Information & Management 45 (2008) 359–364

Contents lists available at ScienceDirect

Information & Management

journal homepage: www.elsevier.com/locate/im

An assessment of advanced mobile services acceptance: Contributions from TAM and diffusion theory models

Carolina López-Nicolás [a,*], Francisco J. Molina-Castillo [a], Harry Bouwman [b]

[a] University of Murcia, Spain
[b] Delft University of Technology, The Netherlands

ARTICLE INFO

Article history:
Received 1 August 2007
Received in revised form 16 April 2008
Accepted 1 May 2008
Available online 13 June 2008

Keywords:
Advanced mobile services
TAM model
Diffusion of innovation theory
Social influences
Perceived benefits
The Netherlands

ABSTRACT

Today, in addition to traditional mobile services, there are new ones already being used, thanks to the advances in 3G-related technologies. Our work contributed to the emerging body of research by integrating TAM and Diffusion Theory. Based on a sample of 542 Dutch consumers, we found that traditional antecedents of behavioral intention, ease of use and perceived usefulness, can be linked to diffusion-related variables, such as social influence and perceived benefits (flexibility and status).

1. Introduction

In addition to traditional services, mobile devices can now be used to provide advanced mobile services, including banking, commerce, chat room, gaming, parking services, etc. Many advanced services are not new but were based on premium SMS, WAP, GPRS, UMTS and HSPDA protocols, offered individually or in portals such as iMode, Vodafone Live!, T-zones, and Orange World. Here we define advanced mobile services as data services that have the look and feel of Internet pages and are accessible via mobile or handheld devices, and operating at 2.5 and 3G+ mobile telecommunication networks.

Advanced mobile services are either offered by telecom providers or by specific services providers who either use the telecom providers' portals, or offer their services direct to the customer. Providers therefore find it hard to distinguish themselves on a basis of price and service quality. Switching providers is common, with many services, like banking or tourist information, offered by the same service providers via all available mobile operators portals. Switching costs are low, and often subsidized by telecom providers, who may offer advanced handsets in combination with new subscriptions.

The Netherlands are characterized by high levels of awareness and penetration of mobile phones and services. Advanced mobile services have become widely available. GSM was introduced in 1989, GPRS in 2000, and UMTS networks in 2004. In 2006, experiments began with High Speed Downlink Packet Access (HSDPA). Coverage of UMTS and HSDPA networks rose to 90% [10]. Penetration rate of mobile handsets reached 109% in 2007, while 8% of the population subscribed to 3G services (WCDMA) [22]. Penetration and use of devices like PDA's and Blackberry's, as well as laptops is high. Twenty-four percent of all Dutch households access the Internet via mobile phones and/or palmtops, with an additional 14% via laptops when not at home or work. Compared to other countries, tariffs for mobile services are relatively low. Subscriptions and pre-paid arrangements are normally paid by the users, with only 6% paid by employers. According to a recent survey commissioned by the government, users are convinced that they are able to use all the functionalities of advanced mobile phones and mobile Internet services [21].

Although the conditions for the use of advanced mobile services appear to be favorable, market analysis indicates that, although consumers are aware of advanced services, they are reluctant to use their mobile phones to access them. Accordingly, service providers are looking for ways to show consumers the value advanced mobile services are offering. Practitioners and academics try to predict the conditions for usage of mobile services.

* Corresponding author at: Departamento de Organización de Empresas y Finanzas, Facultad de Economía y Empresa, Universidad de Murcia, Campus de Espinardo, 30100 Espinardo-Murcia, Spain. Tel.: +34 968 363762; fax: +34 968 367537.
E-mail address: carlopez@um.es (C. López-Nicolás).

0378-7206/$ – see front matter © 2008 Elsevier B.V. All rights reserved.
doi:10.1016/j.im.2008.05.001