

# Chapter 42

## Mobile Commerce Technologies and Management

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### ABSTRACT

*This chapter reveals the prospect of mobile commerce (m-commerce); m-commerce and trust; m-commerce, privacy, and security issues; m-commerce adoption and technology acceptance model (TAM); and the significant perspectives on m-commerce. M-commerce is used for business transactions conducted by mobile phones for the promotional and financial activities using the wireless Internet connectivity. M-commerce is the important way to purchase the online items through online services. The main goal of m-commerce is to ensure that customers' shopping experience is well-suited to the smaller screen sizes that they can see on smartphones and tablets. Computer-mediated networks enable these transaction processes through electronic store searches and electronic point-of-sale capabilities. M-commerce brings the new possibility for businesses to sell and promote their products and services toward gaining improved productivity and business growth.*

### INTRODUCTION

Recently, the emergence of wireless and mobile networks has made possible the admission of electronic commerce (e-commerce) to mobile commerce (m-commerce), which is defined as the buying and selling of commodities, services, and information on the Internet through the utilization of mobile handheld devices (Lee, Hu, & Yeh, 2009). M-commerce technology is widely acknowledged as the next business format and its emergence has changed the business landscape (Faqih&Jaradat, 2015). M-commerce is of growing interest for vendors and customers and with that its importance within the combination of marketing and distributing channels (Möhlenbruch, Dölling, & Ritschel, 2010). The wide utilization of m-commerce includes the applications in banking, shopping, ticketing, entertainment, event management, and education (Gupta, Muttoo, & Pal, 2016).

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E-commerce is the business that is transacted by transferring data electronically, especially over the Internet. (Kasemsap, 2016a). Through e-commerce, the cost for the entrepreneurs to sell their products can be saved and diverted to another aspect of their business (Kasemsap, 2016b). Both m-commerce and e-commerce applications have been enhanced by social networking sites, such as Facebook, Twitter, and LinkedIn (Lin & Lu, 2015). Social commerce is recognized as the commerce activities mediated by social media (Curty & Zhang, 2011). In social commerce, people explore the commerce opportunities by engaging in a collaborative online environment (Curty & Zhang, 2011). Organizations should accommodate and energize mobile users and design changes to their social networking sites to facilitate interaction and information sharing (Heinrichs, Lim, & Lim, 2011). Secure, reliable, and economical modes of payment play a critical role in the successful implementation of m-commerce (Lu, Yang, Chau, & Cao, 2011).

Advances in wireless technology have increased the number of people using mobile phones and accelerated the rapid development of mobile service conducted with these devices (Wang, Lin, & Luarn, 2006). M-commerce emerges as the ubiquitous technology among the existing wireless payment mode (Arora, 2016). Smartphones penetrate business and consumer markets, and mobile applications have engendered an innovative market (Keith, Babb, Lowry, Furner, & Abdullat, 2015). In order to attract more m-commerce users, companies and managers need to carefully consider elements (e.g., subjective norm, cost, risk, and enjoyment) that relate more to individuals' roles from both social and consumer perspectives (Zhang, Zhu, & Liu, 2012).

This chapter is based on a literature review of m-commerce. The extensive literature of m-commerce provides a contribution to practitioners and researchers by revealing the applications and implications of m-commerce in order to maximize the business impact of m-commerce in the digital age.

## **BACKGROUND**

Development in the number of the Internet and telecommunications users since the late 1990s has provided companies with new ways to conduct business and exchange information through the development of the e-commerce market (Charbaji, Rebeiz, & Sidani, 2010). M-commerce is the new trend in business transactions (Hu, 2009) and the Internet-enabled smartphones become very popular these days (Hu, Zuo, Kaabouch, & Chen, 2010). Products are recommended to users based on their browsing behavior on the new mobile channel as well as the consumption behavior of heavy users of existing channels, such as catalogs and the Internet (Liu & Liou, 2011). Consumers use smartphones in their shopping experiences, such as browsing for product information and consulting friends before buying online (Ozuem & Mulloo, 2016). When shopping with a virtual catalog, customers can select products which meet their requirement concerning price range (Pierre, 2009).

Mobile devices, such as smartphones, tablets, and e-books readers, are gradually replacing traditional personal computers as the main method of accessing the Internet, organizing the widely deployed 3G/4G telecommunication technologies (Miao & Jayakar, 2016). Through m-commerce, users receive the large volumes of commercial messages (Wang, Hong, Xu, Zhang, & Ling, 2014). The evolution has triggered an increase in the use of mobile phones to conduct m-commerce and mobile shopping on the mobile web (Liou & Liu, 2012). M-commerce makes networks more productive by bringing together voice, data communication, and multimedia services (Wang, 2007). Regarding mobile shopping, the use context is

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