

Preface

Modern organizations are discovering that the relationship between effective and distinctive information resources management tactics, and the facilitation of growth and success both internally and externally, is undeviating. In order to gain a competitive edge, they must find innovative and creative ways of effectively managing their ever-evolving information resources. An increasing number of organizations are implementing new knowledge management strategies and maximizing the human aspects of effective information management. *Innovative Technologies for Information Resources Management* provides information technology researchers, scholars, educators, and practicing managers the latest research on managing the technological, organizational, and human aspects of information utilization and management. This volume presents new concepts in handling and sharing information resources with organizations and individuals worldwide.

Chapter I, entitled “A Post Implementation Case Study and Review of Enterprise Resource Planning (ERP) Implementations: An Update,” by Joseph R. Muscatello, Kent State University (USA) and Diane H. Parente, Penn State Erie - The Behrend College (USA), discusses the strategic and tactical advantages that firms can gain from the successful implementation of enterprise resource planning (ERP) systems. They will also examine the negative impacts of implementing poorly performing ERP systems. The intent of this study is to capture new theories that can help practitioners successfully manage ERP systems by performing a post-ERP implementation examination of eight corporations and a pertinent research review. Information technology is based on a qualitative research design involving case-study methodology. The propositions derived from the study form a set of considerations that influence the success of ERP systems.

Chapter II, entitled “ERP Usage in Practice: An Empirical Investigation,” by Mary C. Jones and Randall Young, University of North Texas (USA), presents the results of an exploratory study of enterprise resource planning (ERP) usage in firms in the Fortune 1000. They examine the benefits and changes they have realized from ERP, and give insight into various aspects that firms can use to evaluate how they are managing their own systems. The study also addresses the extent to which various types of ERP software have been implemented, and whether there is a relationship between types of software and benefits. Additionally, it examines ERP enabled change in light of organizational configuration.

Chapter III, entitled “Improvements in Operational Efficiency Due to ERP Systems Implementation: Truth or Myth?” by Vijay K. Vemuri and Shailendra C. Palvia, Long Island University (USA), presents the concern of escalating IT investments and their lack of justification. In this study, the authors emphasize the need for more direct measures, such as intangible or tangible. Intangible direct measures can be improved customer satisfaction or confidence, enhanced employee morale, and so forth. Tangible direct measures can be reductions in inventory control costs, improvement in cash management, reduction in operating costs, and so forth, in order to reduce or eliminate confounding effects due to industry

type and size, they investigate the impact of ERP systems implementation on operational efficiency of medium-sized firms in the pharmaceutical and chemicals industry.

Chapter IV, entitled “Consumer Perceptions of Mobile Advertising: An Application of the Theory of Reasoned Action,” by Wen-Jang (Kenny) Jih, Middle Tennessee State University (USA), Su-Fang Lee, Overseas Chinese Institute of Technology (Taiwan), and Yuan-Cheng Tsai, Chung-Shan Institute of Science and Technology (Taiwan), presents a two-stage approach used in examining the influencing factors of consumer behaviors in the context of mobile advertising. The first stage of the study evaluates the correlation relationship of consumer motives for receiving mobile advertising and their attitude toward mobile advertising. The second stage of the study applies Fishbein and Ajzen’s theory of reasoned action model to examine consumer behavior regarding mobile advertising. Additionally, they will discuss implications for e-commerce application developers and marketers.

Chapter V, entitled “Effective Product Customization on the Web: An Information Systems Success Approach,” by Pratyush Bharati, University of Massachusetts (USA) and Abhijit Chudhury, Bryant College (USA), presents research that uses an experiment for data collection and examines these relationships using the structural equation modeling (SEM) approach. They explore the impact of system and information quality and information presentation on interface satisfaction and decision satisfaction. Additionally, they examine the impact of the latter two satisfaction factors on overall user satisfaction and intention to use. The study reveals that improved system quality, vis-à-vis choiceboards, leads to better information and decision satisfaction on the part of the users. This, in turn, leads to higher overall satisfaction and intention to use.

Chapter VI, entitled “Fit Between Strategy and IS Specialization: A Framework for Effective Choice and Customization of Information System Application Modules,” by Marc N. Haines, University of Wisconsin - Milwaukee (USA), Dale L. Goodhue, University of Georgia (USA), and Thomas F. Gattiker, Boise State University (USA), presents a framework they developed in order to better understand effective information system module choice and customization from a strategy perspective. In this study, they present four case examples in which they analyze the strategic importance of the IS module, and provide guidance for the amount of specialization that is appropriate.

Chapter VII, entitled “The Progression of Client-Vendor Relationships in Offshored Applications Development,” by Rajesh Mirani, University of Baltimore (USA), presents an evolutionary framework for the establishment and progression of client-vendor relationships in the context of offshored applications development. It is argued that such a relationship typically begins as a cost-reduction exercise, with the client contracting out simple, structured applications to one or more offshore vendors. Over time, the client assigns increasingly complex applications to selected vendors, and cultivates a loose, trust-based, network-like relationship with them. As offshored applications continue to evolve and become business critical, the client may seek to regain control by establishing a command-based hierarchy. This may be achieved through part or full ownership of a vendor organization, or by starting a captive offshore subsidiary. Thus, the initial client objective of cost reduction is ultimately displaced by one pertaining to risk control. This chapter justifies the proposed framework through prior research, and follows up with a case study that describes how a specialty telecommunications company is pursuing just such an evolutionary path.

Chapter VIII, entitled “Understanding Information Technology Implementation Failure: An Interpretive Case Study of Information Technology Adoption in a Loosely Coupled Organization,” by Marie-Claude Boudreau, University of Georgia (USA) and Jonny Holmström, Umeå University (Sweden), uses the theory of loose coupling to explain failure in the adoption of an information technology aimed at improving collaboration across one organization’s internal boundaries. Their research details an interpretive case study of a single organization, MacGregor Crane, in which relatively autonomous individuals are

only loosely connected in terms of their daily interactions. In an attempt to increase collaboration, the Company implemented Lotus Notes®. However, the effort was deemed unsuccessful because employees in various units, particularly engineering, were reluctant to share information across unit boundaries. As a result of this outcome, it is suggested that the successful implementation of a collaborative IT within a loosely coupled organization should involve the reconsideration of the organizational members' roles and functions.

Chapter IX, entitled "The Impact of Communication Medium on Virtual Team Group Process," by Hayward P. Andres, North Carolina A&T State University (USA), examines the crucial work group structures and communication technologies used by organizations for work groups to effectively and efficiently engage in group problem solving and decision making. Communication technologies, such as videoconferencing systems, have enabled the creation of "virtual organizations" and "virtual teams" that span time, space, and distance. This study investigates the hypotheses that team structure (e.g., fully collocated teams vs. virtual teams comprised of dispersed subgroups) and the associated communication mode (i.e., face-to-face vs. videoconferencing) will impact virtual team group processes (e.g., team orientation, workload sharing, proclivity to seek and exchange information) that evolve. The overall results of the study indicated that information exchange and activation was positively associated with productivity and process satisfaction.

Chapter X, entitled "Understanding the 'Mommy Tracks': A Framework for Analyzing Work-Family Balance in the IT Workforce," by Jeria L. Quesenberry, Eileen M. Trauth, and Allison J. Morgan, The Pennsylvania State University (USA), presents a framework for analyzing work-family balance from a field study of women employed in the American IT workforce. In this study, the framework is used in support of the theoretical argument that women exhibit a range of decisions regarding career and parenthood. The findings are examined through the lens of the individual differences theory of gender and IT to show the range of ways in which work-family considerations influence women's IT career decisions.

Chapter XI entitled "Perceptions in Computer-Supported Collaborative Learning: Interaction of Cultural Diversity, Group Size and Leadership," by Yingqin Zhong and John Lim, National University of Singapore (Singapore), examines computer-supported collaborative learning (CSCL), a topic under which research attention has grown exponentially due to advances in e-learning technology and paradigmatic shifts in the educational arena. In this study, a laboratory experiment with a 2×2×2 factorial design was conducted to investigate the interaction effects of perceived cultural diversity, group size, and leadership on learners' performance and satisfaction with process.

Chapter XII, entitled "Breaking the Knowledge Acquisitions Bottleneck Through Conversational Knowledge Management," by Christian Wagner, City University of Hong Kong and School of Information Science (Hong Kong) and Claremont Graduate University (USA), investigates knowledge acquisition bottlenecks and proposes the use of collaborative, conversational knowledge management to remove them. The research presented within this study demonstrates the opportunity for more effective knowledge acquisition, through the application of the principles of Bazaar style, open source development. Also presented is the introduction of wikis as software that enables this type of knowledge acquisition. It empirically analyzes the Wikipedia to produce evidence for the feasibility and effectiveness of the proposed approach.

Chapter XIII, entitled "Effects of Managerial Drivers and Climate Maturity on Knowledge Management Performance: Empirical Validation," by Jang-Hwan Lee, Samsung SDS (Korea), Young-Gul Kim, Korea Advanced Institute of Science and Technology (Korea), and Min-Yong Kim, Kyunghee University (Korea), examines the effects of the organizational climate maturity on knowledge management performance, measured in terms of knowledge quality and knowledge sharing level. The influence of

managerial drivers, such as reward, top management support, and IT service quality, and their positive influence, such as climate maturity, are investigated.

Chapter XIV, entitled “Development and Validation of an Instrument to Measure Maturity of IT Business Strategic Alignment Mechanisms,” by Deb Sledgianowski, Hofstra University (USA) Jerry N. Luftman and Richard R. Reilly, Stevens Institute of Technology Management (USA), empirically tested and validated a theoretical framework of the maturity levels of management practices and strategic IT choices that facilitate alignment. The framework, confirmatory factor analysis (CFA) validated six factors and identified 22 indices to measure strategic alignment maturity. A mixed model repeated measures analysis of variance (ANOVA) obtained significant results for both the main effect and interaction effect of differences for the six maturity factors across the eleven business units. The regression analysis found a positive association between overall strategic alignment maturity and respondents’ self-rated maturity. All of these findings show great promise for the assessment instrument to be used as a diagnostic tool for organizations to improve their IT-business alignment maturity levels.

Chapter XV, entitled “A Lag Effect of IT Investment on Firm Performance,” by Sangho Lee and Soung Hie Kim, Korea Advanced Institute of Science and Technology (South Korea), discusses the positive effects of IT investment on firm financial performance when a distinct range of characteristics is examined. Using a distributed lag model, the authors explore the relationship between IT investment and firm performance with consideration of the information intensity of the industry. The findings indicate both a positive effect and a positive lag effect of IT investment. The effects of IT investment in the high information-intensive industry are significantly larger than in the low information-intensive industry. Furthermore, a lagged effect of IT investment is larger than an immediate effect, regardless of the information intensity of the industry. It is concluded that firms in the high information-intensive industry need to be more cognizant of performance factors when investing in IT investment than in the low information-intensive industry.

Chapter XVI, entitled “The Institutionalization of IT Budgeting in Firms: Investigating Sources of Influence,” by Qing Hu, Florida Atlantic University (USA) and Jing “Jim” Quan, Salisbury University (USA), introduces the perspective of “external institutional influence” for examining corporate IT budgeting processes, in addition to the internal affordability perspective. Using firm level IT and financial data of publicly traded companies in the financial sector, the authors show that the two most significant sources of influence on corporate IT budgets are the firm’s IT spending level of the previous year (internal) and the IT spending level of the perceived industry leaders (external). They conceive that as IT becomes pervasive in all aspects of business operations and all sectors of the economy, IT budgeting processes have been, at least partially, institutionalized. Throughout this study, the implications of this institutionalization are discussed and future research directions are suggested.

Chapter XVII, entitled “A Metadata Model and Related Framework for Unstructured Document Management in Organizations,” by Federica Paganelli, Maria Chiara Pettenati, and Dino Giuli, University of Florence (Italy), proposes a metadata model, the DMSML (document management and sharing markup language), to enable and to ease unstructured document management by supporting the design of document management systems (DMS). Typically, DMS systems lack effective functions for automatic document management, which is a strategic problem for organizations. The authors contend that the extensive use of this metadata language will render organizational information explicit, promoting information reuse and interoperability, in a more profitable way than what is guaranteed by proprietary DMSs.

Chapter XVIII, entitled “Relevance and Usefulness of Corporate Web Site Disclosure Practices,” by Ram S. Sriram, Georgia State University (USA) and Indrarini Laksmna, Kent State University (USA), investigates whether corporations are following the “best disclosure practices” when presenting business reports on their Web sites. The authors use recommendations made by the Jenkins Committee (1994) as

a benchmark to evaluate disclosures on corporate Web sites for value, relevance, and quality of information. Using 26 items recommended by the Jenkins Committee and Meek, Roberts, and Gray (1995), they compute a disclosure score in order to indicate best reporting practices. The findings within this study reveal that most corporations do not follow “best disclosure practices” when reporting information on their Web sites. The conclusions suggest that in order for Web site disclosures to be deemed valuable, relevant, and useful to investors, corporations must make major improvements.

Chapter XIX, entitled “The Role of Impulsiveness in a TAM-Based Online Purchasing Behavior Model,” by Xiaoni Zhang, Northern Kentucky University (USA), Victor R. Prybutok, and Chang E. Koh, University of North Texas (USA), investigates consumer online purchasing behavior using an augmented technology acceptance model. In particular, the authors’ conjecture that Web use leads to intention to purchase online. For this study, the authors developed a survey instrument to collect data and use structural equation modeling to validate the research model. The conclusions of the study confirmed all but one of the hypotheses. The unconfirmed hypothesis was one that links social norms and online buying behavior. This is that the positive relationship between consumer impulsiveness and online purchasing behavior suggests that online stores should design their Web sites to attract impulse purchases.

Chapter XX, entitled “Home-Based Telecommuting: Technology’s Role,” by Ellen Baker and John Crawford, University of Technology (Australia) and Gayle C. Avery, Macquarie, Graduate School of Management (Australia), examines the role of technology in home-based telecommuting (HBT), and the implications of this role for organizational IT departments and for managers of telecommuting employees. The authors address questions such as: Does technology both facilitate and hinder home-based telecommuting?

Technology has become the foundation of all types of organizations in today’s information society. It facilitates and improves communication within and outside of the organization; it streamlines business processes and aids in decision making.

Innovative Technologies for Information Resources Management provides a collection of the latest research related to effective utilization and management of information technology to coordinate and use information resources. Practitioners and business professionals will find concrete advice on how to maximize their IT investments, their knowledge management initiatives, and their training programs. This innovative volume is a must read for anyone interested in gaining a more thorough understanding of how to successfully manage and enrich their valuable technology and information resources.