

Chapter 4.13

Adoption of Mobile E-Health Service: A Professional Medical SMS News Service in Finland

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ABSTRACT

This study investigates physicians' willingness to adopt a professional medical SMS news service in the Finnish healthcare sector. A concise survey using SMS mobile technology was conducted on March 5, 2003. Two hundred and fifty-nine out of 685 responded within 24 hours, and 90% of these answers were received within 6 hours after the survey was sent out. The response rate

was 38%. Findings from this simple SMS survey showed that physicians had positive perceptions of the SMS news service. Nearly 60% of the respondents have used it. Some of the answers included spontaneous feedback about the SMS news service, which revealed valuable comments and suggestions regarding further improvements to it. The SMS survey as a new data collection technique needs academic attention. Implications and future research are briefly discussed.

INTRODUCTION

Mobile commerce (m-commerce) has been an important focus of research in recent years. Generally, m-commerce is defined as the extension of electronic commerce (e-commerce) from wired to wireless computers and telecommunications, and from fixed locations to any time, anywhere, and anyone (Keen & Mackintosh, 2001), that is, the use of mobile technologies and devices to provide, sell, and buy convenient, personalized, and location-based services. Many healthcare organizations are turning to m-commerce or wireless solutions in order to achieve better, more effective, and efficient practice management (Wickramasinghe & Misra, 2004). A number of companies are extending their Internet services for physicians for use with personal digital assistants (PDAs) or other mobile devices. For example, the use of PDAs among doctors is rising, and had reached 27% by 2001 in the United States (Harris Interactive, 2001). In Europe the leaders, in terms of the percentage of general practitioners who used PDAs in their practices, were The Netherlands (31%), the United Kingdom (18%), Spain (17%), France (11%), and Germany (10%) (Harris Interactive, 2002). Mobile e-health services might offer an answer to healthcare challenges in the 21st century (Goldberg & Wickramasinghe, 2003).

Text-based technology or short messaging service (SMS) is one of the underlying technology platforms for m-commerce. Compared with wireless Web-based technologies, that is WAP, another m-commerce platform, SMS has a simple user interface and is supported by most mobile phones. Recent years have seen the adoption of SMS worldwide in many sectors of commerce, for example, news, weather forecasting, retail, entertainment, and so forth.

The rapid diffusion of SMS has also inspired some applications in the healthcare industry, for example, a professional medical SMS news service. Medical knowledge is changing constantly.

It is not easy for physicians to keep their knowledge and information up to date to help in their patient care and patient management efficiently on the one hand, and to maintain the level of their professional competence on the other (Jousimaa, 2001). A professional medical SMS news service might help physicians keep their knowledge up to date and provide information about recent medical development trends and new discoveries. The aim of this chapter is to investigate how ready physicians are to adopt an available professional medical SMS news service that is currently implemented in the Finnish healthcare sector. First, we present the theoretical background underlying the study. In the following, we present the study context and the survey administration. The method we used for data collection is described in Section 4. In section 5, the results are reported. Discussions and conclusions are at the end.

PHYSICIANS' ADOPTION OF TECHNOLOGY

Users' perceptions of and intentions to adopt an information system (IS) and the rate of diffusion and penetration of technology within and across organizations are two important foci in IS research (e.g., Straub, Limayem, & Karahanna-Evaristo, 1995). They are understood to constitute an essential aspect, property or, value of information technology (Orlikowski & Iacono, 2001). It is generally accepted that the usage of information systems at work could increase employees' productivity in their work, and improve individual and organization performance. System usage is an important dimension for measuring IS success (DeLone & McLean, 1992, 2003). In particular, physicians' adoption of IS in healthcare is aimed to improve the health quality of human beings. In the past few decades, the conclusions of many studies based on different theoretical approaches and research methods have proved and confirmed

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