Chapter 6.11
Digital Multimedia Broadcasting (DMB) in Korea:
Convergence and its Regulatory Implications

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ABSTRACT

The launch of portable Internet, alongside mobile Internet technology and cellular technology, is a new milestone, converging wireless with wired technology. Along with these new technologies, a new telecommunication service has been introduced and has received much attention from the Korean public. This is the Digital Multimedia Broadcasting (DMB) service. DMB is a digital multimedia service combining telecommunications with broadcasting technologies. DMB enables users to watch various multimedia contents on their phone screens while they are on the move. Since DMB services in Korea are the first in the world, the Korean Government has much interest in DMB services. However, the repeated failures in establishing a regulatory framework for DMB and ill-defined roles of players in the DMB industry interfere the diffusion of DMB in the Korean market. As the convergence of broadcasting and telecommunications makes progress, proper modifications of existing regulatory frameworks should be made in order to guarantee success of DMB service in Korea. This chapter reviews DMB technology, its business model, its market structure, and its policy. In particular, it explores business opportunities around DMB services and identifies major issues that must be solved to launch DMB services successfully.

INTRODUCTION

In Korea, the number of Internet users has been growing rapidly, nearly doubling each year since

1997. What is even more interesting is that most Internet users subscribe to high-speed Internet service. In 2001, the number of subscribers per 100 people was 21.8 people in Korea (about 40% of all Internet users), 4.5 people in the United States (about 9% of Internet users), and 2.2 people in Japan (5% of Internet users). This dramatic expansion of the high-speed Internet service has even received worldwide attention. The International Telecommunication Union (ITU) and the Organisation for Economic Co-operation and Development (OECD) announced that Korea ranked first in the diffusion of high-speed Internet service. Ninety-seven percent of all households in Korea have some way of connecting to the Internet and 60% of all households in Korea access the high-speed Internet.

In Korea, the phenomenal growth of ownership of cellular phones was not a government initiative, rather a private industry-driven one. Due to the highly efficient electronics industry which was able to manufacture low-cost/high-capacity cellular phones, the Korean public quickly adopted the use of cellular phones in their everyday lives. According to statistics, almost 90% of all adults now own a cellular phone, which makes Korea the country with highest ownership of cellular phones in the world. Recently, the use of mobile Internet through various handsets, such as cellular phones and personal digital assistants (PDAs), has become popular.

Now, many Korean users have utilized the Internet for personal communications (e.g., e-mail) and information searching. As the user population of the high-speed Internet service is growing quickly in Korea, many users are more inclined to use the Internet for multimedia entertainment, such as games, movies, and music. The high-speed Internet service shifts its main usage to entertainment. In terms of mobile Internet, its main usage is also concentrated on entertainment, such as ring/avatar downloads.

The launch of portable Internet, alongside mobile Internet technology and cellular technol-ogy, is a new milestone, converging wireless with wired technology. Along with these new technologies, a new telecommunication service has been introduced and has received much attention from the Korean public. This is the Digital Multimedia Broadcasting (DMB) service. DMB is a digital multimedia service combining telecommunications with broadcasting technologies. DMB enables users to watch various multimedia contents on their phone screens while they are on the move. By combining telecommunication and broadcasting technologies, DMB adds tremendous value to broadcasting. Traditionally, broadcasting technology is used to transmit information to many unspecified persons (one-to-many, one-way communication), and it is very difficult to watch TV while on the move. Whereas telecommunication technology allows individual communications (one-to-one, two-way communication) and it is easy to provide personalized services.

DMB, selected as one of the 10 new-growth engine sectors—in other words, one of the 10 most promising industries to propel Korea toward its goal of passing the $20,000 mark in GDP per capita—opens up a vast new horizon for broadcasting, making the most of strengths and specificities of different media, including terrestrial, cable, and satellite broadcasts. Economic and social ripple effects to be expected from DMB also are certainly substantial.

The question remains, however, as to whether DMB can indeed stake out its own market in Korea, as CDMA or the high-speed Internet has done in the past. The answers to this question are so far mutually contradictory even among experts. Figure 1 illustrates the respective positions of different types of telecommunication services in Korea, from which the place of DMB can be roughly deduced. More optimistic onlookers hold the view that DMB, by overcoming the one-way services thus far provided by the mobile Internet or the HSDPA-based mobile Internet, and by wooing over customers with more competitive prices, will be able to create its own niche. The

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