Chapter VI
A Proposed Framework for Mobile Services Adoption:
A Review of Existing Theories, Extensions, and Future Research Directions

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ABSTRACT

Mobile services are touted to create a significant spectrum of business opportunities. Acceptance of these services by users is, therefore, of paramount importance. Consequently, a deeper insight is required to better understand the underlying motivations leading users to adopting mobile services. Further, enhanced understanding would also help designing service improvements and appropriate adoption strategies. Most of the existing theoretical acceptance models available originate from organisational contexts. As mobile services bring additional functional dimensions, such as hedonic or experiential aspects, using extant models for predicting mobile services acceptance by individuals may be inadequate. The aim of this chapter is to explore and critically assess the use of existing acceptance theories in the light of evolving mobile services. Constructs affecting adoption behaviour are discussed and relevant extensions are made which culminate with a framework for mobile services adoption. Managerial implications are explored and future research directions are also identified.

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INTRODUCTION

Mobile technologies and services are touted to create a significant spectrum of business opportunities. According to the International Telecommunications Union (ITU) mobile phone penetration rates have increased significantly in many countries in Northern Europe (e.g., Sweden—98.05%, Denmark—88.72%, Norway—90.89%) (Knutsen, Constantiou, & Damsgaard, 2005). Similarly, Japan and Korea have consistently experienced very high diffusion rates of mobile devices and services (Carlsson, Hyvonen, Repo, & Walden, 2005; Funk, 2005). While experts predict that by 2010 online access via mobile channels is expected to reach 24% of homes in North America, 27% in Eastern Europe, and 33% in North-Western Europe (Hammond, 2001), the current penetration rate in many countries in the Western hemisphere and Asia-Pacific, including the U.S. and Australia lags behind the forerunners (Funk, 2005; Ishii, 2004; Massey, Khatri, & Ramesh, 2005). Given the difference between rapid growth rates in the adoption of mobile technologies and associated services in some countries and the relatively slow growth rates in others (Bina & Giaglis, 2005; Knutsen et al., 2005), it is important to identify the factors and predictors of further adoption and integrate them into a consolidated framework.

Mobile technology is enabled by the collective use of various communication infrastructure technologies and portable battery-powered devices. Examples of mobile devices include notebook computers, personal digital assistants (PDAs) and PocketPCs, mobile, "smart" and Web-enabled phones, and global positioning system (GPS) devices (Elliot & Phillips, 2004). There is a variety of communication infrastructure technologies that can enable these devices. Data networking technologies, such as GSM, GPRS, and 3G, are typically used for connecting mobile phones. WiFi (wireless fidelity) is used for connecting devices in a local area network (LAN). Mobile devices can be connected wirelessly to peripherals such as printers and headsets via the Bluetooth technology and virtual private networks (VPNs) enable secure access to private networks (Elliot & Phillips, 2004). Mobile devices are powered by mobile applications which deliver various services while enhancing flexibility, mobility, and efficiency for users within business and life domains. Despite the availability of technologically advanced mobile devices there is evidence that advanced mobile services which run on these have not been widely adopted (Carlsson et al., 2005; Khalifa & Cheng, 2002). The adoption of advanced mobile services is important for the mobile telecommunications industry because mobile services associated with technologically advanced devices constitute a massive source of potential revenue growth (Alahuhta, Ahola, & Hakala, 2005; Massey et al., 2005).

The adoption of advanced mobile technologies and services requires further research as most of the current technology acceptance models are based on research conducted in organisational contexts (Carlsson et al., 2005), and there has been only limited research from consumers' perspective (Lee, McGoldrick, Keeling, & Doherty, 2003). The features of mobile technologies and services, such as short message service (SMS), multimedia messaging service (MMS), e-mail, map, and location services, allow for single wireless devices, such as mobile phones, to be used seamlessly and pervasively across traditionally distinct spheres of life, such as work, home, or leisure, and with various levels of time commitment and self-ascribed roles (Dholakia & Dholakia, 2004). The interactions of these aspects are more intense than ever before (Knutsen et al., 2005). As mobile technologies and services add other functional dimensions, such as hedonic and/or experiential aspects (Kleijen, Wetzels, & de Ruyter, 2004; Mathwick, Malhotra, & Rigdon, 2001), applying extant theories outright to determine the acceptance and adoption by individual users may be questionable and inadequate (Knutsen et al., 2005).

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