

Chapter XVI

Mobile Number Portability in an Asymmetric Telecommunications Market: Korea Case

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ABSTRACT

This study relies on a customer demand-based view to examine how mobile number portability affects competition in the Korean mobile telecommunications market. Using a contingent valuation method, we investigate 1,161 subscribers' willingness to pay for mobile number portability. The findings show that there is a difference in demand for number portability among the subscribers to service providers. Unlike previous studies on number portability, the introduction of number portability to the market in which the brand effect of a dominant player exists would have an adverse effect on competition in the mobile telecommunications market. The study also shows that if the market structure is asymmetric with a strong, dominant player, some additional regulatory mechanisms are needed for the facilitation and the implementation of number portability in order to reduce the side effect of it. Implications and avenues for future research are discussed in the conclusion section of the chapter.

INTRODUCTION

The portability of mobile telephone numbers is currently one of the major issues of the mobile telecommunications market in several countries including the United States, Korea, Australia, and several EU countries. According to the Telecommunications Act of 1996, number portability is defined as the ability of users of telecommunications services at the same location to retain existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another. In other words, number portability enables a subscriber to keep the same number identification while changing their service provider.¹

Number portability became popular with the advent of mobile telephones, since in most countries different mobile operators are provided with different area codes and, without portability, changing one's operator would require changing one's number. Some operators, especially incumbent operators with large existing subscriber bases, have argued against portability on the grounds that providing this service incurs considerable overhead, while others argue that it prevents lock-in and allows them to compete fairly on price and service. Due to this conflict of interest, number portability is usually mandated for all operators by telecommunications regulatory authorities.

Singapore was the first country in the world to introduce number portability to the mobile telecommunication market, doing so in 1997. In the United States, the FCC has mandated *Wireless Local Number Portability* starting November 24, 2003. On November 10, 2003, the FCC additionally ruled that number portability applies to landline numbers moving to mobile telephones as well.

There have been two conflicting opinions regarding this particular issue. The first is a matter of when to introduce number portability, and the second is how to implement it. It is well known

that number portability reduces switching costs for customers, and makes it easier for new service providers competing for customers by allowing them to retain their numbers when switching mobile telecommunications service providers (Gans, King, & Woodbridge, 2001; Reinke, 1998).

The Korean telecommunications service market is still considered to be relatively non-competitive, although the market has been changing since the introduction of competition during the 1990s. In the case of the mobile telecommunications service market, it is inevitable that the number of operators was limited due to the scarcity of spectra. Therefore, the Korean Ministry of Information and Communication (KMIC) decided to mandate mobile number portability as a new requirement imposed on the mobile service provider. This requirement will remove one of the impediments to competition in the mobile telecommunications market. The provision of mobile number portability is considered an essential factor in the promotion of competition in the telecommunications industry (Reinke, 1998).

Telecommunications regulators face a number of difficult choices when trying to apply and implement number portability to the telecommunications service. Those choices include basic concerns pertaining to when and how it should be implemented. There have been few studies on number portability (Aoki & Small, 1991; Gans et al., 2001; Reinke, 1998). Most of these studies have concentrated on the benefits that occur with number portability and how to implement number portability to maximize effectiveness without strong market-oriented empirical data. To our knowledge, this is one of the pioneer studies focusing on customer demand for number portability as a basis for a cost-benefit analysis using empirical data collected from actual mobile service providers. In addition, this study analyzes the demand estimation of number portability using the contingent valuation method, one of the most well established and widely used methods for estimating the benefits or cost associated with

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