

Preface

The unprecedented gains in information systems/technology capabilities, the rapid globalization of a range of industries and the ever-increasing need for timely, relevant strategic information in complex, hyper-competitive environments have set the stage for new challenges concerning research in strategic management and information systems alike. We believe this confluence of events represents a unique opportunity for cross-fertilization of information systems and strategic management research, broadly defined, as well as the advancement of each field. The state-of-the-art application of advances in information systems/technology and communication to a variety of strategic management issues stands to make valuable contributions both to research and practice.

The domain of strategic management broadly encompasses issues facing “general managers—those who manage multi-business firms or multi-functional business units. Major topics include: strategy formulation and implementation; strategic planning and decision processes; strategic control and reward systems; resource allocation; diversification and portfolio strategies; competitive strategy; selection and behavior of general managers; and the composition and processes of top management teams” (Academy of Management Business Policy/Strategy division domain statement). Advances in information systems research can inform scholars and practitioners regarding organizational implications of information technology; organizational transformations resulting from the astute application of information technology; the proper alignment of information systems and organizational strategy at the functional, business and corporate levels; and future strategic alternatives aided by systems advances in general.

The purpose of this book is to bring together an array of high-quality expository discussions from experts in the fields of information systems and strategic management to identify, define and explore topics relevant to both fields and, in particular, to solicit contributions from the intersection of these two fields. Our collection of chapters is intended to harness the most current research expertise in information systems/technology and strategic management in order to extend scholarship and benefit managers in increasingly turbulent and complex industry environments.

We believe our work complements other works in IT and management by filling a gap heretofore not specifically addressed. Important research has been conducted concerning the foundations of corporate success with regard to superior operations and connections with information technology and networks of suppliers and collaborators,

but the emphasis here is on production/operation efficiency and supply chain management concerns. Other works have dealt with the latest thinking in information management and issues associated with the management of information systems, where the focus is primarily on MBA, master's-level students and senior undergraduate students taking courses in information management. Other research has offered expert guidance, real-world advice and practical methodology managers can use to ensure that their IT dollars are wisely invested, including methods to help managers make the right IT decisions and optimize asset management and minimize ongoing total cost of ownership. Finally, other contributions have addressed the evolution of infrastructure designed to handle a variety of goals, projects and deadlines. Proper infrastructure planning includes infrastructure planners directly involved in strategic application decisions upfront.

The aforementioned are representative of current works dealing with information systems/technology and management, but they either tend to be focused on operational issues (e.g., supply chain management) or the internal sales effort related to IT proposals and implementation in organizations. To our knowledge, ours is among the first books to explore the most current research at the intersection of strategy and information systems/technology applied to strategic management and aimed at academics as well as practicing managers. It incorporates cutting-edge research aimed at applying information systems/technology advancements to strategic decision-making in general and includes a range of strategic management topics. In short, this point in history represents a unique opportunity to capture myriad cross-benefits emanating from the intersection of these fields.

This book should be useful as a core text in specialized courses, a supplement to core courses and a resource guide for both strategic management and information systems/technology researchers. Although the topics are grounded on sound theoretical footing, the treatment of the topics is also accessible to practicing managers, and we expect organizations to profit from the practical application of these findings. Parenthetically, at our own institution, we have recently combined the Computer Information Systems and Analysis department with the Management department, resulting in the newly formed Department of Management and Information Systems. We anticipate that MBA programs may continue to evolve into "high-tech" or "management of technology" MBAs, in keeping with current trends. We believe our book represents contributions at the forefront of research that realizes synergies among technology and organizational issues, thereby benefiting research, practice and forward-thinking education at the graduate level.

The book is organized into four sections. The first section, consisting of four chapters, is titled *Perspectives on IT-Enabled Strategic Management*. Primary aims in this section are broad coverage of strategic management and information technology/systems topics, implications for the organization as a whole and future research agendas.

In Chapter I, Zaiyong Tang and Bruce Walters trace the parallel development and growing convergence of strategic management and information technology research. The case is put forth that, although each field has clearly distinct aims, they also increasingly complement each other on a variety of fronts, including operational processes, strategic decision-making and strategy implementation issues.

Chapter II, by Paul L. Drnevich, Jungpil Hahn and Mark Shanley, argues that MIS research can benefit by incorporating a comprehensive understanding of core theoretical perspectives in strategic management. A key aim is to offer a framework by which to evaluate the impact on firm performance of future MIS research agendas.

Chapter III, by Brian H. Cameron, offers a view of IT strategic alignment from the perspective of financial portfolio management. Projects are seen as being managed together as a portfolio that meets stated corporate goals and objectives.

In Chapter IV, Miguel Pérez-Valls, José Ortega-Egea and José Antonio Plaza Úbeda argue that IT innovations can be regarded as both cause and consequence of the emergence of more flexible and virtual organizational forms. As industry environments become more dynamic, flexible organizational structures can be seen as a way to adapt to changes as well as proactively influence industry conditions.

The second section, consisting of four chapters, is titled *Processes and Capabilities*. Contributions highlight various applications and processes facilitated by the judicious deployment of IT-enabled systems in organizations. The authors offer fresh treatments of organizational capabilities, knowledge management, the learning organization and IT integration.

Chapter V, by Paul L. Drnevich, examines new organizational capabilities arising from the rapid evolution of IT advances, offering a view of firm activities as knowledge inflow, intraflow and outflow processes. This new environment presents challenges to existing views of strategic management theory, but also presents unique opportunities for the enhancement of competitive advantages.

In Chapter VI, Dev K. Dutta discusses the Software Engineering Institute's Capability Maturity Model of software improvement in terms of a firm's ability to transform itself into a learning organization. A method of assessment is presented by which an organization can consider the degree to which it is achieving the appropriate learning goals.

In Chapter VII, Les Singletary and Minh Q. Huynh describe the evolution of IT integration strategies and examine ERP as a popular IT business strategy. The major theme is IT integration, and the authors examine the question, "Is IT integration desirable?"

Chapter VIII, by Sreedhar Madhavaram and Radha Appan, argues that marketing strategy is responsible for ensuring that all aspects of a firm's marketing activities are focused on delivering superior value to customers. The authors explore various information technology-enabled capabilities that influence the firm's marketing strategy, and they call for strategically oriented research for exploring, conceptualizing, developing and measuring information technology-enabled capabilities that influence marketing strategy.

The third section, consisting of three chapters, is titled *Technology and Tools*. These chapters concern technological and methodological considerations in decision-making. Intelligent mobile agent-based systems, business-to-business (B2B) applications and technological enhancement of environmental scanning address decision quality and efficiency of information management.

In Chapter IX, Tong-Seng Quah and Chye-Huang Leow describe a specific application of an intelligent mobile agent-based system that links hotels and restaurants to provide a convenient way of searching for choice restaurants. Benefits include less information overload for users and increased revenue for businesses.

Chapter X, by Yuan-Yuan Jiao, Jun Du and Jianxin (Roger) Jiao, proposes a directory service-enabled infrastructure model for B2B applications, called the IAAIBB model, for centralizing the identification, authentication and authorization infrastructures. The authors illustrate how this model enables a sound trust relationship for B2B applications, and provide an evaluation of the model's advantages.

In Chapter XI, Sören W. Scholz and Ralf Wagner discuss how environmental scanning impacts managerial decisions by linking the business environment with internal organizational capabilities. Based on the Information Foraging Theory, the authors propose an innovative approach to assessing the information gain offered by digitally available sources.

Section IV, *Inter-Organizational and Global Implications*, deals with inter-organizational relationships enabled by IT. Topics include IT outsourcing decisions, organizational effectiveness of multiple business partners and IT-enhanced economic growth and development.

Chapter XII, by Luke Ho and Anthony S. Atkins, provides insight into IT outsourcing, arguing that outsourcing decisions tend to focus on short-term benefits and often lack strategic direction. A framework is presented wherein such decisions may be evaluated in light of environmental turbulence.

In Chapter XIII, Jari Salo presents a longitudinal case study focusing on changes brought about by technology integration in the context of the steel industry. A key conclusion is that information technology integration within a business relationship is a complex process that depends on characteristics both of the adopted technology and the relationship.

Finally, in Chapter XIV, Elias G. Carayannis and Christopher Ziemnowicz present a global perspective of how information and communication technology (ICT) can enable economic growth and convergence. The authors use examples from the European Union's Central and Southeastern European members, and argue that ICT provides opportunities for governments to transform themselves as well as the way they provide products and services to individuals.

In summary, this book contains outstanding contributions from leading thinkers exploring the crossroads of information technology/systems and strategic management. There is substantial variety in terms of technical applications, organization-wide ramifications and implications for strategic decision-making. Examples include specific market enhancements, information management for decision-making, inter-organizational efficiencies, the importance of maintaining crucial relationships and broader societal and global ramifications. We believe this fills an important void heretofore not adequately addressed. Although we recognize recent work focused on IT- and strategy-related topics, this book should play a part in encouraging continued deliberate cross-fertilization in these critical research areas at a very strategic point in history. As previously mentioned, although the parallel development of these fields continues, globalization and technological advances have set the stage for convergence of these fields in a number of arenas. We hope you find the subsequent chapters stimulating, as they incorporate cutting-edge research aimed at applying information technology and strategic management concepts to a wide range of topics. We trust that your future research and professional activities will be enhanced by these efforts.