Editorial Preface

Inaugural Issue:
Enterprise Information Systems & Organizational Competitiveness

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Introduction

It is my pleasure to welcome all of you to the inaugural issue of the *International Journal of Enterprise Information Systems (IJEIS)*. IJEIS’s mission is to promote research on enterprise information system(s) (EIS) such as the enterprise resource planning (ERP) and electronic commerce (EC). These systems will have a significant impact on organizational productivity and competitiveness in the increasingly global markets of the 21st century, and they warrant the attention of researchers. Globalization of markets and operations is closely related to the success of a company. This paradigm heightens the importance of sharing information and thus, the critical role of EIS in enhancing organizational effectiveness and competitiveness. ERP systems are the software tools used to manage enterprise data and provide information to those who need it, when they need it. These systems help organizations manage their supply chains: receiving, inventory management, customer order management, production planning and control, shipping, accounting, human resource management, and all other activities that take place in a modern business (Davenport, 1998).

A successful ERP will reduce operating costs, generate more accurate demand forecasts, speed production cycles, and greatly enhance customer service (Umble et al., 2003). The successful use of ERP systems has improved cash management, reduced personnel requirements, and reduced overall information technology costs by eliminating redundant information and computer systems (Loizos, 1998; Stein, 1999). “While the top 100 ERP vendors posted positive results in 2002, we expect that the trend will continue as integrated solutions are becoming lower in price, easier to implement, and quicker to generate tangible returns,” said Albert Pang, director of Enterprise Applications research at IDC. The overall environment is encouraging for ERP vendors, especially those that target the small to midsized industries with the help of channel partners and add-on technology providers (http://www.marketresearch.com/map/prod/940733.html). The worldwide ERP market will grow at 24.9% and reach $73 billions in 2004. ERP integrates data and business processes across the enterprise and allows strategic planners to reduce costs, provide better service to customers, and help firms develop a competitive edge. Over the next four years, ERP system sales growth will be driven by continued worldwide economic growth, especially in Europe. ERP systems will find their way into companies and industries where they have not yet been embraced. Increased func-
tionality and expanded application of ERP will come with the growth of Web enabled applications. Approximately 65% of the ERP market currently belongs to SAP, Oracle, PeopleSoft, J.D. Edwards, and Baan. Figuring prominently in optimistic industry sales forecast are sales in the e-Business relationship management (ERM) and supply chain management (SCM) segments of the ERP market (http://www.infotechtrends.com/enterpriseresourceplanning.htm).

Companies all over the world spent billions of dollars designing and implementing EIS in the form of ERP systems, with the objective of achieving an integrated global supply chain. ERP implementation suffers from two common problems: (i) inaccurate expectations and (ii) customization/tailoring challenges. Most ERP implementations today result in cost and schedule overruns. For example, 10% of ERP implementations succeeded with full functionality, within forecast cost and time frames. Cost overruns average 178%, schedule overruns average 230%, and implemented functionality averages 41% of what was desired (Aikan, 2002). According to Aikan (2002), a 2001 Robins-Gioia Survey of ERP implementers found that 51% of them viewed their ERP implementations as unsuccessful. Additionally, 46% of those respondents said that their organizations did not understand how to use the system to improve the way they conducted business.- In a 2001 Conference Board Survey, only 34% of respondents were very “satisfied” with what they got, and 40% of the projects failed to achieve their business goals within one year of going live (Aikan, 2002). These findings, taken together, suggest a lack of understanding of ERP implementation complexities. Routinely, the cost and the time required to implement ERP systems are underestimated, while the scope of what organizations can do with their ERP is overestimated. Markus et al. (2000a, b) discussed the issues of multisite ERP implementations and adopters’ experiences on the problems encountered and success achieved with ERP implementation.

Globalization of markets and operations creates tremendous pressure to integrate value-added activities along the value chain and in turn to develop an integrated supply chain management system to increase organizational competitiveness. Considering the importance of globalization, responsiveness, flexibility, and achieving integrated global supply chain management, the EIS will be critical to success. In recognition of the importance of EIS, a journal dedicated to this field is appropriate and timely.

As noted, a primary objective of the IJEIS is to provide comprehensive coverage of various EIS, such as ERP and EC, in order to facilitate a better understanding of their implications for supply chain management and organizational competitiveness. Design, development and implementation issues related to ERP and EC will be covered. Organizational, people and technological issues of EIS will be covered. Knowledge of ERP and EC will be expanded to help researchers and practitioners develop suitable strategies, tactics, and operational plans for EIS. Improved communication in organizations should follow. The journal will publish original contributions in the areas of design and implementation of EIS. IJEIS intends to be a forum for exchanging new ideas and examining developments in the field of EIS. It will be a medium of communication among EIS researchers and practitioners.

IJEIS will provide a forum for interaction among researchers and practitioners working with and interested in EIS.- IJEIS aims to promote and coordinate developments in the field of EIS. The global dimension of EIS will be emphasized, as it can help overcome various cultural barriers and meet the challenges created by technological and organizational change in global markets. IJEIS will provide executives and academics with state of the art information on EIS and act as
a vehicle to help professionals, academics and researchers, working in the field of EIS, to disseminate and share information on the latest developments in the field. IJEIS will publish original research, literature reviews, technical reports, case studies, conference reports, management reports, book reviews, notes, commentaries, and news. Special issues devoted to important topics in EIS will occasionally be published.

This inaugural issue of IJEIS contains five articles that examine design, development and implementation issues pertaining to EIS. An overview of those five articles follows.

Inside this Issue

Grant and Tu, in their article, Levels of Enterprise Integration: An Exploratory Study Using Case Analysis, propose a six-level taxonomy of enterprise integration and discuss the ability of ERP to satisfy each of the six levels. They analyzed six well-known industry case studies, including IBM, Cisco, Tektronix, Vandelay, China Holdings, and APD Manufacturing. Two companies, APD and China Holding, did not exhibit evidence of global integration, while others did. System-user (Level –II) integration was missing from all except APD. Integrating “islands-of-technology” seems no longer to be the dominant integration issue, as it was in the 1980s. Dominant integration issues at present are functional integration, customer relationship management, and supply chain management.

ERP systems are a growing area of research in business information systems. In An Exploratory Case Study of Enterprise Resource Planning Implementation, by Subramanian and Hoffer, the effect of ERP implementation on users was examined. The authors employed the implementation and performance stage model and studied issues related to adaptation, acceptance, and routinization. A case study was conducted to explore these research issues. This case study is based on a survey and interviews of 25 employees in an organization. The analysis of the results of this case study points to a positive user climate during transition to SAP, increased user productivity, and improved job understanding through the use of SAP software.

The article, Unleashing the Potential of SCM: Adoption of ERP in Large Danish Enterprises, Møller, discusses the present state of ERP adoption. The potential benefits of SCM and integration are about to be unleashed. This article presents the results and implications of a survey on ERP adoption in 500 of the largest Danish enterprises. This study is based on telephone interviews with ERP managers in 88.4 % of the “top 500” enterprises in Denmark. Based on the survey, the article suggests the following four propositions: (i) ERP has become the pervasive infrastructure; (ii) ERP has become a contemporary technology; (iii) ERP adoption has matured; and (iv) ERP adoption is converging towards a dominant design. Finally, the article discusses the implications of the state of practice on SCM research. Møller highlights the need for further research to examine our understanding of ERP and move toward ERP II, in order to accommodate emerging practices.

Although the overall investment in information technology (IT) decreased during the first few years of the 21st century, B2B e-commerce continued to expand at a rapid rate (Lim & Wen, 2002). The growth of B2B e-commerce to a large extent is based on accounting and EIS that permit electronic data transmission and execution of transactions in an effective and efficient manner. Since B2B e-commerce is Internet based, the EIS required to support B2B e-commerce must be Internet powered. The primary language of the Internet, Hyper-text Mark-up Language (HTML), is not well suited for transmitting
data and executing transactions. Consequently, Extensible Mark-up Language (XML) was developed to facilitate a wide range of electronic information exchange applications, including many applications related to B2B e-commerce. XML also allows legacy data to be accessed through the Internet. As initially conceived, XML had a number of constraints, particularly in the area of data integrity and security; however, these constraints are being overcome. The article *Enterprise Information Systems and B2B E-Commerce: The Significance of XML*, by Baker, discusses the objectives of using XML in B2B e-commerce, reviews the technical structure of XML, and discusses ways that data integrity can be maintained and security enhanced while engaging in B2B e-commerce.

Many organizations have experienced the technical, integration and business process re-engineering benefits of implementing EIS. As of today, a number of EIS have been developed, namely, customer relationship management systems (CRM) and ERP systems. Recently CRM systems have gained significant interest, both in industry and academia. Understanding of the customer’s perspective would help CRM systems better cater to the customers’ needs, thus achieving customer loyalty and satisfaction. With a better understanding from the point of the customers, management would be able to better plot a course for the CRM endeavor. Understanding the significance of this, the article *Customer Perspective of CRM Systems: A Focus Group Study* by Pan, looks at CRM systems from the perspective of the customer through the conduct of focus group discussions.

IJEIS seeks original manuscripts on the design, development and implementation of EIS. It will include case studies, empirical analysis, and analytical and simulation models to highlight and address the justification, outsourcing, selection, and implementation issues of EIS. Comparative studies on the evaluation and implementation of EIS across industries, nations and cultures are desired. Articles on EIS in small and medium enterprises are also encouraged.

Academics and practitioners are invited to forward their contributions in the areas of EIS for possible publication in IJEIS. Potential editors are welcome for guest editing special issues in emerging areas of logistics systems and management. Please direct all your communication to the editor-in-chief (agunasekaran@umassd.edu). Some suggested topics include (but are not limited to):

- Enterprise resource planning
- Design, development and outsourcing of EIS projects
- EIS, integration of functions and extended enterprises
- Organizational issues on systems integration
- Enterprise-wide client-server architecture
- Strategic management information systems
- Knowledge-based systems engineering
- CASE tools for system development
- ERP, customer relationship management and business process reengineering
- Modeling concepts and information integration tools
- E-commerce (B2B and B2C) and ERP
- E-procurement, and Web-based logistics and supply chain management
- Intranet and extranet business applications
- Human-computer interaction on enterprise information systems
- EIS implementation and organizational and systems issues
- EIS systems and virtual enterprises

IJEIS will provide comprehensive coverage to enhance the understanding of organizational, people and technological issues of EIS. Design, development, justification and implementation of EIS, including ERP and EC, will be discussed. Articles concerned with
the development of an integrated supply chain with ERP systems, business process reengineering, EDI, Intranets, Extranets and the Internet are encouraged. Performance measures and metrics for assessing the design, implementation, and use of EIS will be covered, as will models and experiences with EIS outsourcing. Conceptual frameworks, case studies, empirical analyses, and simulation models pertaining to EIS are encouraged.

IJEIS is dedicated to EIS including ERP and EC and will publish original ideas on the design and implementation of EIS for improving communication in a global enterprise environment. This journal differs from other journals in terms of scientific rigor—it will provide strong evidence to substantiate the arguments, findings and results that are reported in the journal. IJEIS will include regular editorials on the development of EIS and Internet editorials to highlight the opportunities available for research and applications of EIS. Theoretical perspectives and managerial tools for decision making, justification of EIS, integration of business processes, performance measures and metrics, and information models will be presented. Articles on new and innovative methods for the design and implementation of EIS are encouraged. Readers of this journal will benefit from coverage of the latest developments in EIS and their influence on success in different organizational environments. Readers can expand their knowledge of ERP and EC by reading the articles that will appear in IJEIS.

Authors are encouraged to publish in IJEIS. It will have wide international coverage and readership. IJEIS has an excellent peer-review system that, with the aid of the Internet and WWW, enables timely feedback on articles submitted and hence reduced overall lead-time for publication. Idea Group Publishing is one of the premier publishing houses, known for information management books and journals, and has an excellent and professionally qualified staff to produce an outstanding quality print version and WWW version of the journal. IJEIS will appeal to distinguished academicians and practitioners from around the world to constantly improve the scope and content of IJEIS to reflect changes in the field.

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