15 Consumer Preference for New Wireless Data Services

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Introduction

The Korean telecommunications services market has recently experienced an unprecedented growth in the wire-line broadband Internet access and mobile telephony markets. At 2004, 11 million households had broadband Internet access, while mobile telephony subscription reached 36 million—the corresponding penetration rates are 73% and 75%, respectively. However, wire-line, wireless voice, and broadband Internet access market growth have reached a plateau as those markets near saturation (see Fig. 15.1). Wireless Internet services, in particular public wireless local area network (WLAN) and 2.5G/3G services were introduced to stimulate this flagging telecommunications market demand. While these services offer access to the Internet, multimedia, banking and online gaming services, only minimal growth in market demand has resulted. In investigating factors inhibiting market growth several customer complaint surveys reveal that WLAN is not of a satisfactory quality due to technical vulnerability to interference and limited coverage. Further, 2.5G/3G prices are high for the low-speed transmission.

Fig. 15.1. Korean Telecommunications Subscription by Service. Source: MIC
In spite of service provider pre-market launch testing for best product design the new mobile Internet service market is yet to reach a minimum viable size (Kim 2003; Kim and Lee 2004). A possible reason for the market not attaining a high penetration may be due to service providers’ lack of ability to understand consumer preference—especially in the early stages of market evolution.

From a consumer’s perspective it is difficult to reveal ‘true’ preference for an experience good prior to consumption of the good. In particular, a consumer finds the task of understanding service concepts difficult without having experience gained through evaluating alternative technical service specifications. Without this consumption experience the revelation of consumers’ preference for new Internet services is likely to be confounded. Considering WLAN, e.g., based on subscription intention questions early market surveys estimated a potential 5 to 10 million subscribers—however the current realized base is at most 500,000 subscribers. Further, a clear understanding of customer potential demand for service attributes helps managers improve product design and strategically position services. That is, companies are better able to respond to customers’ needs by improving transmission speed, mobility and coverage. Conversely, when it is not technologically feasible to reconfigure service features—due to service deployment schedule or expenditure limitations—then the strategic repositioning of the service is considered without technological modification to service attributes.

To obtain a better appreciation of consumer attitudes this study develops a hierarchical decision structure of consumer choice for emerging mobile services by breaking down the choice problem into a hierarchical decision structure for interrelated service attributes, e.g., transmission speed, mobility, coverage and price. The analytic hierarchy process (AHP) allows managers to analyze consumers’ preference for service attributes to determine the relative attractiveness of alternative new mobile services. Additionally, implications of the results are discussed, especially for the successful implementation of portable Internet service (PIS). This chapter is organized as follows. In the next section, a brief description of emerging mobile services in the Korean telecommunications market is sketched. A research model is then developed using the AHP. Next the results of the analysis are discussed. Finally, implications of the study and areas for further research are presented in the final section.

**Emerging Mobile Data Services in Korea**

Figure 15.2 displays mobile data and broadcasting services including: WLAN, terrestrial and satellite digital multimedia broadcasting (DMB), PIS and high-speed downlink packet access (HSDPA), in terms of their relative mobility and speed. WLAN offers very high-speed broadband Internet access in hot spots, but due to limited service coverage and poor quality the service is not widely deployed. Currently, Korea Telecom and Hanaro Telecom are providing 10Mbps Internet access service via 2.4GHz radio frequency and are expected to launch 54Mbps service via 5GHz.