

Preface

The influence of information technology can be felt around the world. From Ireland to Australia, governments, businesses and individuals are using technology to improve their lives. However, the use and development of technology is largely influenced by national and organizational culture, and, as businesses are becoming more global in nature, it is essential for academics, business leaders and technology researchers to understand the nature of information technology use and development in specific countries and in a general global sense. This book provides the most current research on global information technology management and will be beneficial to all those involved in the research or practice of information technology management across the globe. The chapters provide theoretical discussions of research in global information management and the field of human resource management on a global scale. Furthermore, the chapters provide practical examples of successful information technology management and outsourcing in the global marketplace.

Chapter 1 entitled, “The Relationship Between User Participation and the Management of Change Surrounding the Development of Information Systems: A European Perspective” by Tom Butler and Brian Fitzgerald of the University College Cork (Ireland) addresses the deficiency of process-based approaches to the study of user participation in information systems development and its impact on matters of organizational change. The chapter presents the results of a process-based study of these issues and then proposes a theoretical model which captures the institutional and development-related contexts that shape and influence the processes of user participation.

Chapter 2 entitled, “Global Information Systems and Human Resource Management: A Research Agenda” by Fred Niederman of the University of Baltimore (USA) explores five areas in which information technology and human computer designers or users interact within the context of global organizations. The five areas explored are: using information technology to support human resources strategy; using information technology to support the generation and distribution of organizational learning; using human resources management techniques and programs to support the work of IS professionals; using human resource management

techniques and programs to support the work of global end-users; and national and regional policies to support technical and human resource infrastructures.

Chapter 3 entitled, “Applying Erlang Distribution for Software Size Estimation” by Derek Cheung and Ho-Leung Tsoi of the City University of Hong Kong (Hong Kong) discusses the weaknesses of the Program Evaluation and Review Techniques (PERT) model and proposes applying Erlang distribution to overcome the weaknesses. The chapter includes a practical description and example to illustrate the effectiveness of the alternative model presented.

Chapter 4 entitled, “Trajectories and Strategies in Global Software Outsourcing Relationships” by Richard Heeks and Brian Nicholson of the University of Manchester, S. Krishna of IIM-Bangalore and Sundeep Sahay of the University of Oslo investigates the means by which software clients and developers can achieve the benefits that higher value global software outsourcing offers. The chapter reports a longitudinal case study research with eight global software outsourcing relationships where the developer-half was based in India.

Chapter 5 entitled, “Emerging Research Themes in Global Information Management” by R. Brent Gallupe of Queen’s University (Canada) and Felix Tan of the University of Auckland (New Zealand) reports one aspect of a wider study in global information management—emerging global information management research themes. The purpose of this chapter is to identify themes distinct to GIM research that are emerging from the literature with the aim of highlighting the potential areas of future research.

Chapter 6 entitled, “Undergraduate Global IT Education – An Experiential Approach Using the Concept of Fit” by Joan Mann of Old Dominion University (USA) demonstrates how to formulate a global information systems course for undergraduates that will be appropriate to the way undergraduates learn, include the skills they need at this stage in their career and create an affective change in their perspective. The chapter illustrates the importance of alignment between global strategies, organizational structures, the configuration of IS departmental areas, organizational information infrastructures and national/organizational culture.

Chapter 7 entitled, “European Electronic Service Infrastructure Building—Drifting Into the Future” by Åke Grönlund of Umeå University (Sweden) reports on a 3-year study of 9 cities in 8 European countries in developing a service infrastructure including organizational solutions for logistics and client-organization interactions. During the course of the study, the authors discovered twelve distinct crisis situations where goals environment and actors changed, and the process was found in a state of improvisation. The chapter discusses the keys to successful implementation and utilization of service infrastructures.

Chapter 8 entitled, “Comparative Study of the Usefulness of Online Technologies in a Global Virtual Business Project Team Environment” by Simpson

Poon and Shri Rai of Murdoch University (Australia) discusses online technology as a medium of educational service delivery. The chapter examines a case study where online technology has been used to coordinate virtual project teams around the world. The case study also shows that synchronous communications is not necessarily a better means to coordinate than its asynchronous counterpart.

Chapter 9 entitled, “Big-Bang ERP Implementation at a Global Company” by Nava Pliskin and Marta Zarotski of Ben-Gurion University of the Negev (Israel) describes the case study of Dead Sea Works, an international multi-firm producer of Potash and other chemicals. The case study describes the purchase and implementation of a big-bang ERP implementation of SAP R/3 and the organizations attempt to minimize risk through strategic purchasing and a steering committee. The R/3 system was implemented on time and on budget. The case examines the keys to successful implementation.

Chapter 10 entitled, “A Three-Tiered Approach to Global E-Commerce: Experiences of Nu Skin International” by David Paper of Utah State University and Ken Tingey of Opennet Corporation (USA) discusses a case study to research the strategic issues involved in Internet-based globalization. The chapter explores how the Internet and its related technologies can serve to help organizations better deal with the challenges of conducting global business, and identifies a set of heuristic “rules of thumb” that might be used to support Internet-based globalization efforts.

Chapter 11 entitled, “Growth and Consolidation in the Spanish-Speaking E-Commerce Market” by Roberto Vinaja of the University of Texas-Pan American (USA) analyzes the major challenges in the widespread adoption of electronic commerce in the Spanish-speaking population. The case study provides a general overview of related issues in global e-commerce and includes a description of the strategies followed by companies entering the Latin American market in order to illustrate some of the major cross-border issues.

Chapter 12 entitled, “ICT Diffusion and Strategic Role within Italian SMEs” by Giacomo Buonanno, Stefano Gramignoli, Aurelio Ravarini and Marco Tagliavini of the University of Cattaneo, Castellanza (Italy) and Donatella Sciuto of the Politecnico di Milano, Castellanza (Italy) focuses on the specific use of information and communication technologies (ICT) in small to medium sized enterprises (SME). The chapter discusses the current state of ICT employed within Italian SMEs. It further provides the results of a study of the relationship between ICT and SME strategy.

Chapter 13 entitled, “Critical Strategies for Information Systems Development Projects: Perceptions of Developers in Korea” by Chung Kim, Dan Peterson, Jerry Chin and Tonya Barrier of Southwest Missouri State University (USA) discusses the results of a study examining the views of IS developers from

Korea regarding factors perceived to be critical in IS development. The information of this study is of great importance as the software industry expands into Asia.

Chapter 14 entitled, “A Web-Based Data Warehouse Planning — A Large-Scale Project Management Information System in Taiwan” by Jia-Lang Seng of National Chengchi University (Taiwan) describes a data warehouse planning project to develop a large-scale management information system for a Taiwan government agency in managing a nationwide multi-billion dollar science and technology project management and control process.

Chapter 15 entitled, “Behind the Celtic Tiger: Key Issues in the Management of Information Technology in Ireland in the Late 1990s” by Joseph McDonagh and Andrew Harbison of the University of Dublin (Ireland) presents the results of a survey discussing the key issues in the management of information technology in Ireland. The results of the survey indicate that the important issues can be classified into four main areas of concern: technical and operational issues, strategic and planning issues, relationship issues with the organization and recruitment of IS staff.

Chapter 16 entitled, “Turning E-Commerce Theory into Action in Ireland: Taming the Celtic Tiger” by Ira Yermish and Dale A. Bondanza of St. Joseph’s University (USA) examines a case study which becomes a possible strategy for entrepreneurial consultants seeking to provide expertise to rising e-businesses. The chapter discusses the demographics and technology issues facing Ireland, addresses the issues of the entrepreneur seeking to start an e-commerce consulting practice in Ireland and suggests additional steps to fill in missing details and develop a full-fledged business plan for action for young entrepreneurs.

Chapter 17 entitled, “Anxiety and Involvement: Cultural Dimensions of Attitudes Toward Computers in Developing Societies” by Roger Harris of the Universiti Malaysia Sarawak (Malaysia) and Robert Davison of City University of Hong Kong (Hong Kong) focuses on the adoption of information technology in developing societies. A case study examines computer anxiety and involvement with personal computers among six groups of students in different countries. Demographic and cultural factors weigh heavily in the results of the different anxieties and involvement of computers among the students.

Chapter 18 entitled, “The Context of Introducing IT/IS-Based Innovation into Local Government in Colombia” by Mahmoud M. Watad of Fairleigh Dickinson University (USA) examines the dynamics of introducing IT/IS into local municipalities in Columbia and addresses the factors that drive the introduction of geographical information systems into public organizations. The results are based upon data generated from documents and direct interviews in two municipalities. The findings indicate that middle managers are often the driving forces behind technological advances.

Chapter 19 entitled, “The Impact of Information Sharing on Order Fulfillment in Divergent Differentiation Supply Chains” by Troy J. Strader of Iowa State University (USA), Fu-Ren Lin of National Sun Yat-sen University (Taiwan) and Michael J. Shaw of the University of Illinois at Urbana-Champaign (USA) focuses on divergent differentiation supply chains which are commonly associated with industries such as fashion apparel. The chapter identifies the impact of information sharing by simulating order fulfillment in this supply chain type and finds inventory costs can be reduced while maintaining acceptable order fulfillment cycle times.

Chapter 20 entitled, “Leapfrogging an IT Labor Force: Multinational and Indigenous Perspectives” by Eileen Trauth of Northeastern University (USA) explores two key human resource issues for the global IT sector, ensuring a supply of qualified IT professionals in the host country and managing IT workers in a cross-cultural setting. The chapter is based upon an ethnographic study of the information sector in Ireland and the issues raised represent the experiences of American and Irish managers, Irish policy makers and Irish IT workers.

Understanding how to manage as a business or individual in the global technological world is becoming ever more important. Understanding differences in cultural paradigms, laws and governmental support, variations in infrastructure development is key to being successful in global information technology management. The chapters in this timely new book, all written by experts in their relative fields representing a variety of countries, present the most up-to-date research and theory in the field of global information management. This book is a must read for those interested in the theoretical dimensions of global information technology management or the practical challenges presented by operating across borders. Researchers, practitioners, managers and students will all benefit from the insights contained in this important new book.

IRM Press
January 2002

