

Preface

In the early 1990s, e-commerce ushered in what is now called “the digital economy.” It revolutionized the process of buying, selling, and exchanging products and services, and spawned a host of business and technological innovations. As globalization and competition posed new opportunities and challenges, firms faced increased pressures from stakeholders to create e-business values. They have been attempting to find which e-business models and applications will contribute effectively to their sustainability, growth, and innovation. Innovations in technology in the e-commerce area have also constantly encouraged firms to improve existing business processes and to come up with new business models and applications.

Recently, e-commerce has been going through a major transformation to take advantage of the new e-commerce technologies, standards, and business models emerging in different industries. E-commerce brought about a paradigm shift caused by “disruptive” technology that is radically changing the traditional way of doing business. The paradigm shift was unprecedented in terms of the complexity and magnitude, and pressured firms to be more innovative and proactive to business problems than ever before. The Internet is changing the telecommunication paradigm through the convergence with telecommunications. Traditional circuit-switch telecommunications technology gives way to IP-based packet switch telecommunications for broadband network services. With the phenomenal advancements in wireless communication technologies, mobile devices took advantage of IP protocol and entered into the mainstream e-commerce arena. IPv6 enables billions of devices on the IoT to be assigned to unique identifiers. Social media is changing the trends of the web technology development and web design.

As technological innovations drive organizational transformations, researchers need to understand the implications of these technological and organizational changes. To remain competitive, managers need to keep abreast with the new paradigms such as social media and the Internet of Things (IoT). Although a large volume of literature is already available on e-commerce, many new ideas and applications are constantly emerging and provide potential opportunities and challenges for further research. In light of this phenomenon, it is high time to develop a comprehensive reference source which provides the most up-to-date research findings and future directions. *The Encyclopedia of E-Commerce Development, Implementation, and Management* provides a repository for academicians, researchers, and industry practitioners to share and exchange their research ideas, theories, and practical experiences, discuss challenges and opportunities, and present tools and techniques in all aspects of e-commerce development and management in the digital economy.

This book is divided into 13 sections with a total of 170 articles: Section 1, “E-Commerce Business Models,” consists of 8 chapters and discusses various e-commerce business models and their value creating opportunities; Section 2, “E-Commerce Management,” consists of 21 chapters and discusses regulations, cases, management methods, customer management, and management practices for e-commerce;

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Section 3, “E-Commerce Planning and Evaluation,” consists of 9 chapters and addresses planning and evaluation methodologies for e-commerce; Section 4, “E-Commerce Strategies,” consists of 10 chapters and addresses competition, strategies, and innovation in e-commerce; Section 5, “E-Commerce System Development,” consists of 14 chapters and presents development platforms, design principles, development frameworks, service-oriented architecture, and e-commerce applications development; Section 6, “E-Marketplaces,” consists of 8 chapters and discusses various types of e-marketplaces and related technologies; Section 7, “Emerging E-Commerce Trends,” consists of 12 chapters and presents bitcoin, search engine, recommendation systems, assistive technologies, Web 3.0, and future trends; Section 8, “Issues, Challenges, and Opportunities in E-Commerce Development and Management,” consists of 9 chapters and addresses technological and regulatory challenges, the Internet of things (IoT), and e-commerce challenges and opportunities in China and Egypt; Section 9, “Mobile Commerce and Mobile Services,” consists of 17 chapters and addresses mobile consumer behavior, mobile marketing, mobile services applications, and mobile services industry; Section 10, “Online Consumer Behavior,” consists of 18 chapters and presents e-commerce consumer acceptance models, trust, and psychological perspective on online consumer behavior; Section 11, “RFID Technologies and E-Commerce Process Improvement,” consists of 9 chapters and discusses various RFID technologies and issues in business process integration; Section 12, “Social Media,” consists of 24 chapters and discusses various types of social media and related behavioral and managerial issues; Section 13, “Theoretical Foundations of E-Commerce,” consists of 11 chapters and discusses various e-commerce theories and the impacts of e-commerce to the economy and society.

As leading experts in the e-commerce area, the contributors did an excellent job of providing our readers with extensive coverage of the most important research topics, concepts, business practices, technologies, and trends. The target audience includes researchers, instructors, e-commerce managers, business analysts, and undergraduate/graduate students in various e-commerce programs. I expect this encyclopedia to shed new insights for researchers, educators, and practitioners to better understand the important issues and future trends of e-commerce research and technologies.

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August 2015