An Empirical Analysis of the Effect of Smartphone Use on Addiction: Usage and Gratification approach

Seong Wook Chae*  Kun Chang Lee**

*Principal Researcher, Office of Planning and Management, National Information Society Agency, Seoul 100-775, Republic of Korea
E-mail: seongwookchae@gmail.com

** Professor, SKK Business School and Department of Interaction Science, Sungkyunkwan University, Seoul 110-745, Republic of Korea
E-mail: kunchunglee@gmail.com

Abstract

The smartphone could be a threat to users in terms of addiction because it functions as a mobile phone as well as a device to access the Internet. As the smartphone becomes more popular, the threat of smartphone addiction is growing. The aim of this paper is to investigate smartphone use and addiction. For this purpose, we designed a research model employing the uses and gratification theory, focusing on two rewards in the addictive process, excitement seeking and tension reduction. To show the validity of our proposed research model, an empirical analysis was performed using PLS with 183 valid questionnaires from smartphone users. We found that smartphone users are more likely to show active addiction, while lonely smartphone users tend to show passive addiction. In addition, the results suggest that perceived stress negatively moderates the relationship between loneliness and passive addiction.

Key Words: Smartphone, Addiction, Stress, Enjoyment, Loneliness

1. Introduction

With continued advancement in information technology, the adoption of smartphones and mobile data access are accelerating at a rapid pace. The total number of smartphone subscribers increased 72% quarter-over-quarter, growing from 15 million subscribers in Q2 2008 to 26 million in Q2 2009. From business professionals to students, it seems that everyone is adopting the smartphone, and as of Q2 2009, 16.9% of all cell phones in use worldwide were smartphones, up from 10.3% in Q2 2008 [1]. A smartphone is a mobile phone that offers more advanced computing ability and connectivity than a contemporary feature phone. It provides the traditional features of a cell phone, including calling features and text messaging, but adds the ability to access the Internet via third generation (3G) high-speed wireless data networks, run mobile applications, and access a variety of rich multimedia content such as video and audio.

The rapid development of these new forms of information technology has led to the introduction of new concepts of addiction. The concept of early addiction has been limited to