Chapter 4.13
South Korea:
Vision of a Ubiquitous Network World

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ABSTRACT

Koreans envision a world in which anyone can access information and the tools to explore it anytime, anywhere. Korea has been one of the leaders in the mobile industry and this chapter explores the past, present and future of mobile technology and markets in Korea. Starting with background and a brief overview of the current situation, this chapter uses the CLIP framework to describe mobile services in Korea. The chapter concludes with a brief discussion of challenges and future strategies.

INTRODUCTION: VISION OF A UBIQUITOUS NETWORK SOCIETY

Koreans are dreaming of and reaching for a ubiquitous network society, or an environment where information and the tools to explore it are "always" available to "everyone" (Reynolds, Kelly, & Jeong, 2005). Along with advancing technology, Koreans' enthusiasm and efforts have brought Korea closer to this vision.

High-speed Internet service has become increasingly popular since May 1998, when it was first introduced to Korea (Jin, 2003). In that year, it was not widely used due to the high monthly fee of US$77. However, by 2001, 13.9 percent of Korea's total population subscribed to high-speed Internet, and by 2002, that number had increased to 19.2 percent, the highest among the member countries of the Organization for Economic Cooperation and Development (OECD) (OECD, 2002). By 2004, more than 75 percent of Korean households were connected to the Internet via high-speed lines, the highest broadband penetration rate by a large margin around the world (Reynolds, Kelly, & Jeong, 2005). In 2005, Korea maintains some of

the cheapest and fastest residential connections at the lowest prices in the world (Jin, 2003; Reynolds, Kelly, & Jeong, 2005).

In addition to leading the world in fixed-line Internet services, Korea has also emerged as a world *mobile* leader (Reynolds, Kelly, & Jeong, 2005). Relative to broadband Internet, mobile service got off to a slow start in 1984 due to the high expectations of customers — low cost and high quality (Jin, 2003). By 1999, however, mobile phone subscribers outnumbered fixed-line phone subscribers (Park, 2000). Korea became one of the first countries in the world to offer IMT-2000 (3G) services and CDMA services (Reynolds, Kelly, & Jeong, 2005). Moreover, Korea's mobile phone manufacturers, Samsung and LG, had the world's second and fifth largest market share in the third quarter of 2004, respectively (Goasduff, 2004).

In this chapter, the past, present and future of mobile technology and markets in Korea will be explored. We will first provide detailed background regarding broadband Internet and mobile markets in Korea. Next, we will describe some successful applications of m-commerce in Korea. After that, we will outline the Korean m-commerce sectors using the CLIP framework. Lastly, we will suggest some key lessons regarding technology, policy and stakeholder strategy.

HISTORICAL OVERVIEW

The Korean mobile market is well known as one of the most advanced in the world and boasts nearly 100 percent coverage across the peninsula. In this section, we will address the evolution of Korean mobile technology and its dynamic market.

According to Reynolds, Kelly, and Jeong (2005), mobile technology in Korea has passed through three distinct phases:

1. **Introduction of analog cellular service in Korea (1984-1994):** In March 1984, the analog mobile phone was introduced and mobile telecommunication services began (Park, 2000). Up until 1991, mobile phone subscribers were no more than 0.37 percent of the total population. The mobile phone was perceived as a luxury product, available only to high-class customers (Lee, 2003).
2. **Strong CDMA era (1995-2000):** Digital CDMA voice services (IS-95A) were launched in 1996 (Park, 2000). By October 2000, Korea had gone through IS-95B (1999) to CDMA2000 1x, which was launched that month (Reynolds, Kelly, & Jeong, 2005). Along with this advance of technology, the mobile phone market expanded noticeably (Lee, 2003), and the penetration rate grew rapidly to more than 50 percent.
3. **Focus on mobile data applications (2001 to date):** As the markets for phones and basic service have become saturated and subscription rates have slowed, focus has shifted to the development of technology that can enable mobile data applications (Reynolds, Kelly, & Jeong, 2005). Since 2002, Koreans have been enjoying third generation, IMT-2000, which has been the cornerstone of the broadband telecommunication and high-speed network (Park, 2000). In May 2002, a nationwide CDMA 2000 1x network was completed and EV-DO mobile data services were launched, and in 2004, services in the IMT-2000 2.1 GHz band and CDMA2000 1x EV-DV services were launched (Park, 2000; Reynolds, Kelly, & Jeong, 2005). WiBro services have been licensed and are ready to commercialize (Reynolds, Kelly, & Jeong, 2005).

As these technologies have evolved, the mobile market has expanded accordingly. Both the number of subscribers and the sales volumes in the mobile market have been growing. Figure 1 shows the trend in: (1) the number of mobile phone subscribers, (2) the number of mobile Internet subscribers and (3) the percentage of mobile