Consumer Switching Behaviour towards Mobile Number Portability

Payal Mehta

Visiting Faculty, Department of Economics and Finance, Birla Institute of Technology and Science Pilani-Hyderabad Campus, Hyderabad

Abstract: *The Indian telecom industry is one of the fastest growing in the world after China and is projected that India will have 'billion plus' mobile users by 2015. The much awaited Mobile Number Portability (MNP) has been launched in January 2011. The mobile users in the country now have the choice to switch from one telecom operator to another, within the telecom circle, without the change of phone number. The introduction of MNP is expected to promote more competition in the sector, and force service providers to improve service quality and reduce prices. The present study examines the effect of MNP on the IT and ITES sector employee segment in Hyderabad. The primary objectives of the study are to study the awareness level of MNP, to explore the brand-switching behaviour by accessing MNP, and to understand the factors influencing towards MNP. The study shows that, though there is a very high level of awareness, there is not much response in terms of increasing the intension to switch service providers. In fact, the introduction of MNP has made the segment more quality-service and price sensitive. As a result, service providers must offer better service at reduced prices in order to retain and expand its customer base.*

Keywords: Telecommunications, Mobile Number Portability (MNP), Brand-switching behaviour

Introduction

India has emerged as one of the fastest growing telecommunications markets in the world. The rapid growth in Indian telecommunications services has prompted major global manufacturers of telecommunications equipment to consider investing in India, paving the way for extensive provision of modern communication services in rural areas. India's first operator was the state-owned Bharat Sanchar Nigam Limited (BSNL), created by corporatization of the Indian Telecommunication Service, a government unit formerly responsible for provision of telephony services. Subsequently, after the telecommunication policies were revised to allow private operators, companies such as Bharti Airtel, Reliance Communications, Tata Indicom, Idea Cellular, Aircel, Uninor, Tata Docomo and others have entered into the market. (ANRT).

Number Portability refers to the ability of end users to retain their telephone number when they change their network operator/service provider, their location, or their service.If the subscribers are not satisfied with the services of their service provider, they can change their service provider while retaining the existing phone number. This infuses competition among service providers and forces them to improve their service standards to satisfy subscribers. There are three number portability services as Operator portability, Location portability, Service portability.

Operator portability: It refers to the ability of an end user to retain the same telephone number when changing from one operator to another. It is also referred to as service provider number portability.

Location portability: It refers to the ability of an end user to retain the same telephone number when changing from one physical location to another without necessarily changing their operator.

Service portability: It refers to the ability of an end user to retain the same telephone number when changing from one type of service to another without necessarily changing their operator (e.g. from old telephone service to ISDN).

According to TRAI, the telecommunications sector has witnessed a continuous growth in the total number of telephone subscribers. From 621.28 million telephone subscribers in 2010, it has grown to 906.18 million at the end of August 2013. Wireless telephone connections have contributed to this growth as the number of wireless connections rose from 35.61 million in 2004, 752.20 million in December 2010 and 876.72 million till August 2013. The wire line started to decline from 40.92 million in 2004, 36.96 million in March, 2010, 35.09 million in December, 2010, and 29.46 million till August 2013 (Table 1).

Table 1: Growth of telephone subscription

Highlights on Telecom Subscription Date as on 31st August, 2013

Particulars	Wireless	Wireline	Total Wireless+ Wireline
Total Subscribers (Millions)	876.72	29.46	906.18
Total Net Monthly Addition (Millions)	1.84	-0.12	1.72
Monthly Growth (%)	0.21	-0.41	0.19
Urban Subscribers (Millions)	525.84	23.07	548.90
Urban Subscribers Net Monthly Additions (Millions)	0.05	-0.07	-0.02
Monthly Growth (%)	0.01	-0.30	-0.003
Rural Subscribers (Millions)	350.88	6.39	357.27
Rural Subscribers Net Monthly Additions (Millions)	1.79	-0.05	1.74
Monthly Growth (%)	0.51	-0.81	0.49
Overall Teledensity*	71.21	2.39	73.60
Urban Teledensity*	139.65	6.13	145.78
Rural Teledensity*	41.05	0.75	41.80
Share of Urban Subscribers (%)	59.98	78.31	60.57
Share of Rural Subscribers (%)	40.02	21.69	39.43

(Source: TRAI)

MNP allows any subscriber to change his service provider without changing his mobile phone number. MNP was launched on the 25th November 2010 in Haryana and on 20th January 2011 in entire country. With the introduction of MNP, mobile telecommunications service providers are forced to improve quality of their service to avoid loss of subscribers.

Literature Review

The phenomenal growth of mobile telephony in India has given the Indian telecommunication sector a high visibility in the media. Many newspaper and magazine articles highlight this growth, and report its segment-wise distribution. MNP in particular has received great media attention. However, not many formal studies have been undertaken on issues related to the Indian telecommunications sector.

Debnath and Shankar (2008) argued that the prime focus of the service providers is to create a loyal customer base by benchmarking their performances and retaining existing customers in order to benefit from their loyalty. They identified the different parameters for the mobile service providers in India for the benchmarking of the service providers, and categorized them into various input and output parameters contributing towards the number of subscribers for different service providers. They also examined differences between the number of subscribers and the performance of the service providers. They suggested that benchmarking of the service providers would depend on the efficiency and quality of service.

Suthar (2012) studied on consumer behavior after mobile number portability with reference to Gujarat telecom circle and reflected on mobile phone user's perception and switching barriers that discouraged them from switching operator.

Jha (2008) suggested that it is the youth which is the real growth driver of the telecommunications industry in India. His study examined how demographics influenced the usage pattern of mobiles.

Robins (2008) highlighted the issues in marketing the next generation of mobile telephones, viz. "3G". The first is related to the pricing of 3G handsets and services, given the high licensing fees. All variants of 3G remain dependent on largely unproven technology. He pointed out that marketing of 3G would be of high risk. First, 3G has no obviously unique selling proposition to build on except, perhaps, the combination of live video and easy portability. Second, the potential customers have not yet had adequate opportunity to signal their service likes and dislikes. Third, the cost and complexity of service provision leave doubt about the market's reaction to price.

Bhatt (2008) analyzed the perceptions of students on the usage, necessity, and spending on mobile phones. He also compared the students' perspectives on the different mobile handset companies and mobile service providers.

Kapoor (2009) reported that business subscribers mostly from the postpaid category are more likely to shift their service providers' gears, while the prepaid, low and medium spenders are not likely to be motivated to switch. He suggested that, as the market grows and hyper-competition takes effect, retention of the right type of customers will become critical. He also argued that there is a powerful opportunity for operators to drive in-bound porting of high-value subscribers, provided that they have a good understanding of who is more likely to switch. Satisfaction scores on network quality dropped for almost all operators, with Airtel, BSNL and Reliance registering the greatest drops. He suggested that loyalty to operators is seen to be higher among lower socio-economic groups, older age groups, and among females.

Yadav (2013) studied "Effects of Mobile Number Portability in Telecom Sector - A CaseStudy of Idea Cellular Ltd", and figured out the impact of mobile number portability on service providers and service users with the effect on sale ofIDEA and strategies adopted to retain and attract customers by IDEA cellular limited.

Aulakh (2011) reported that the number of cell phone users who have chosen to avail mobile number portability has hit the 10 million mark in about four-and-a-half months since the national launch of mobile number portability or MNP. As on May 24, 2011, Vodafone has recorded a net gain of 591,600 new customers followed by the Aditya Birla Group-owned Idea Cellular (590,343) and Bharti Airtel (563,460). "The movement is largely due to brand perception and brand awareness," says research firm KPMG's telecommunications head Romal Shetty. Idea gained more customers due to the marketing campaign. Even in this scenario, independent surveys continue to indicate that one out of three customers who are considering

switching would eventually sign-up with Airtel. Reliance Communications has been the largest loser whose netloss of over 1 million customers. It lost customers in both CDMA and GSM networks, receiving 672,823 port-out requests in GSM, while the CDMA network lost 413, 846 customers.

The formal literature on MNP in India is very scarce. Most studies of MNP are in the form of opinion surveys and/or market reports. The current study aims to address this gap in the literature.

Methodology

The primary objectives of the study are to study the effect of MNP among the IT and ITES employees, to explore the brand-switching behaviour of mobile users by accessing MNP, and to understand the factors influencing consumers towards MNP. The study has been limited in scope geographically to Hyderabad, India. The study focuses on the service segment, as it represents the growing consumer segment in India. The data for the study was collected from a sample of 188 employees in various IT and ITES companies in Hyderabad through a structured questionnaire.

The profile of the respondents is described as follows. 71.8% of the respondents were male, 28.2% were female. In terms of age group, 6.4% of the respondents were employees in the age group less than 25 yrs., 47.3% in the age group 25-35 yrs., 36.2% were from 35-45 age group and 10.1% in the age group of 45 and above yrs. The usage period of the current mobile service provider, 5.4% of the respondents were using their service provider for less than 4 months, 20.8% for 4 months-1 year, 28.2% for 1-2 yrs., 27.6% for 2-5 yrs., and 18.0% for more than 5 yrs. Further, 41% of the respondents used post-paid connections, and 59% used pre-paid connections. Airtel had the maximum share of respondents (46.8%), followed by Vodafone (30.3%), then by Idea (11.2%), Reliance (6.4%) and other service providers (BSNL, Docomo, Aircel; 5.3%).

Test for Reliability

Cronbach's Alpha was calculated as a coefficient of reliability (or consistency) to estimate the reliability of the measuring instrument constructed from the responses of the questionnaire. The observed value of α came as greater than 0.78, indicates a high level of reliability.

Measures

A questionnaire was developed for the present study based on the previous literature in the area of the work. Twelve parameters of mobile user satisfaction were identified through (i) a literature search and (ii) interviews with managers of the different service providers as well as with academicians. Data was obtained from questionnaires completed by 188 employees of IT and ITES. Data were collected through Likert-type scale items.

The study was based on the analysis of the responses to these issues. Furthermore the data was collected on the respondents with respect to their different hierarchical levels in the organization, gender, different mobile service providers, and total years of usage with current service provider etc. Mean, Standard Deviation, Discriminant analysis were used to analyze the data.

Findings

The awareness level of Mobile Number Portability (MNP) was found to be very high, with 97.3% of the respondents being aware of MNP, and only 2.7% were not aware. Newspapers (40.4%), followed by the internet (25.5%), television (18.1%) friends/family (11.7%), and radio and magazines (4.3%) were the source of awareness.

However, with regard to brand-switching intensions post-MNP, 34.6% of the respondents were considering switching to new service provider, while the rest of the respondents (65.4%) were not considering switching. Out of the 34.6% respondents who were considering switching their service provider, 27.7% respondents preferred to switch to Airtel, 18.5% to Vodafone, 9.2% to Reliance, 20% to Idea, and the rest with other service providers. Thus, 16% respondents were considering switching either to Airtel or to Vodafone, due to their good marketing strategies to attract the service class segment.

Cross-tabulation was performed to test the association between demographics (gender and age) and the level of awareness about MNP and between the type of connection and intension to switch to new service provider post-MNP. There was no significant association between age and level of awareness about MNP ($\chi^2 = 0.287$, p-value = 0.864), and no significant association between gender and level of awareness about MNP ($\chi^2 = 0.348$, p-value = 0.548). However, there was significant association between type of connection and switching after implementation of Mobile Number Portability ($\chi^2 = 5.847$, p-value = 0.012).

The satisfaction level (on a reverse scale) of the respondents with respect to different parameters for their current service providers, and their overall satisfaction level is presented in the Table 2.

Table 2: Satisfaction Levels of parameters (for current service provider)

Variables	Mean	Std. Dev.
Network Coverage	1.74	0.66
Voice clearance	1.96	0.68
Call rates	1.54	0.57
Plans	1.69	0.54
Customer Service	2.84	0.96
Local call rates	2.41	0.78
STD call rates	2.63	0.84
International roaming	2.97	0.98
Internet charges	2.12	0.74
SMS charges	2.67	0.61
Balance deduction/billing	1.59	0.85
Value added service	1.48	0.64

(Source: Primary Data)

Discriminant analysis was performed, with likely to switch the service provider/unlikely to switch the service provider as the dependent variable, and Network Coverage, Voice clearance, Call rates, Plans, Customer Service, Local call rates, STD call rates, International roaming, Internet charges, SMS charges, Correct balance deduction/billing, Clear value added serviceas the independent variables. The results of the discriminant analysis are shown in Table 3.

Table 3: Discriminant analysis of switching service provider

Variables	Unrestricted Coefficient	Stepwise Coefficient
Network Coverage	0.6070	
Voice clearance	0.6450	
Call rates	0.8130	
Plans	0.130	0.7270
Customer Service	0.1470	0.8250
Local call rates	0.1690	
STD call rates	0.3340	
International roaming	0.3050	
Internet charges	0.5140	
SMS charges	0.4908	
Balance reduction/billing	0.6571	
Value added service	0.5996	
Centroids:		
Likely to Switch	0.9210	0.7750
Unlikely to Switch	-0.2520	-0.2120
Goodness-of-fit:		
Wilks lambda	0.8513	0.8946

The result of the analysis indicate that the parameters influencing the likelihood of switching service providers are dissatisfaction with Call rates, Voice clearance, network coverage, balance reduction/billing and value added service.In particular, the only significant parameters the likelihood of switching service providers are dissatisfaction with Customer Service and dissatisfaction with Plans.

Table 4: Reasons for changing the current service provider

Variables	Mean	Std. Dev.
Better features/plans offered by competitor	2.35	1.25
No up-gradation of existing plan	2.60	0.95
Hidden charges	2.60	1.47
Long waiting for customer care support	2.65	0.58
Special impressive number	2.65	1.47
High internet charges	2.78	1.96
Poor network coverage	2.85	1.35
High SMS charges	2.88	1.75
Frequent network problems	2.93	1.61
Voice quality issues	2.98	1.41
Costly value-added services	2.98	1.34
Influenced by Family/friends	3.03	1.27
Error in billing or deducting extra amount	3.10	1.51
High service charges for recharges	3.18	1.26
High international call rates	3.20	1.53

(Source: Primary Data)

The reasons (on a reverse scale) expressed by the respondents who intended to switch service providers for changing their current service provider post-MNP are presented in Table 4. The most important reasons expressed by the respondents for changing their current service provider were: better features/plans offered by competitors, no up-gradation of existing plan, costly value-added services, improper customer service, high call rates, high internet charges, poor network coverage, high SMS charges, frequent network problems, voice quality issues, and hidden charges.

Also, the most important reasons expressed by the respondents for not changing their current service provider were: satisfaction with current service provider, brand loyalty, no added benefits, and same service quality across service providers and same user group plan across service providers.

Discussion

There is a very high level of awareness of MNP among IT and ITES employees. The main source of awareness was newspapers, internet and television. The results of the study yielded some important insights into the effect of MNP on the employee segment. In particular, the two significant parameters influencing likelihood of switching service providers in the employees segment are dissatisfaction with Customer Service and dissatisfaction with Plans. Also, the main reasons for wanting to switch were related to better features offered by competitors, no new schemes/plans or up-gradation of existing plan, costly value-added services, improper customer service, high call rates, high internet charges, poor network coverage, high SMS charges, frequent network problems, voice quality issues, and hidden charges. On the other hand, the main reasons for not wanting to switch were related to satisfaction with current service provider, brand loyalty, no added benefits, and same service quality across service providers and same user group plan across service providers. This suggests that service providers are generally seen to offer good quality of service, with not much difference between them. In fact, users of Vodaphone and Airtel were very satisfied with the quality of service.

In telecom sector, it was a common practice that a new service provider was expending more on branding is new product but after MNP has introduced, the game is changed. Now all service providers have to face a cut-throat competition from other providers. Every company is trying to eye on others' customer as well as tying to retain their own customers.Now, Service providers should keep improving the quality of their service and provide more flexible plans in order to retain their customers, especially if competitors are continuously improving their services. Service providers must offer better service at reduced prices in order to retain and expand its customer base. The study has some limitations. The sample size used for the study was relatively small and confined to Hyderabad. Thus, the results of the study may not be generalizedat all-India level.

There is vast scope for further investigation in the same area. The study is carried out in Hyderabad and can be extended to examining the impact of MNP on other segments, and in different geographical regions. Also, further research can address the interaction of MNP with other factors affecting brand-switching between mobile telephony service providers.

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