

## Chapter 4.20

# Personalization and Customer Satisfaction in Mobile Commerce

**HY Sonya Hsu**

*Southern Illinois University, USA*

**Songpol Kulviwat**

*Hofstra University, USA*

### INTRODUCTION

The advancement of wireless technology facilitates both consumers' activities and business transactions. With the rapid proliferation and widespread use of mobile devices, including mobile phones, personal digital assistants (PDAs), and handheld computers, mobile commerce or m-commerce is widely considered to be a driving force for the next generation of electronic commerce (e-commerce). According to Jupiter Research, the m-commerce industry is expected to be US\$22 billion globally by 2005. However, to date many promising technologies—especially m-commerce applications—have failed with the

notable exceptions of i-Mode service and short messaging service (SMS).

Popular “i-Mode”, produced by NTT DoCoMo of Japan, is a service that enables wireless Web browsing and e-mail from mobile phones. The “i-Mode service” has been the first successful commercial introduction of 3G (third-generation) mobile applications. It exceeded expectations and acquired over 30 million profitable users in a three-year period (Cohen, 2002).

One of the main goals of most operators might be building customer satisfaction and loyalty by providing one or more ‘killer apps’ to them. One way is to integrate customer relationship management (CRM) into the development of mobile

services' applications. Some firms have tried to target these applications to their customers on an individualized basis. "Personalization" may be the way to achieve that. Specifically, personalization can be regarded as the use of technology and user/customer information to match multimedia content with individual needs with the goal of producing user satisfaction. Personalization can be presented by an IP services framework that allows operators and subscribers through self-service provisioning approaches to control the types of service and applications they want and are willing to buy.

The purpose of this article is to develop a deeper understanding of personalization, with an emphasis on those factors that lead to customer satisfaction and/or delight. Specifically, this article presents factors contributing to consequences derived from using personalized applications and services in m-commerce.

## **BACKGROUND**

In their pilot study, Ho and Kwok (2003) applied the technology acceptance model (TAM) originated by Davis (1989) to their m-commerce study. They utilized four constructs to predict the service subscribers' intention to switch: number of generalized messages, perceived ease of use of general advertisements, perceived usefulness of personalized message, and privacy issues about personalized advertisements.

This article extends the thrust of Ho and Kwok's research to incorporate the effect of personalization on customers' satisfaction and delight that could contribute to CRM. Customers' satisfaction and delight are derived from expectancy theory, and they are discussed by Oliver (1981), Oliver, Rust, and Varki (1997), Spreng, Mackenzie, and Olshavsky (1996), and Verma (2003).

## **Expectancy: Satisfaction and Delight**

Expectancy theory is used to frame the evaluation of mobile services users. Oliver (1981) defined expectation to include two components: the probability of occurrence (e.g., the likelihood that a personalized cell service will be available) and an evaluation of the occurrence (e.g., the degree to which the personalization level is desirable or undesirable). The disconfirmation/confirmation paradigm of satisfaction is based on expectancy theory. It can be an emotional response to the comparison of the performance received and the products' normative standards. When the performance and expectations are at variance with each other, there is a discrepancy. This discrepancy could be either *positive* (when performance exceeds the expectations), which often causes satisfied state, or it could be *negative*, when performance is worse off than expected (Oliver, 1981). In other words, the consumer would be satisfied if perceptions match expectations or if confirmations are reached. Consistent with Spreng et al. (1996), satisfaction arises when consumers compare their perceptions of the performance of a good and/or service to both their desires and expectations. As such, satisfaction is a subjective judgment and may imply mere fulfillment.

Delight is a positively valence state reflecting high levels of consumption-based affect. The feeling of delight is experienced when the customer is pleasantly surprised in response to an experienced disconfirmation. It is the feeling state containing high levels of joy and surprise (Westbrook & Oliver, 1991). Further, Oliver et al. (1997) proposed and confirmed that delight is a function of surprising consumption, arousal, and positive effect or a function of surprisingly unexpected pleasure. They empirically confirmed that delight is a "mixture" of positive effect and arousal or surprise. It is associated with the level of arousal intensity. Moreover, it is a reaction experienced by the customer when he or she re-

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