



Adoption Factors of Mobile Services

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ABSTRACT

As more and more mobile services become available everyday, consumers are choosing different services based on their preferences. Exploring and understanding this phenomenon is critical. This paper presents a framework for defining the adoption factors of mobile services. The framework builds upon current approaches to explain adoption factors. A survey instrument was utilized for data collection. Two different types of service were compared through the study. The findings were confirming the literature for an already adopted service and indicating that usefulness and attitude are direct factors influencing consumer satisfaction. On the other hand, usefulness and external influence were found to be direct; and personalization, image, content, mobility, enjoyment as indirect determinants of consumer's attitude towards using new mobile services.

Keywords: *adoption; content services; information services; information technology; mobile services; short message services; technology diffusion*

INTRODUCTION

Mobile technologies are enabling new mobile applications, which has huge influence on consumers' usage patterns and have become a significant differentiator across the operators. Cellular handsets are not used just for voice communication anymore (Fich, R. B., & Benbunan, A., 2007). Non-voice now represents between 15% and 29% of operator service revenue, depending on the market. Of that, mobile Internet downloads and data now contribute 3% to 17% of total service revenue (Cellular-News,

2007). The future of the mobile telephone is expected to rely on mobile services (Carlsson *et al.*, 2006) due to saturation in voice. These have led to new opportunities in innovation of differentiating services. Mobile services have become new revenue sources for operators. To respond declining average revenue per user (ARPU) in telecommunication markets, mobile data services are seen as remediation (Knutsen *et al.*, 2005). Bouwman *et al.* (2006) also underlines the importance of mobile services in that the future of the telecommunication sector will be depending on mobile internet services

development in addition to voice services. The adoption of new mobile services disclaims this proposition as it has been much slower than expected, especially in Europe (Carlsson *et al.*, 2006). However, basic services evolved rapidly. A good example is SMS (Short Message Service), which became surprisingly popular after 1995 as users began sending messages to each other. Initially, it was introduced as an information service from operators to users. However, SMS became a greatly profitable business only when it became possible to send messages (P2P Messaging), which changed the communication world for users and contributed to creating a European mobile culture (Kaseniemi, 2003). Messaging services allow either the exchange of text messages or multimedia messages. However, the success of SMS cannot be compared with MMS, which does not have a huge influence on total messaging market revenue. This may be the result of acquired habits, which have a strong influence on the choice of messaging (Bouwman *et al.*, 2006). The transition from text to multimedia is an important change. Rau *et al.* (2006) say that this transition phase is similar to the transition from DOS to Windows in PCs.

Although some mobile services such as SMS, ring tones, icons and logos have either been adopted on a large scale or have at least been tried by a majority of users (Carlsson *et al.*, 2005), more advanced services have not yet found their way into the daily lives of consumers. This presents a research opportunity of exploring how and why people adopt or do not adopt mobile services (Carlsson *et al.*, 2006). Gilbert *et al.* (2005) also tried to understand Mobile Data Services (MDS) adoption. According to Gilbert's study, decisions to use new services are innovation behaviors that change according to the needs and perceptions of the individual adopters. It also suggests to segment markets for MDS by combining demographic and psychographic data (Gilbert *et al.*, 2005).

Hsu *et al.* (2006) explored factors impacting the adoption MMS (Multimedia Message Service). MMS allows multimedia communication with entertainment effects (picture exchange,

sound clips, voice recording or animated pictures) (Hsu *et al.*, 2006). In the study, it was seen that there is a significant difference between potential adopters and users. Apart from these studies many other causes have been proposed for adoption factors. While studying on mobile payment service adoption, Mallat (2007) also identified several barriers to adoption, including premium pricing, complexity, a lack of critical mass, and perceived risks.

The objective of this paper is to understand and determine the adoption factors and to measure their weight of influence. The study seeks to find adoption factors by focusing on SMS and Pocket Info&Enjoy services separately. Questions are categorized according to this separation. Pocket Info&Enjoy service is explained in the survey as follows: "When you query the closest hospital around you using Pocket Info&Enjoy, the service provides the phone number, address information, distance information and the taxi fee to the hospital as well", or "When you ask phone number info of the closest Turkish Cuisine, the service provides the phone number info together with special meal information." One of the main characteristics of the Pocket Info&Enjoy service is that there is an interaction between the user and service provider. This service is similar to location-based information/directory service. However, there is no automation in the Pocket Info&Enjoy service. Location-based information/directory services automatically inform customers of the location of the nearest restaurants, facilities, parking areas, etc. More specifically, Location Based Services (LBS) automatically enable businesses to provide timely personalized services that are location-specific (Unni *et al.*, 2005). The reasons for a low level of demand and a slow diffusion may be user resistance, reliability concerns, price, social effects, or technical problems. On the other hand, some of the enablers of mobile services -- improvements in network bandwidth and quality, ease of use, device or handset improvements, content richness or customer experiences -- may lead to development of new mobile services.

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