Chapter 6.6
Consumers' Preferences and Attitudes Toward Mobile Office Use:
A Technology Trade–Off Research Agenda

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ABSTRACT

Consumer preferences, attitudes, and behavior concerning product choice can be of vital importance in the development process and implementation of innovative products or services. The mobile office (MO) is becoming achievable in the business-to-employee (B2E) arena as more work is completed outside the office and the fixed office boundaries extend well beyond the spectrum of the desktop. Potential MO providers (e.g., employers) will encounter adoption resistance as users experience uncertainty. This paper investigates the critical factors in the decision models of consumers when evaluating the acceptance and intention to use MO. It will provide research guidelines for MO designers and developers, IT/IS managers, and IS researchers.

BACKGROUND

Mobile business (m-business, also known as mobile commerce or m-commerce), an emerging extension of electronic business, has received considerable interest among IS researchers, developers, service providers, and end users. Varshney and Vetter (2002) anticipate that the next phase of e-business will be in the area of m-business with the widespread deployment of wireless technologies. Mobile services have penetrated many leading-edge personal markets such as mobile

SMS, mobile games, mobile handset icons, and ring tones. Wireless computing is now becoming widely deployed in the business arena as managers have appreciated the significant added strategic value of having instant access to business information that can enhance work productivity, efficiency, and decision-making, ultimately leading to competitive advantage for the firm. Businesses that cater to consumers' preferences and needs and that capitalize on expanding opportunities, which arise with new technologies, can sustain competitive advantages in today's fiercely competitive marketplace. Deployment of mobile technology infrastructure, along with mobile devices, enables employee mobility and mobility of IT functions. This is transforming businesses processes by enhancing communication, information access, and business transactions from any device anywhere and anytime. Performance benefits from wireless technology adoption are being realized in the business-to-employee (B2E) domain as corporations seek to achieve their business goals by growing their capabilities.

The rapid development of innovative mobile technologies, along with better integration with the existing network infrastructure, presents new challenges for the enterprise. Thanks to existing wireless technologies, such as 2G and 2.5/2.75G, which introduced GPRS (general packet radio service) and EDGE (enhanced data rates for global evolution), new business opportunities are emerging through new value-added services. 3G services are beginning to receive acceptance in such Asian countries as China, South Korea, and Japan. The technological trend and challenge that mobile users are facing is how to better integrate between wireless services, as 3G technologies are being increasingly revamped and further evolved. For the 3G-based CDMA evolutions, handsets will support CDMA, CDMA 1xRTT, and CDMA 1xEV-DO with three kinds of spectrum including 850/1, 900/2, and 100MHz. For the GSM evolution, handsets will support GSM, GPRS, EDGE, and WCDMA, operating in five bands (850/900/1 800/1 900/2 100MHz). In the near future, 4G will surface as a collection of services combining existing technologies, such as 3G and WiFi, with other types of wireless technologies including WiMAX and future evolutions of 3G. 4G will be featured by high usability anytime, anywhere, and with any technology; support for multimedia services at low transmission cost; personalization; and integrated services. As such, 4G will be less disruptive and more widely accepted if the promise is delivered upon. It is expected that 4G networks will be all-IP-based heterogeneous networks that allow users to switch any system at any time and anywhere. 4G systems will not only support data telecommunication services, but also multimedia services. And users in widely diverse locations will use the services, as users can use multiple services from any service provider at the same time. Though 4G mobile technologies may offer even greater opportunities, the gradual maturation and deployment of 3G technologies makes MO become an achievable goal as more work is completed outside the office and the fixed office boundaries extend well beyond the desktop.

There is considerable prior IS research about m-business and wireless technologies (Featherman & Pavlou, 2003; Kleijnen & Ruyter, 2003; Liang & Wei, 2004; Muthaiyah & Ehsan, 2004; Suoranta & Mattila, 2004; Varshney & Vetter, 2002; Zellweger, 1997). However, these research studies have mainly shed light on areas, such as technology acceptance and penetration, as well as technology trends and issues, leaving the domain of consumer preferences and attitudes towards the adoption of innovative products, specifically MO, relatively unexplored. More research is needed to explore the factors that constitute ultimate MO adoption and use, as well as the relative importance of these factors for further diffusion of innovation. In consideration of this objective, we investigate the critical factors in the decision models of consumers when evaluating the acceptance and intention to use MO. Further, we provide research guidelines for MO designers and developers, IT/IS managers, and IS researchers.