# Chapter XVIII
# M–Commerce in the U.S. and China Retail Industry:
## Business Models, Critical Success Factors (CSFs), and Case Studies

**J. L. Zhang**
*Huazhong University of Science and Technology, China*

**J. Quan**
*Salisbury University, USA*

**Raymond Frost**
*Ohio University, USA*

**Sean McGann**
*Ohio University, USA*

**Michelle Ehlers**
*Ohio University, USA*

**Wayne Huang**
*Ohio University, USA*

## ABSTRACT

*The main objective of this chapter is to investigate the current trends and future endeavors of mobile commerce (m-commerce) in the retail industry in an effort to establish a greater understanding and awareness of the technology, problems, business models, applications, and critical success factors (CSFs) it provides to consumer subscribers and business users. A case study is used to illustrate CSFs for successfully implementing m-commerce in organizations.*

## INTRODUCTION

The retail segment is expected to stimulate the future growth of m-commerce with the potential to purchase goods and services, exchange financial transactions, and establish home delivery in a matter of minutes with the touch of a button and no geographical limitations. This unique business opportunity, with all of its accomplishments, potential, and uncertainties is the central focus of this assessment.

In the emerging wireless arena, it is predicted that everyday consumers will take advantage of the improving mobile technology and mobile e-commerce developments in the retail industry with transactions such as "buying books from Amazon while waiting in the doctors' office, trading stocks from the golf course or ordering CD's of songs on the radio while stewing in traffic" (Davidson, 2002). "Looking at the current expansion in wireless applications, increasing numbers of mobile device subscribers imply that vast opportunities of potential revenue come from the m-commerce retail industry" (Varshney & Vetter, 2001).

It is amazing that the hype in conducting virtual business stemmed from the turning point the Internet has brought to our lives. "First, we have the World Wide Web that brought us informative information, then the introduction of electronic commerce, where consumers have the convenience of staying home to shop and pay bills. Now, the wireless era has appeared with improved mobile technology and hence the increasing importance of mobile e-commerce, which is also known as m-commerce or wireless e-commerce" (Mennecke & Strader, 2001).

The advent of m-commerce and wireless Internet are thought to be the new wave in the communication industry, which holds a promising future for m-commerce in the retail industry. With the power in the palm of their hands, it is inevitable that mobile users will surpass the notion that mobile devices are solely for one-to-one communication and open doors to a new way of conducting retail business transactions. Figure 1 shows e-commerce/retail as one of the most popular wireless data applications.

This chapter is organized in a manner that will initially depict the credibility and relevance of the research provided throughout the paper, and will be followed by a background information section. The literature review is based on intense m-commerce and wireless company information that was prevalent in peer-reviewed journals, accredited articles, and esteemed conferences in the information technology community.

The background section includes a description of m-commerce and its functionality in the technology market. A framework is presented outlining m-commerce from both the users and

*Figure 1. Uptake of wireless data applications, 2000-2005 (in millions) (Source: allNetDevices (www. epaynews.com/statistics/mcommstats.html))*

| Applications | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| Messaging | 100 | 230 | 399 | 611 | 916 | 1268 |
| E-Commerce/Retail | 12 | 36 | 107 | 195 | 318 | 469 |
| Financial services | 50 | 123 | 225 | 357 | 529 | 798 |
| Intranet (corporate) | 5 | 20 | 49 | 81 | 129 | 206 |
| Internet, WAP | 4 | 20 | 85 | 183 | 344 | 614 |
| Entertainment | 61 | 143 | 246 | 372 | 554 | 775 |
| Navigation | 47 | 146 | 239 | 345 | 488 | 785 |

## Related Content

### Research on Recommendation Algorithm Based on Ranking Learning
Xiaoli Zhang (2019). *Journal of Electronic Commerce in Organizations (pp. 60-73).*
www.irma-international.org/article/research-on-recommendation-algorithm-based-on-ranking-learning/218255

### Online Privacy Policies: An Empirical Perspective on Self-Regulatory Practices
Noushin Ashrafiand Jean-Pierre Kuilboer (2005). *Journal of Electronic Commerce in Organizations (pp. 61-74).*
www.irma-international.org/article/online-privacy-policies/3466

### Comparison-Shopping Agents and Online Small Business
Yun Wan (2008). *Electronic Commerce: Concepts, Methodologies, Tools, and Applications (pp. 738-745).*
www.irma-international.org/chapter/comparison-shopping-agents-online-small/9505

### The Role of Managerial Attitudes in the Adoption of Technological Innovations: An Application to B2C E-Commerce
March L. Toand Eric W.T. Ngai (2008). *Electronic Commerce: Concepts, Methodologies, Tools, and Applications (pp. 1607-1617).*
www.irma-international.org/chapter/role-managerial-attitudes-adoption-technological/9572

### XML Schema Integration and E-Commerce
Kalpdrum Passi, Louise Lane, Sanjay Madriaand Mukesh Mohania (2008). *Electronic Commerce: Concepts, Methodologies, Tools, and Applications (pp. 286-291).*
www.irma-international.org/chapter/xml-schema-integration-commerce/9472