



CALL FOR PAPERS

Decision Support Systems

Special Issue on

Mobile Commerce (M-Commerce): Strategies, Technologies and Applications (MCSTA)

The subject of major topic today in e-business and e-commerce is wireless Internet technology. Wireless technology converts e-business into mobile business (M-business). M-Commerce can be defined as any transactions with a monetary value – either direct or indirect – that is conducted over a wireless telecommunication network. This will contribute to a significant growth in total global e-commerce revenue that is estimated to be \$6.9 trillion by 2004¹, of which more than 200 billion will be derived from M-Commerce². It allows one to connect to the Internet at any time from virtually any place and this can be used to conduct online transactions, make purchase, trade stocks and send e-mail. Wireless technology provides infrastructure to link portable computers to corporate distributed computing systems and other sources of information³. According to a recent survey report⁴, 80% of wireless devices will have Internet access and there will be over 1 billion users worldwide by 2004. There were approximately 200 million Internet users and 400 million mobile phone users in 1999. As remote Internet-enabled mobile phones become available, the base of e-commerce customers will grow⁵.

In the B2C market place, M-business will result in increased convenience for consumers. Wireless applications for sales and service professionals provide one of the largest opportunities for e-business. Wireless technology is creating many new opportunities in entertainment. Nokia, for example, working on applications that will allow playing video games on cell phone, competing against players worldwide. Handheld devices are becoming more cost-effective to own, and their use in healthcare environments is increasing. M-Commerce application has been more focused on communication perspectives. Hence, there is a need for further research to expand the application of M-Commerce to successfully managing supply chain management in both manufacturing and service industries. Mobile Internet services have some disadvantages such as slow and expensive connection lines, frequent disconnection of wireless connections and limited host performance⁶. This indicates further research on Mobile / Wireless technologies. M-Commerce started taking off slowly in the direction of becoming a reality, but yet to find enough applications and develop standards for this application of wireless technology based e-commerce.

For *Decision Support Systems (DSS)*, a special issue has been proposed considering the importance of M-Commerce in New Economy. A number of research articles have been published in the literature

¹ Forrester Research (2000), Global M-Commerce standard in development.

http://www.nua.ie/surveys/index.cgi?f+vs&art_id=905355728&rel=true, accessed 19 April 2000.

² S. Barnes, "The Mobile Commerce Value Chain: Analysis and Future Developments", *International Journal of Information Management*, Vol. 22, 2002, pp. 91-108.

³ A. Boukerche and S.K. Das, "Special issue on Wireless and Mobile Computing and Communications", *Journal of Parallel and Distributed Computing*, 60, 2000, pp. 349-352.

⁴ R. Gerber, "The Mobility Revolution", *The New York Times* 21 August 2000, pp. 1-2.

⁵ H. Simon, "Sinking Your Teeth Into M-Commerce", *Intelligent Enterprise* 18 August 2000, pp. 60-63.

⁶ T. Imielinski and B. Badrinath, *Mobile Wireless Computing Communications of the ACM*. No. 37, 1994.

on mobile computing and wireless technologies, but very limited research on the strategies and applications of M-Commerce. It is important to develop these areas while working on wireless technology advancements. Papers are sought for the special issue on strategies, technologies and applications of M-Commerce for the *DSS*. The main objective of the special issue is to discuss the context, architectures, case studies and analysis that provide insight into M-Commerce. Also, it has been aimed to bring strategists and technical professionals closer together with the objective of building M-Commerce systems and enhancing their applications. Strategic frameworks, conceptual and structural models, and case studies focusing on the design, justification, tools/enablers and implementation of M-Commerce are specially encouraged. Contributed papers may deal with, but are not limited to:

General (Strategic, Conceptual and Theoretical Frameworks):

- B2B M-Commerce
- B2C M-Commerce
- Alignment between business and M-Commerce models
- M-Commerce Drivers
- M-Inventory management, M-Distance education, M-Payment, M-Workplace, M-Auctions, and M-Telemedicine.

Applications:

- M-Commerce applications
- M-Commerce and supply chain management
- M-Commerce and virtual enterprise/organization
- Customer relationship management
- Intra-enterprise M-Commerce
- Wireless advertisement

Technologies:

- Technological and standards requirements for M-Commerce (Stability of wireless connection lines, awareness of changing bandwidth, security, extendibility, scalability)
- M-Commerce architecture
- Web infrastructure for M-Commerce
- M-Commerce and knowledge management
- M-Commerce and enterprise resource planning
- Securing E-Business in a wireless environment
- Location-specific wireless technologies

Implementation Issues:

- M-Commerce implementation issues
- Deployment of mobile decision support systems
- Deploying knowledge-based system on a mobile platform

Papers will be reviewed by at least two referees to determine the quality and contribution to the body of M-Commerce knowledge and its applications. Research surveys and application papers in the above areas are also welcome. Manuscripts should not exceed 25 double-spaced pages including figures and illustrations. Four copies of the manuscript, following the standard guidelines for the *Decision Support Systems* should be mailed to one of the guest editors by **December 31, 2003**:

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