# Global Perspectives on Small and Medium Enterprises and Strategic Information Systems: International Approaches

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Section 1
Practical Information System Challenges
Chapter 1
Connecting Small and Medium Enterprises to the New Consumer:  The Web 2.0 as Marketing Tool
Efthymios Constantinides, University of Twente, The Netherlands
Chapter One presents the nature, effects, and position of social media or Web 2.0. This chapter identifies the main approaches corporations follow in engaging Web 2.0 applications in order to support, complement, or improve their traditional and online marketing activities. These approaches aim at using the social Internet as a source of marketing intelligence and for communicating with customers. The authors propose a classification of the main social media applications and identify the options for SMEs willing to utilize Web 2.0 technologies.
Chapter 2
Leveraging University Research to Assist SMEs in Legacy Industrial Era Regions:
The Case of I-99 Corridor
Arvind Karunakaran,The Pennsylvania State University, USA
Sandeep Purao, The Pennsylvania State University, USA
Brian Cameron, The Pennsylvania State University, USA

Chapter Two highlights the challenges faced by SMEs in legacy industrial era regions by focusing on the specific case of the I-99 corridor in the state of Pennsylvania. It discusses a structured approach toward enabling the SMEs in this region to access extended and powerful knowledge networks through a joint effort working toward regional economic development. The chapter describes the LAIR (Leveraging Advanced IT Research) project, which is aimed at understanding the risks that SMEs in the I-99 corridor are likely to face as they grow, with a specific focus on risks associated with upgrading, implementing, and integrating their information systems.

Chapter	3
IT and th	_

Chapter Three uses the framework provided by the metaphor of the third space as proposed by Bhabha (1994 and 1996). It elaborates on the diffusion of Broadway production business practices to small and medium-sized nonprofit theaters. The authors discover that both groups possess unique cultural competencies that open the door to using Web 2.0 technologies for staging and promoting productions and building relationships with theater patrons. They also discuss other management issues where expertise can be mutually exchanged.

### Chapter 4

Chapter Four presents the importance of ERP system selection criteria among SMEs in Slovenia. The investigated criteria were grouped into ERP benefits criteria, system quality criteria, vendor-related criteria, and ERP package criteria. System reliability, system functionality, vendor support, business process improvement, and improved service levels were perceived as the important ERP system selection criteria for small and medium-sized companies in Slovenia.

### Chapter 5

Chapter Five advises SMEs to create legitimacy by mimicking the cues that signal credibility to potential stakeholders interacting with the firm. The authors examine the role of information and communications technology (ICT) in legitimacy-building from the perspectives of SME founders and potential customers.

# Section 2 Innovation and Information Technology Assimilation

### Chapter 6

Chapter Six examines the differences in electronic commerce (EC) implementation of SMEs in Australia and Singapore. The results show that respondents' perceptions of EC are predominantly positive. The analysis of Australian firms shows that five factors—observability, communication channel, customer pressure, supplier pressure, and perceived governmental support—make a significant contribution to the implementation of EC. In contrast, for firms in Singapore only three factors—firm size, perceived readiness, and observability—have significant impact. The author provides useful insights to adopters of EC initiatives in both countries.

### Chapter 7

Chapter Seven studies the factors affecting adoption of electronic commerce in small and medium enterprises in Australia. The author uses the Tornatsky and Fleischer (1990) model to investigate the impacts of environmental, organizational, and technological factors, and finds that the external environment has an influence mainly through customers' requirements and availability of IT services. The results of this study are contrary to other studies, which found that government and public administration play a significant role.

### **Chapter 8**

Chapter Eight examines the barriers to e-commerce perceived by SME owners and managers in the developing country of Indonesia. It then compares these perceived barriers with those in two developed economies, Sweden and Australia. The study highlights the differences in barriers to e-commerce adoption among the three countries.

### Chapter 9

Chapter Nine investigates the impact of organizational slack in US small and medium-sized enterprises (SMEs) on the adoption of information technology (IT) innovations. The authors find that the slack-innovation relationship, previously described for large firms, does not hold for SMEs. Their results show that potential slack is a strong predictor of technology adoption, whereas available slack is not a significant factor in SME innovation adoption. The authors argue that, in some cases, innovation adoption may represent a form of "bricolage" by resource-constrained SMEs.

# Section 3 Strategy and Information Systems

Chapter 10
The Dual Lens Method: A Practical Approach to Information Systems Strategy in SMEs
Phyl Willson, University of Tasmania, Australia
Judy Young, University of Tasmania, Australia
Kristy de Salas, University of Tasmania, Australia
Chapter Ten presents a method of IS strategy formulation in SMEs. The method draws on the work of Levy and Powell (1999, 2000). A case study describes their experience with this method. The method is comprised of two complementary analyses: an externally focused strategic analysis and an internally focused business process analysis. The authors emphasize the importance of relevance and practicality in selecting the method in practice.
Chapter 11
The Alignment of Business Strategy with Agile Software Development within SMEs
Chapter Eleven studies the challenge of aligning business strategy and information technology (IT) strategy. The authors examine the adoption of agile methods by SMEs in developing software products and suggest that agile methods may facilitate the alignment of business and IT strategy. Models of strategical alignment developed for large enterprises are also validated for SMEs.
Chapter 12
Supporting SMEs Towards E-Business Success: Exploring the Importance of Training,  Competence and Stimulation
Chapter Twelve examines the relationship between training and performance in SMEs and discusse practical implications. They find a positive relationship between training, competence, and performance The authors show that training explains variances in e-business competences and performance in term of efficiency, complementarities, lock-in, and novelty. The study has practical implications for public policy makers, training suppliers, and SME managers.
Chapter 13
Deploying the Internet for Leveraging Strategic Assets

Chapter Thirteen investigates how a firm can use the Internet to leverage its strategic assets. They propose a theoretical framework with variables such as business resources, dynamic capabilities, and IT assets, and suggest that firm managers create competitive advantage by identifying strategic assets that complement the Internet. They also warn against the threat of overinvestment in IT assets at SMEs.

### Chapter 14

Business Process Digitalization and New Product Development: An Empirical Study	
of Small and Medium-Sized Manufacturers	. 290
Jun Li, University of New Hampshire, USA	
Michael Merenda, University of New Hampshire, USA	
A.R. (Venky) Venkatachalam, University of New Hampshire, USA	

Chapter Fourteen examines the relationship between the extensiveness of business process digitalization (BPD) and new product development (NPD). The authors find that NPD is positively related to the extensive use of BPD, and the relationship between NPD and the extensiveness of BPD is stronger in more mature firms than in younger firms. They conclude that SME innovation strategies are positively associated with the strategic use of BPD and span spatial, temporal, organizational, and industry boundaries, thus aiding SME global competitiveness.

### Chapter 15

Information Technology Interventions for Growth and Competitiveness
in Micro-Enterprises
Sajda Qureshi, University of Nebraska at Omaha, USA
Mehruz Kamal, University of Nebraska at Omaha, USA
Peter Wolcott, University of Nebraska at Omaha, USA

Chapter Fifteen studies the challenges faced by micro-enterprises in implementing ICT technology. They find that very few micro-enterprise entrepreneurs possess the technical skills necessary to achieve the benefits that streamline their business operations and help them compete and expand into new markets. The authors employ a focus-dominance model to investigate trends in incorporating and adopting ICTs. They demonstrate how IS combined with context-sensitive IT assistance increases awareness of information systems and predicts future usage of IT.

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