

EDITORIAL PREFACE

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Angappa Gunasekaran, Editor-in-Chief, IJEIS

International Journal of Enterprise Information Systems (IJEIS) has become one of the major journals for publishing articles on enterprise information systems. Also, IJEIS attracts a good number of high-quality submissions from all over the world. IJEIS has received wider citations from both academics and practitioners. The quality of the articles appeared in the published issues is a testimony for the success of the journal. IJEIS has a plan to publish several special issues in the emerging areas of enterprise information systems from 2007 onwards. Potential editors are welcome to send their proposals for special issues.

In this current issue of IJEIS, there are five articles which deal with issues such as modeling buyer-supplier relationship in dynamic environment, adoption of technological innovation in B2C e-commerce, critical success factors for the implementation success of ERP systems, learning from Model ERP projects, and the digitization of an aerospace supply network. An overview of these five articles follows.

Designing efficient business processes throughout the supply chain, and controlling their speed, timing, and interaction with one another are decisive factors in a competitive and dynamic environment. In their article “A Negotiation-to-Coordinate (N2C) Mechanism for Modeling Buyer–Supplier Relationship in Dynamic Environment,” Jain, Wadhwa, and Deshmukh propose a novel Negotiation-to-Coordinate (N2C) mechanism to explore the interactive nature of the buyer-supplier relationships for dynamic environments. The proposed N2C mechanism uses prioritized fuzzy constraints to represent trade-offs among the different probable values associated with the negotiation issues and to signify how agents should make concessions. Supervisor agent in the N2C mechanism takes into account the conflicts of interest of buyer’s agent and supplier’s agent, and the proposal and plan generated by supervisor agents helps in resolving the true and potential conflicts of interests for buyer’s agent and supplier’s agent. The proposed computational framework based on fuzzy constraints is suited for capturing the dynamics by modeling trade-offs between different attributes of a product leading to a fair and equitable deal for both suppliers and buyers. The proposed approach models the intricacies in the face of the imprecise, uncertain and conflicting nature of objectives. The efficacy of the proposed approach is demonstrated through an illustrative example.

Managerial attitudes play an important role in facilitating the championship of innovation adoption. However, there are few empirical studies which show the mediating role of managerial attitudes as a link between innovation determinants and adoption. Based on an innovation theory, To and Ngai in their article “The Role of Managerial Attitudes in the Adoption of Technological Innovations: An Application to B2C E-Commerce,” develop a conceptual model to show how managers evaluate internal (relative advantage
and compatibility of adopting an innovation) and external (competitive pressure and partner conflict) determinants that affect the intention to adopt technological innovations. They focus on empirical tests conducted on B2C e-commerce. Data collected from 109 different enterprises indicate that managerial attitudes, through perceived relative advantage and compatibility of adopting a technological innovation, have indirect effects on the intention to adopt the innovation. In addition, competitive pressure has a direct influence on the adoption of an innovation.

Research on Enterprise Resource Planning systems implementation has drawn much attention in the last decade. Identifying and testing the critical factors that affect implementation success for this type of systems is one of the important streams of research in this field. Based on data gathered from a sample of 70 respondents who are actively involved in their companies’ ERP implementation process, the article “Critical Factors for Implementation Success of ERP Systems: An Empirical Investigation from Bahrain”, by Kamhawi aims to extend this stream of research with another framework of success factors based on a developing country setting, namely Bahrain. The influences of some selected critical factors were examined on two success dimensions: project success and business metrics success. Results support previous research findings in this area concerning the impact of factors such as project planning, organizational resistance, and ease of use on ERP project success metrics. Also, the study results show that project planning, business process reengineering, and organizational fit have significant influence on business success metrics. However, no significant impact was found for some classical success factors such as top management support, technical fit, training, competitive pressure, and strategic fit on both project and business success. The article ends with implications for these findings and possible extensions for the study.

The main purpose of the article “Learning from Model ERP Projects” by Soja and Put is to identify the characteristics of enterprise resource planning implementations connected with project success. The study combines two statistical methods of clustering analysis employing Ward’s hierarchical and k-means nonhierarchical methodologies. The ERP projects are described by 12 attributes divided into effort, effect, and success indicators. The analysis draws on research conducted among a few dozen companies implementing an ERP system into their organizations. The investigated projects were divided into groups of homogenous elements on the basis of the attribute values. Next, the obtained clusters were ordered using the average value of success achieved. In consequence, the groups with the most desirable attributes were recognized and the clusters with the least desirable characteristics were extracted. The thorough examination of these extreme groups containing model and anti-model projects was the basis for drawing conclusions for practitioners and researchers towards ERP projects enhancement.

Unique and certainly complex networks of suppliers, clients, and operators (end users) characterize the supply chain in the aerospace manufacturing industry. With the emergence of e-commerce and enterprise information systems, a number of processes, locations, and partners can be linked globally—and in real time. Motivated by the need to achieve global integration, a Canadian aerospace manufacturer has embarked on a company-wide digitization initiative to integrate several members of its supply network. Laframboise and Reyes in their article “The Digitization of an Aerospace Supply Network” illustrate a pilot study on how three separate business practices (i.e., process integration, supply chain management, and quality management) may relate to—and indeed reinforce—each other in this industry. Furthermore, this network-wide initiative can enhance new product development activities by integrating customer relationships management with collaborative design. From the perspective of the participating firm, we suggest that a truly global supply network needs to integrate several business practices in parallel in order to prosper as a digital extended enterprise.

The editor-in-chief, associate editors, and the editorial board members invite potential authors and guest editors to forward their papers and special issue proposals in the areas of ERP systems for consideration. I would like to thank Professor Medhi Khosrow-Pour, Ms. Kristin Klinger, and Ms. Meg Stocking of Idea Group, Inc. for their continued and outstanding professional support to the journal.
Angappa Gunasekaran is a professor and the chairperson of the Department of Decision and Information Sciences in the Charlton College of Business at the University of Massachusetts (North Dartmouth, USA). Previously, he has held academic positions in Canada, India, Finland, Australia and Great Britain. He has BE and ME from the University of Madras and a PhD from the Indian Institute of Technology. He teaches and conducts research in operations management and information systems. He serves on the Editorial Board of 20 journals and edits a journal. He has published about 190 articles in journals, 60 articles in conference proceedings and 2 edited books. In addition, he has organized several conferences in the emerging areas of operations management and information systems. He has extensive editorial experience that includes the guest editor of many high profile journals. He has received outstanding paper and excellence in teaching awards. His current areas of research include supply chain management, enterprise resource planning, e-commerce, and benchmarking.