Mobile Number Portability

Pros and Cons

Suppose you are a longtime BSNL subscriber, now considering a switch to Vodafone Essar because of the cool new iPhone. Until recently, switching from one mobile operator to another would have required you to surrender your existing phone number and obtain a new one from your new service provider. This step imposes ‘switching costs’ of informing your social contacts, changing business cards and stationery, possibly missing important calls, and so on. Your contacts might also incur costs of missed connections, and of modifying their contact databases and other automated systems. These switching costs lock you with your mobile operator and often allow them to charge you relatively high prices.

The Mobile Number Portability (MNP) policy implemented nationwide on January 20, 2011, promises to change the nature of competition in the Indian mobile telephony market. The regulation enables subscribers to maintain their existing phone number when switching inside a licensed circle (usually a state boundary), and requires the existing operator (the ‘Donor’) to cooperate with the receiving operator in this switching process. Since its debut in Singapore in 1997, MNP has been implemented in over 50 countries worldwide (see chart). Its emergence in India is an important step in the maturation of this huge and rapidly expanding market. The MNP is being implemented with a host of customer-friendly features, including a low fee (Rs 19 or less), designating the Receiving Operator as the subscriber’s point-of-contact, and a very short service disruption (less than 2 hours, at night).

How might MNP impact the purchase behavior of mobile subscribers and the product and marketing strategies of mobile operators? Generally, when customers switch from one mobile operator to another, they experience a disutility from losing their relationship-specific investments made with the first brand. The result is that customers tend to stick with their existing operator even when a competitor offers a ‘better deal’. The direct effect of MNP is to cut customers’ switching costs by eliminating the need to change phone numbers, giving them greater freedom of choice at affordable prices.

The economic theory of switching costs suggests that MNP would allow customers to switch providers more frequently. A much-quoted recent report by Ernst & Young predicts that MNP would increase mobile operators’ churn rates (the percentage of existing customers who discontinue service) to 6-7% per month (from about 4% currently). Mobile operators fear increased churn because they obtain higher lifetime revenue from customers who stick around for a long time, and this enables them to recover the cost of acquiring the customer. This will cause operators to compete harder to retain existing subscribers, both by lowering prices and by innovating and offering better services enabled by newer technology. All of these factors increase market efficiency and consumer welfare, and contribute to in-
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The vast majority of Indian mobile subscribers are on prepaid plans, but evidence from other countries indicate that mobile operators earn higher average revenue per user (ARPU) from contract customers. Therefore, operators are likely to make contracts more attractive and prevalent in Indian market, including perhaps by offering handset subsidies linked to 1-2 year contract periods. Besides defending their own turf, operators will also try to poach their rivals’ customers, with aggressive activities such as Vodafone’s “Everybody’s welcome” and IDEA’s “Switch to IDEA” marketing campaigns.

Due to the strategic and operational responses by mobile operators, churn rates may not in fact increase as much as many observers predict. Moreover, while MNP does reduce switching costs, it does not eliminate them. Customers continue to incur switching costs from remaining minutes on a prepaid plan, remaining months in their contract period, and the need to repeat prior action on features such as the Do Not Call registry. That is why despite the common belief that MNP would catalyze substantial customer switching, it has not led to a significant increase in customer churn rate in many markets. For example, it was expected that 30 million subscribers would switch during the first year of MNP in the US (2003-04). However, it turned out that there were only 7.8 million switchers according to FCC statistics compiled in 2005. Similarly, churn rates in the Canadian market increased noticeably only for two of the four main operators, Bell Mobility and Telus Mobility (see chart).

MNP can also, counter to intuition, cause an increase in average tariffs. Post-MNP, phone number prefixes will no longer accurately identify the destination network of phone calls, allowing operators to get away with higher charges for off-network calls. True, operators will also try to grow their network size by offering lower rates for within-network calls (e.g., Verizon offered ‘unlimited in calls’ while AT&T has offered ‘free mobile-to-mobile calls’ and ‘Family Talk’ plans). But, the net effect of this confusion can be an increase in average tariff. In the Canadian market, for instance, the average per-minute charges for the four main operators in the first four quarters after introduction of MNP was 7-14% higher than in the four quarters preceding MNP (see chart).

In the short-term, while the MNP policy is clear on paper, much will depend on its actual implementation and enforcement in practice. The government had previously delayed the implementation of MNP in order to give mobile operators sufficient time to prepare their systems for this change. Still, the technology for porting is complex enough that it may not function smoothly. Subscribers also have certain responsibilities on their end, and operators can exploit the lacunae in subscribers’ applications in order to stonewall a porting request. The impact of MNP will therefore depend on the nature of enforcement and penalties for non-compliance.

Several factors distinctive to the Indian market may also dampen the impact of the MNP policy. First, the Indian market is split between the GSM and CDMA standards. Although MNP will work across the two, sub-
scribers who switch from one network to another might incur an additional switching cost of purchasing a new handset, which might reduce the extent of switching. Similarly, the Indian market has a large fraction of prepaid users who have tended not to be phone number loyal in the past, hence MNP might not have a big impact on their decisions. Besides, a subscriber will have to remain with the current operator for at least three months in order to avail the MNP service. These factors will have a constraining effect on churn rate.

MNP is also likely to create a channel for market share reallocation and thus affect market structure. Large incumbents in the wireless market usually argue against MNP, due to concerns about loss of customers, drop in revenue and undermining of competitive positions. They lobby the government to postpone the policy. That is why the actual MNP implementation often lags its initial announcement in many markets—in fact, the initial recommendation by Telecom Regulatory Authority of India (TRAI) was to implement MNP by April 1, 2007! Meanwhile, entrants and smaller players are in favor of MNP, which can help level the playing field. Specifically, if more customers flow from larger networks to smaller networks, we should expect to see more balanced market shares among the players in a more competitive arena. But, conversely, if large operators offer substantial discounts for in-net calls, then we can expect customers to gravitate towards a few big firms. Indeed, there is mixed evidence about whether MNP makes the market less or more concentrated. For example, while the market concentration index (Herfindahl-Hirschman Index or HHI) decreased after MNP in the US, Korea and France, it did not seem to change in Japan or Canada.

The long-term impact of MNP is more nuanced. In a world with high switching costs, firms enjoy high margins due to which they also offer massive discounts to acquire customers. Conversely, as MNP reduces switching costs and firms’ margins, then firms will no longer have strong incentives to poach their competitors’ market share or to offer sweet deals to acquire new customers. As a result, firms should become more sensitive towards their existing customers, and spend more on customer retention rather than customer acquisition. Yet, the reduced profit margins make it less likely that firms have the resources needed to reward existing customers with innovative products and services. Smaller firms may be hit harder because they have to spread the cost of implementing porting technology over a smaller installed base. Consequently, we should expect some industry consolidation to weed out weaker firms. In return, MNP may encourage market entry, e.g., by Mobile Virtual Network Operators (MVNOs). These entrants usually offer competitive prices, and MNP will make these firms attractive because subscribers can now retain their old phone numbers. We should also expect the remaining players to carve out a niche in product and service differentiation in order to preserve some pricing power and create lock-in effects through products that are a better match with specific customer segments. In the long run, as price becomes more competitive, it may not be a differentiating factor among operators any more. The winners in the post-MNP game are likely to be the operators who can deliver better Quality of Service, more innovative applications, and more advanced data services.

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