

# Preface

With the advent of e-business, organizations have been fundamentally changing the way they do their business. From business operation to managerial control to corporate strategy, e-business has become an integral part in organizations. As e-business evolution continues with emerging technologies and business models, a solid understanding of e-business innovation, process, and strategy proves invaluable for the successful e-business development and management. *E-Business Innovation and Process Management* provides researchers, professionals, and educators with the most current research on e-business trends, technologies, and practices. The book is divided into five segments: Section I, which discusses various e-business models; Section II, which addresses e-business strategies and consumer behavior model; Section III, which discusses e-business process modeling and practices; Section IV, which evaluates various electronic communication adoption and service provider strategies; and Section IV, which addresses privacy policies and implementation issues.

Section I: E-Business Models consists of two chapters. Chapter I, “Different Types of Business-to-Business Integration: Extended Enterprise Integration vs. Market B2B Integration,” by Frank Goethals, Jacques Vandenbulcke, Wilfried Lemahieu, and Monique Snoeck, Katholieke Universiteit Leuven (Belgium), argues that there exist two basic forms of business-to-business integration (B2Bi), namely extended enterprise integration and market B2Bi. This chapter clarifies the meaning of both concepts, shows that the difference between both is fundamental, and discusses the consequences of the difference in the realm of Web services development. The importance of coordination and the role of standards are studied for both types of e-business. The authors hope that this chapter clearly shows the foundations of B2Bi and that the chapter as such brings clarity into B2Bi practices.

Chapter II, “E-Business Models in B2B: A Process-Based Categorization and Analysis of Business-to Business Models,” by Mahesh S. Raisinghani, TWU (USA), Turan Melemez, Lijie Zou, Chris Paslowski, Irma Kikvidze, Susanne Taha, and Klaus Simons, Purdue University (USA), presents an in-depth study with examples from industry that provides a process-based approach to B2B e-commerce. The authors argue that due to the variety of existing models, it seems difficult to find a widely accepted categorization that can be analysed and assessed. A comparative examination of both the buy-side and the sell-side based on a process-related approach provides extensive insights for further comparative research and evaluation of products/services and models.

Section II: E-Business Strategies and Consumer Behavior Model consists of four chapters. Chapter III, “Drivers of Adoption and Implementation of Internet-Based Marketing Channels,” by Jørn Flohr Nielsen, Viggo Høst, and Niels Peter Mols, University of Aarhus (Denmark), analyzes factors influencing manufacturers’ adoption and implementation of Internet-based marketing channels based on survey data from Danish, Finnish, and Swedish manufacturers. The adoption is shown to be influenced by market pressure, management support, knowledge of IT, and, in particular, willingness to cannibalize other investments. As the process moves on, political factors become more important. Successful implementation seems mainly to depend on top management support and IT knowledge.

Chapter IV, “Content is King? Interdependencies in Value Networks for Mobile Services,” by Uta Wehn de Montalvo, Netherlands Organisation for Applied Scientific Research (The Netherlands), Els van de Kar, Delft University of Technology (The Netherlands), and Carleen Maitland, Pennsylvania State University (USA), investigates interdependencies in value networks for mobile services. This chapter analyzes the role of content and the content providers, respectively, in the process of value creation to bring these mobile services about. In a cross-case comparison, this chapter contrasts the power structures in different value networks for a number of mobile information and entertainment services and identifies similarities and differences in terms of the types of industrial players that assume positions of greater or lesser importance. The position of content providers turns out to be surprisingly weak.

Chapter V, “Buyer-Supplier Relationships in Business-to-Business E-Procurement: Effects of Supply Conditions,” by Ravinder Nath, Creighton University (USA), and Rebecca Angeles, University of New Brunswick Fredericton (Canada), investigates the relevance of the resource dependency and relational exchange theories in explaining e-procurement activities of firms. Survey data were gathered from members of the Institute for Supply Management and the Council for Supply Chain Management Professionals (formerly the Council of Logistics Management). Effects of the resource dependency theory variables—supply importance, supply complexity, supply market dynamism, and availability of alternatives—on the information exchange and operational linkages, the relational exchange theory variables, are observed. Study findings show that supply importance and supply complexity primarily predict information exchange and operational linkages.

Chapter VI, “Consumer Factors Affecting Adoption of Internet Banking Services: An Empirical Investigation in Taiwan,” by Wen-Jang (Kenny) Jih, Middle Tennessee State University (USA), and Shu-Yeng Wong and Tsung-Bin Chang, Da-Yeh University (Taiwan), empirically examines the effects of consumer-perceived risk, personal involvement, and perception of banks’ risk-reduction measures on their willingness to adopt Internet banking services. The results show that more experienced Internet users tend to involve themselves than their

less-experienced counterparts in the use of Internet banking services. Adoption willingness is directly affected by the perception of risk-reduction measurements, perceived risks, and personal involvement, and indirectly by familiarity with the Internet technology and Internet banking. Further, adoption willingness is found to be impacted more by the perception of risk-reduction measures than by the perceived risks.

Section III: E-Business Process Modeling and Practices consists of four chapters. Chapter VII, “A Simonian Approach to E-Business Research: A Study in Netchising,” by Ye-Sho Chen, Louisiana State University (USA), Guoqing Chen, Tsinghua University (China), and Soushan Wu, Chang-Gung University (Taiwan), draws upon five seemingly unrelated research areas of Herbert Simon (skew distributions, near decomposability, docility, causal and effectual reasoning, and attention management) and proposes a holistic framework of attention-based information systems for firms to frame an enduring competitive strategy in the digital economy. As an ongoing project, the framework is applied to model Netchising, an emerging research topic in global e-business.

Chapter VIII, “Business Process Modeling with the User Requirements Notation,” by Michael Weiss, Carleton University (Canada), and Daniel Amyot, University of Ottawa (Canada), demonstrates how the user requirements notation (URN) can be used to model business processes. URN combines goals and scenarios in order to help capture and reason about user requirements prior to detailed design. This chapter illustrates the notation, its use, and its benefits with a supply chain management case study. It then briefly compares this approach to related modeling approaches, namely, use case-driven design, service-oriented architecture analysis, and conceptual value modeling.

Chapter IX, “How E-Services Satisfy Customer Needs: A Software-Aided Reasoning,” by Ziv Baida, Jaap Gordijn, and Hans Akkermans, Free University Amsterdam (The Netherlands), and Hanne Sæle and Andrei Z. Morch, SINTEF Energy Research (Norway), outlines an ontological approach that models how companies can electronically offer packages of independent services (service bundles) based on understanding their customers’ needs and demands. To enable this scenario, it is necessary that software can reason about customer needs and available service offerings. The proposed approach for tackling this issue applies conceptual modeling and requirements engineering techniques to broadly accepted service management and service marketing concepts, such that software can be developed—based on the service ontology—that designs service bundles for a given set of customer demands. The authors use a running case example from the Norwegian energy sector to demonstrate how they put theory into practice.

Chapter X, “Personalization of Web Services: Concepts, Challenges, and Solutions,” by Zakaria Maamar, Zayed University (UAE), Soraya Kouadri Mostéfaoui, Fribourg University (Switzerland), Qusay Mahmoud, Guelph University (Canada), Ghita Kouadri Mostéfaoui, University of Montreal (Canada), and Djamal Benslimane, Claude Bernard Lyon 1 University (France), highlights the need for context in Web services personalization. This personalization aims at accommodating user preferences and needs. Besides user preferences, this chapter argues that the computing resources on which the Web services operate have an impact on their personalization. Indeed, resources schedule the execution requests that originate from multiple Web services. To track this personalization, three types of contexts are devised: user context, Web service context, and resource context. A fourth type of context denoted by security enables protecting the content of each of these three contexts.

Section IV: Electronic Communication Adoption and Service Provider Strategy consists of four chapters. Chapter XI, "Managing Corporate E-Mail Systems: A Contemporary Study," by Aidan Duane, Waterford Institute of Technology (Ireland), and Patrick Finnegan, University College Cork (Ireland), presents a multiple case study investigation of e-mail system monitoring and control. The study examines the interaction between key elements of e-mail control identified by previous researchers and considers the role of such controls at various implementation phases. The findings reveal eight major elements to be particularly important in monitoring and controlling e-mail systems within the organizations studied. These are: (1) form a cross-functional e-mail system management team; (2) implement and regularly update e-mail management software; (3) formulate a detailed and legally sound e-mail policy; (4) engage in structured e-mail system training; (5) create and maintain ongoing awareness of e-mail policy; (6) engage in a process of hybrid feedback and control-based e-mail monitoring; (7) firmly enforce discipline in accordance with the e-mail policy; and (8) conduct regular reviews and updates of the e-mail management program.

Chapter XII, "Predicting Electronic Communication System Adoption: The Influence of Adopter Perceptions of Continuous or Discontinuous Innovation," by Gary Hunter and Steven Taylor, Illinois State University (USA), investigates the factors predicting adoption of electronic communication systems. A contribution of the study is that it focuses on comparing factors predicting initial adoption relative to adoption of an upgrade. Given the importance of upgrade adoption in e-business, it is important to compare the factors predicting initial adoption and upgrade adoption. The study uses a survey-based method to examine the factors influencing the adoption of customer relationship management software (CRM).

Chapter XIII, "Computer Self-Efficacy and the Acceptance of Instant Messenger Technology" by Thomas Stafford, University of Memphis (USA), investigates motivations for instant messaging (IM) use in a technology acceptance framework that seeks to evaluate computer self-efficacy as an antecedent to critical TAM constructs. It is demonstrated that user self-efficacy is mediated in its impact on perceived usefulness of IM technology by the ease with which the technology can be used. This has important implications for managers seeking to promote IM applications, as well as for theorists interested in user efficacy and technology acceptance, with a conclusion that better user training will lead to greater user value in the technology.

Chapter XIV, "User Perceptions of the Usefulness of E-Mail and Instant Messaging," by Philip Houle and Troy Strader, Drake University (USA), and Sridhar Ramaswami, Iowa State University (USA), describes research that explores the impacts of unsolicited traffic on the perceived usefulness of electronic message technologies. Two technologies were explored: e-mail and instant messaging. The hypothesis is that unsolicited message traffic would have negative effects on the perceived usefulness of the technologies. However, the findings did not support this expected result. Users of the technologies appear to cope with the unsolicited traffic in a variety of ways. The implications of results are discussed from the perspective of managers, researchers, marketers, service providers, and public policy makers.

Section V: Privacy Policies and Implementation Issues consists of two chapters. Chapter XV, "Is P3P an Answer to Protecting Information Privacy?," by Noushin Ashrafi and Jean-Pierre Kuilboer, University of Massachusetts Boston (USA), aims at providing a brief explanation of P3P both as a new technology and as a standard. This chapter presents the background on use of technology for privacy protection. It then examines the role of P3P in privacy protection and presents a brief history of how it started. The authors use empirical data on top 500 interactive companies to assess its adoption in the e-commerce environment.

Chapter XVI, “Semi-Automatic Derivation and Application of Personal Privacy Policies,” by George Yee and Larry Korba, National Research Council (Canada), shows how personal privacy policies for e-business may be semi-automatically derived and applied. This chapter first examines privacy legislation to derive the contents of a personal privacy policy. It then describes two methods for semi-automatically generating a personal privacy policy, using community consensus to value privacy. The chapter concludes by presenting a privacy management model that explains how privacy policies are applied in e-business, followed by a discussion and a review of related works.

Recently, organizations have witnessed rapid improvement in e-business technologies and their deployment as a strategic weapon. The growing importance of e-business and its inevitable effect on organizations presents numerous challenges as well as opportunities for academics and practitioners. Sustained innovation, competitiveness, and market growth occur when e-business enables companies to redesign the business processes, develop new business models, and improve management practices. An outstanding collection of the latest research associated with the emerging e-business technologies and business models, *Advances in E-Business Research: E-Business Innovation and Process Management* provides researchers and practitioners with study findings and insight valuable in advancing the knowledge and practice of all facets of electronic business.

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