

Preface

We are pleased to bring you this inaugural volume of *Advanced Topics in Electronic Commerce*. In our present era, electronic commerce has taken the stage as a necessary ingredient in education, manufacturing, and even research. Individuals involved in researching, improving, and using e-commerce need a strong resource to provide ideas and information on the utilization of these new technologies and what possibilities e-commerce offers. *Advanced Topics in Electronic Commerce, Volume 1* presents a wide range of the most current research in the adoption of e-commerce, e-business, and e-government. This inaugural volume will assist researchers, educators, and professionals in understanding the necessary components for e-technologies and how to best adopt these elements into their own classrooms, workplaces, and organizations throughout the world.

Chapter I, “Role of Small-Business Strategic Alliances in the Perception of Benefits and Disadvantages of E-Commerce Adoption in SME” by Robert MacGregor and Lejla Vrazalic, University of Wollongong (Australia), addresses the lack of research into comparing e-commerce use in small businesses that are members of a strategic alliance to those that have opted to remain outside such arrangements. This chapter presents the findings of a study of 176 regional small businesses in Sweden that investigated the impact of strategic-alliance membership on benefits and disadvantages associated with e-commerce adoption. The study also shows that correlations between e-commerce benefits exist and that the benefits can be grouped according to three distinct factors: costs, efficiency, and sales or inventory.

Chapter II, “The Effects of Animated Banner and Pop-Up Ads on Commercial Web Sites” by Yuan Gao, Ramapo College of New Jersey (USA), and Marios Koufaris and Robert H. Ducoffe, Baruch College (CUNY) (USA), explores the effects of two specific message-delivery techniques frequently adopted by online stores: continuously animated site banners and unexpected pop-up ads.

Results from 128 surveys collected in a 2x2 factorial design showed that each of the two techniques had a significant effect on perceived irritation in the hypothesized direction. This chapter also confirms that perceived irritation has a significant negative relationship with a visitor's attitude toward the Web site. This study fills a vacuum in academic research with respect to the negative effects of Web advertising and advises caution in the deployment of certain techniques. This chapter encourages future research exploring the effects of cross-site ads on consumer attitude and advocates additional studies linking format attributes and presentation techniques with attitudinal consequences in the design of commercial Web sites.

Chapter III, "Managing Security Vulnerabilities in a Business-to-Business Electronic Commerce Organization" by Shirley Ann Becker, Northern Arizona University (USA), and Anthony Berkemeyer, Texas Instruments, Inc. (USA), profiles the security risks associated with a business-to-business (B2B) e-commerce firm that recently experienced a denial-of-service attack. Its security vulnerabilities are described from both an internal and external perspective. Risk-management processes are recommended to improve overall security in the organization. The chapter concludes with a discussion of security challenges facing the B2B firm taking into account increasingly sophisticated security threats.

Chapter IV, "Government-to-Government Enterprises: A Road Map for Success" by Luiz Antonio Joia, Brazilian School of Public and Business Administration - Getulio Vargas Foundation and the Rio de Janeiro State University (Brazil), aims to present a heuristic frame to implement government-to-government endeavors effectively. The frame presented in this article was largely drawn from an actual government-to-government case study successfully implemented in Brazil. From the analysis of this explanatory case study involving the Brazilian Central Bank and the Brazilian Justice Department, some key success factors were singled out as well as the major hurdles to be overcome and causes thereof. These findings led the researcher to propose a heuristic frame not only to explain the conclusions drawn from the case study presented, but also to help researchers, practitioners, and policy makers to deploy government-to-government projects adequately.

Chapter V, "Effective Web Site Design: Insight from Information Processing" by Deborah E. Rosen and Scott J. Lloyd, University of Rhode Island (USA), and Elizabeth F. Purinton, Marist College (USA), focuses on Web design from an information-processing perspective. Studies are described using cognitive maps and preferences as a possible framework for understanding why some designs are more effective than others in terms of viewers' likelihood of revisit and overall impression.

Chapter VI, "Personalization of E-Commerce Applications in SMEs: Conclusions from an Empirical Study in Switzerland" by Petra Schubert and Uwe

Leimstoll, University of Applied Sciences, Basel (FHBB) (Switzerland), investigates the potential for personalization from the particular angle of SMEs. In addition to some theoretical fundamentals of personalization, this chapter presents the results of an empirical study. With the help of a survey, the application potential for personalization tools in Swiss companies is investigated. The conclusions show that SMEs are skeptical toward e-commerce applications that use personalization. It furthermore becomes clear that the heterogeneity of organizational and technical conditions impedes the development of standardized tools.

Chapter VII, “An Interventionist Approach to E-Commerce Implementation in SMEs” by David Tucker and Anthony Lafferty, Manchester Metropolitan University Business School (U.K.), sets out the main factors that are inhibiting SMEs from adopting e-commerce. It reports on a two-year teaching company scheme (TCS) between the Manchester Metropolitan University Business School (MMUBS) and Partwell Ltd., a U.K.-based manufacturing SME. The chapter highlights the philosophy and objectives of the TCS programme, and describes the process of technology transfer between Partwell and MMUBS. The action learning method by which e-commerce was introduced into the company is described and the results are evaluated against contemporary technology-diffusion literature. It is shown that gaining the trust of key employees at Partwell, coupled with the adoption of a soft approach to e-commerce implementation, was a critical success factor. Finally, the chapter reports on the benefits that Partwell has gained through the TCS experience.

Chapter VIII, “E-Government Evolution in Ireland: A Framework for Successful Implementation” by William Golden, Martin Hughes, and Murray Scott, National University of Ireland, Galway analyzes the Irish government’s evolutionary path to the provision of successful e-government. The success factors and stages of the evolution of e-government are identified and a detailed examination of how the Irish government successfully implemented its e-government strategy is presented. The lessons learned from this case provide a valuable road map for the successful attainment of citizen-centred e-government in other jurisdictions.

Chapter IX, “E-Taxation: An Introduction to the Use of TaxXML for Corporate Tax Reporting” by Vikramaditya Pant, M. Susan Stiner, and William Wagner, Villanova University (USA), provides some background for the study of TaxXML and will suggest why TaxXML is a very significant development in the realm of online tax systems. Online tax systems are rapidly replacing paper-based tax-reporting systems. Promising many advantages over the traditional method of hard-copy tax filing, these systems promise faster processing, lower costs, and increased efficiency. Using a specific language from the extensible markup language (XML) family called TaxXML, TIGERS, a government subcommittee for the establishment of electronic taxation standards, is looking to revolutionize

the way government administers taxation. TaxXML draws upon the concepts and constructs of basic XML and utilizes tax-related vocabularies to create a standardized and systematized framework of electronic tax preparation and reporting. While it is still in its early stages of development, it is unclear how hard the government will impose this technology onto the industry and also how the industry will react to this new technology.

Chapter X, “Online Consumer Trust: A Multi-Dimensional Model” by Felix B. Tan, Auckland University of Technology (New Zealand), and Paul Sutherland, The University of Auckland (New Zealand), aims to synthesize the viewpoints on consumer trust from across the disciplines and bring them together in a multidimensional trust model. It is hoped that in doing so, this broad assortment of views will highlight the true underlying nature of trust in the online environment. From these multiple disciplines, three dimensions of trust emerged — dispositional trust, institutional trust, and interpersonal trust — each bringing its own influencing factors into the overall intention to trust. From this model emerged the notion that the consumer as an individual is central to the understanding of trust, and in turn, that the individual’s personality and culture form the foundation for the development of trust.

Chapter XI, “A Customer Relationship Management System to Target Customers at Cisco” by Rahul Bhaskar, California State University - Fullerton (USA), describes the implementation of Internet-empowered customer-relationship management (CRM) at Cisco Systems Inc. After describing the organizational background of Cisco, the case takes the student into the issues that the executives faced after the market crash in 2001. John Chambers, Cisco CEO (chief executive officer), and his team decided to strengthen Cisco’s relationship with the customers so that the company could emerge stronger when the markets recovered. Questions are raised as to the implementation of technology and supporting processes in a company that traditionally had not considered CRM as its core marketing strategy.

Chapter XII, “E-Government and Social Exclusion: An Empirical Study” by Liz Lee-Kelley and Thomas James, University of Surrey (U.K.), examines the possibility of social exclusion from e-government implementation as a widening gap surfaces between those who are e-literate and those who are not. This gap is a result of the U.K. central government’s vision to deploy all local government services electronically by 2005. Anchored on two questions — (a) What are the factors influencing the adoption of e-government initiatives and (b) is the implementation of e-government likely to result in the social exclusion of certain groups in the community? — the study sampled members of the public from two local authorities in the U.K. to investigate their dispositions toward the new offering of online government services. This study contributes to a better understanding of the factors required for effective online public-services delivery and the ways to direct resources into increasing Internet literacy and use.

Chapter XIII, “From Seeking Information to Transacting: The Impact of Web-Site Quality on E-Taxation” by Stuart J. Barnes, Victoria University of Wellington (New Zealand), and Richard Vidgen, University of Bath (U.K.), examines the results of a survey of the quality of a Web site provided by the U.K. government (Inland Revenue). The survey was administered directly after the launch of a new system to enable the online submission of self-assessed tax returns. The instrument, E-Qual, draws on previous work in Web-site usability, information quality, and service-interaction quality to provide a rounded framework for assessing e-government offerings. The metrics and qualitative comments provide some detailed insights into the perceptions of users who attempted to interact with the online taxation system. The results point to specific areas in need of development on the Web site, which are found to be consistent with initiatives launched recently by the Inland Revenue.

Chapter XIV, “The Strategic Importance of E-Commerce in Modern Supply Chains” by Peter R. Gibson, University of Wollongong (Australia), and Janet Edwards, Loughborough University (U.K.), outlines strategic opportunities for e-commerce-enabled supply chains, considering some aspects of the motor industry, and greatly improved responses to customers. The authors demonstrate that there will be resulting strategic advantage for firms that become enabled to take the further step of making changes to their much wider manufacturing process philosophies. The developed knowledge associated with these changes will not be easily copied by competitors, and as such, provides the basis for a sustainable competitive advantage for those firms that are able to lead the way with the enabling technology of e-commerce in supply chains. However, leadership and change management are identified as key issues requiring further investigation.

Chapter XV, “On E-Markets in Emerging Economy: An Indian Experience” by Ashis K. Pani and Amit Agrahari, XLRI, Jamshedpur (India), presents MetalJunction.com, a joint venture of TISCO and SAIL, the steel makers contributing more than 60% to India’s total steel production. This chapter illustrates how organizations can use information technology to spin off key processes such as procurement and selling. In its first year of operations, MetalJunction.com generated substantial savings for TISCO and SAIL. The case also supports the argument that the business context in emerging economies is significantly different from the context in developed economies; hence, setting up a successful B2B marketplace may require the creation of basic services that are taken for granted in developed economies.

Chapter XVI, “An E-Government Model” by Sushil K. Sharma, Ball State University (USA), and Jatinder N.D. Gupta, The University of Alabama in Huntsville (USA), discusses how the movement toward electronic government is rapidly advancing as nations exploit new electronic means of communication such as the Internet. The e-government transformation process can be and often is

seriously hindered when initiatives are disjointed and not coordinated by an overall strategy. Although many countries are creating e-government services, there is no documentation of an e-government framework to guide the process. Guidelines for the implementation of e-government are also missing from the literature. This chapter conceptualizes a framework that could guide the transformation process toward an e-government model, and also suggests various actions needed for e-government implementation.

Chapter XVII, “Beauty is More than Skin Deep: Organisational Strategies for Online Consumer Risk Mitigation in Apparel Retailing” by Mary Tate, Beverley Hope, and Brent Coker, Victoria University of Wellington (New Zealand), investigates the reasons for the increase in online sales of apparel through an examination of the literature and research of best practice in a successful Australasian multichannel e-tailer. The chapter describes the apparel industry and examines online shopping risks and their consequences, paying particular attention to consumer risks and consequences in the apparel industry. Finally, a set of organizational strategies that can mitigate customer perceived risk and six key strategies for success in online apparel retailing are presented.

The field of e-commerce has become extremely prevalent within the past few years, and this new form of technology continues to grow and expand at a rapid pace. Professionals and educators alike will find that the *Advanced Topics in Electronic Commerce* series is a constantly up-to-date tool necessary for understanding and implementing e-technologies into the daily lives of professors, researchers, scholars, professionals, and all individuals in general. An outstanding collection of the latest research associated with the effective utilization of e-commerce, e-business, and e-government, *Advanced Topics in Electronic Commerce, Volume 1* provides the latest research on e-technologies and their integral role in our ever-changing technological world.

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