as a foundation for this extensive reference tool by addressing crucial theories essential to the understanding of Small and Medium Enterprises. Introducing the book is *Theoretical Foundations for Information Systems Success in Small- and Medium-Sized Enterprises* by Jan Devos, Hendrik Van Landeghem, and Dirk Deschoolmeester, a great foundation laying the groundwork for the basic concepts and theories that will be discussed throughout the rest of the book. Another chapter of note in Section 1 is titled *Creativity in Action* by David Calvey, which discusses the concept of communities of practice in creative multi-media SMEs. Section one concludes, and leads into the following portion of the book, with a nice segue chapter, *An Exploratory Investigation of the Barriers to the Adoption of Open Source ERP by Belgian SMEs* by Kris Ven and Dieter Van Nuffel. Where section one leaves off with fundamental concepts, section two discusses the models and methodologies in place within Small and Medium Enterprises.

Section 2, “Development and Design Methodologies”, presents in-depth coverage of the conceptual design and architecture of Small and Medium Enterprises, focusing on aspects including open innovation, research models, e-collaboration, knowledge management, risk assessment, and many more topics. Opening the section is *Theoretical Model for a Local Economy Open Innovation Program* by Amiram Porath. This section is vital for developers and practitioners who want to adopt innovative practices and applications in SMEs. Through case studies, this section lays an excellent groundwork for later sections that will explore present and future applications for Small and Medium Enterprises, including, of note, *Championing SME eCollaboration* and *Structuring Knowledge for Enterprise Resource Planning*. 
Implementation through an Ontology. The section concludes with an excellent work by Antonio Lerro Giovanni Schiuma, Robert Huggins, Daniel Prokop, and Maria Weir, titled *Assessing Knowledge Assets in Renewable Energy SMEs in Scotland.*

Section 3, “Tools and Technologies”, presents extensive coverage of the various instruments and technical innovations used in the implementation of Small and Medium Enterprises. This section begins where section two left off, describing more concrete tools involved in the modeling, planning, and application of Small and Medium Enterprises. One of the first chapters, *A Benchmarking Study on Organizational Creativity Practices in High Technology Industries* by Fernando Sousa and Ileana Monteiro, lays a framework for the types of research that can be found in this section, a perfect resource for practitioners looking for information on the technologies used in modern business enterprises. Section three is full of excellent chapters like this one, including such titles as *Perceived Benefits and Barriers of ICT Adoption among SMEs; Promoting Competitive Advantage in Micro-Enterprises through Information Technology Interventions,* and *Media Resource Adaptation for Multimedia Services and Streaming Media for Mobile Telephones,* to name a few. Where section three describes specific tools and technologies at the disposal of practitioners, section four describes successes, failures, best practices, and different applications of the tools and frameworks discussed in previous sections.

Section 4, “Utilization and Application”, describes how the broad range of efforts in Small and Medium Enterprises has been utilized, and offers insight on, and important lessons for, their applications and impact. Section four includes the widest range of topics because it describes case studies, research, methodologies, frameworks, architectures, theory, analysis, and guides for implementation. Topics range from ICT adoption and green technologies to open innovation and education. The first chapter in the section is titled *SME Adoption and Use of ICT for Networked Trading Purposes,* which was written by Fintan Clear, Adrian Woods, and Keith Dickson. The breadth of topics covered in the chapter is also reflected in the diversity of its authors, writing from countries all over the globe, including Oman, the United Kingdom, Nigeria, Canada, China, Israel, Egypt, and more. Section four concludes with an excellent case study on the green economy: *Warehouse Financing Risk Analysis and Measurement with Case Study in Carbon Trading* by Ying Yin and Zong Wei Luo.

Section 5, “Organizational and Social Implications”, includes chapters discussing the ethical and real-world impact of Small and Medium Enterprises. The section opens with *Green Supply Chain Management* by Ki-Hoon Lee. Where section four focused on the broad, multitudinous applications of Small and Medium Enterprises technology, section five focuses exclusively on how these technologies affect human lives, either through the way they interact with each other or through how they affect behavioral/ workplace situations. Other interesting chapters of note in section five include *eBusiness among Ethnic Minority Businesses* by Martin Beckinsale and *SMEs E-Business Security Issues* by José Gaivéo. Section five concludes with a fascinating study of the growing interaction between consumers and companies in Small and Medium Enterprises, in *Optimising Customers as Knowledge Resources and Recipients.*

Section 6, “Managerial Impact”, presents focused coverage of Small and Medium Enterprises as it relates to effective uses of collaborative technologies, human resources management, and social networks. This section serves as a vital resource for managers who want to make the best use of all the resources, both human and material, available to them. The section begins with *The Use of Collaborative Technologies within SMEs in Construction* by Vian Ahmed and Aisha Abuelmaatti, a great look into how small companies can utilize human capital to further their competitive advantage. The ten chapters in this section offer unmistakable value to managers looking to implement new strategies that work at wider bureaucratic levels. The section concludes with *Strategies for Sustainable Succession Planning in Family*
Business by Lucy Tan-Artichat and Joseph F. Aiyeku. Where section six leaves off, section seven picks up with a focus on some of the more content-theoretical material of this compendium.

Section 7, “Critical Issues”, presents coverage of academic and research perspectives on Small and Medium Enterprises tools and applications. The section begins with Open Innovation, by Hakikur Rahman. Other issues covered in detail in section seven include business agility, collaborative networks, corporate social responsibility, new business models, and much more. The section concludes with How do Professionals’ Attitudes Differ between what Game-Based Learning could Ideally Achieve and what is Usually Achieved by Wee Hoe Tan, Sean Neill, and Sue Jonston-Wilder, a great transitional chapter between sections seven and eight because it examines methodological and technological developments in the education of business professionals. This chapter casts a theoretical look into future and potential technologies, a topic covered in more detail in the final section.

Section 8, “Emerging Trends”, highlights areas for future research within the field of Small and Medium Enterprises, opening with Innovating Elite Undergraduate Education through Quality Continuous Improvement by Kam Hou Vat. Section eight contains chapters that look at what might happen in the coming years to extend the already staggering number of applications for Small and Medium Enterprises. Chapters of note include Trends of Open Innovation in Developing Nations and Building Innovative Business Ideas in Small Business Enterprises. The final chapter of the book, The Redefined Role of Consumer as a Prosumer by Rauno Rusko, explores an emerging trend within Small and Medium Enterprises, namely the use of stakeholder opinions in research and development practices.

As a comprehensive collection of research on the latest findings related to using technology to provide various services, Small and Medium Enterprises: Concepts, Methodologies, Tools, and Applications provides researchers, administrators, and all audiences with a complete understanding of the development of applications and concepts in Small and Medium Enterprises. Although the primary organization of the contents in this multi-volume work is based on its eight sections, offering a progression of coverage on the important concepts, methodologies, technologies, applications, social issues, and emerging trends, the reader can also identify specific content by utilizing the extensive indexing system listed at the end of each volume. Given the vast number of issues concerning usage, failure, success, policies, strategies, and applications of Small and Medium Enterprises in countries around the world, Small and Medium Enterprises: Concepts, Methodologies, Tools, and Applications addresses the demand for a resource that encompasses the most pertinent research in technologies being employed to globally bolster the knowledge and applications of Small and Medium Enterprises.