

IMPACT OF MOBILE NUMBER PORTABILITY ON MOBILE USERS SWITCHOVER BEHAVIOR-INDIAN MOBILE MARKET

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ABSTRACT

Mobile number portability permits to a mobile subscriber to switch operators without changing his/her telephone number. This research paper describes that Impact of Mobile Number Portability on Mobile Users Switch over Behavior-Indian Mobile Market. Mobile number portability is now a crucial issue for mobile service providers. The most challenging job for the present day is that retain existing mobile customers. The mobile operator's ability to retain its customer has a direct impact on its profitability and effectiveness. Losing a customer will affect the mobile operators in terms of cost.

Keywords: Mobile, behavior, switch, network, and communication.

INTRODUCTION:

The mobile communication plays a major role in telecommunication industry. Indian telecommunication sector is prosperous as Indian economies are considerably good. Mobile network comes under the service sector, which is experiencing a rapid development which in turn is supporting the growth in Indian economy, provides ample chances employment and self employment generation. The most challenging job for present day for network providers is to retain their customers. As mobile number portability has been introduced in India, retaining existing customers is now a very tough job for network providers. After the introduction of mobile number portability in India, the mobile user's switching turnover is more. This paper brings to light the reasons behind that Mobile Number Portability on Switching Behavior-Indian Mobile Market.

Mobile Number Portability is the process by which, one can move to another operator of one's choice, but one can retain the old number. The advantage is that one need not have to go through the problem of informing all your friends & family that your number has changed - it stays the same. Subscriber can keep with the same technology, GSM/CDMA. Also shift to CDMA or vice versa. Both post-paid & prepaid subscribers can use it.

HISTORY OF MOBILE NUMBER PORTABILITY:

As mobile phone was introduced as a tool to encourage competition in the heavily monopolized wire line telecommunications industry, number portability became popular. After the advent of mobile telephones, many countries allot different area codes to mobile operators without portability. Hence shifting one's operator would require shifting one's number. Especially, some present operators with a many of subscriber bases have argued next to portability on the basis that providing this services incur considerable overhead, at the same time as others argue that it prevents seller lock-in and allows them to compete fairly on price and service. Owing to this divergence, number portability is typically mandate for all operators by telecommunications regulatory authorities. Singapore mobile subscribers were one of the early in the world to enjoy number portability from side to side this Call-Forwarding solution and it was launched there in 1997. Hong Kong, UK, and Holland followed in 1999 and now over 54 countries around the world have implemented mobile number portability.

MOBILE NUMBERS PORTABILITY IN INDIA:

MNP has been introduced in India, in two phases. It has been introduced first in Indian metro city and group A telecom zones, on December 31, 2009, and afterward in the remaining part of the country, by March 20, 2010. Subscribers have to pay up all due bills before making an application for MNP. The mobile porting fee is to be paid to the latest operator. No fee payment is necessary to be given to the operator you are parting. TRAI said that porting between mobile operators be supposed to be accomplished within four days. There's a catch though. Users cannot change operator and retain number if you have been with that service operator for less than three months. Prepaid users must keep in mind that their balance talk time and SMS will disappear if they switch to a different operator. The highest downtime between deactivating the existing connection and starting the new connection will be a maximum of two hours.

REVIEW OF LITERATURE:

According to (Nilsson, 2006) number portability implementation would require the network operators to first find out all internal systems that would be impacted by this change and then resolve the system to use for routing the calls from an originating network to the mobile network associated with a given mobile number.

According to Padila et al. Switching costs can be defined as real or perceived expenditure that are incurred when altering supplier but which are not incurred by remaining with the current supplier. Switching costs is a widely spread phenomenon which fundamentally changes the way in which firms behave and markets operate. The existence of such costs leads to economies of scale in repeat purchasing, because a customer who has previously bought from one firm incurs extra cost in purchasing an otherwise identical product from a new firm, even if that product is sold at the same unit price. As a consequence, in markets with consumer switching costs demand is less elastic and consumers have limited incentives to migrate to cheaper offers which dampens competition.

As a result, Sutherland (2007) revealed that regulators have found it necessary to launch MNP services, as they reduce switching fee and "facilitate consumer choice and ensure effective competition".

The MNP service also encourages churn, as mentioned above, which service providers generally strive to keep at a minimum. High churn rates are especially useful for new entrants into the mobile market,

because they are able to acquire subscribers to their networks. MNP helps these firms to acquire new subscribers, but operators are faced with the task of having to retain their existing subscribers, which may sometimes be harder to do (Smura, 2004).

(Iqbal, 2007). Iqbal, T The importance of competition is evident from the failure of Ireland's MNP implementation. The market comprised of three operators, two incumbents and a weak and young competitor, meant that competition in the market was lacking. As a result, subscribers saw no benefit from switching from one operator to another, even with the availability of the MNP service, leading to poor porting rates.

Gans, King & Woodbridge (2001) also discussed the importance of having a dynamic market and as many willing operators as possible. This will help regulators to work with a group of determined individuals ideally pushing for the facility.

METHODOLOGY:

STATEMENT OF THE PROBLEM:

The present study seeks to examine the Impact of Mobile Number Portability on Mobile Users Switching Behavior-Indian Mobile Market. It aims to analyse the magnitude of mobile number portability. An attempt is also made to identify the major factors determinants of switching behavior of mobile number portability.

SCOPE OF THE STUDY:

The present study has been made to analyse of the mobile number portability and users switching behaviour. The study further identifies the mobile users choice and preference.

OBJECTIVES OF THE STUDY:

1. To find out network switching behavior of mobile users.
2. To know the reason for network switching.
3. To examine the growth of Mobile number portability in India.
4. To identify factors which determine the network switching behavior of mobile users
5. To know the satisfaction level of current network service provider.

METHODOLOGY OF THE STUDY:

The study is based on the primary data. The relevant secondary data have been collected from various journals, magazines, books and websites. The collected data were coded, tabulated and analysed with the help of a few statistical tools.

SAMPLE DESIGN:

The present study is infinite. Hence, it was decided to use convenient sampling method. Since the study connected to the urban (Bangalore) people, sample chosen consisted of 100 respondents representing from different status viz., businessmen, professionals, students, employees etc.

STATISTICAL TOOLS:

Various statistical tools are used in analyzing the primary and secondary data. This involves a lot of calculation and computations. In order to economize the time and ensure accuracy computer is used for analysis, whenever problems arise. The researcher has used the table, percentage, Chi-square test, ANOVA, Markov Chain, Kendall's W Test and ranking method tools for analyzing the data.

LIMITATIONS OF THE STUDY:

The study covers a period of three months only. The research is based on the data collected from the Bangalore city. Most of the respondents may not give accurate data or information. The secondary data are gathered from standard text books and other records which might possess inherent limitations of exactness of statistics.

Data Analysis:

Table I: Sex of Respondent

Sex Respondent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	73	73.0	73.0	73.0
	Female	27	27.0	27.0	100
	Total	100	100.0	100.0	

The above table explore that 73% of male respondent have been changed their mobile network where as 27% of male respondent they have been changed their network.

Table II: Age of Respondent

Age of Respondent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 - 30 Yrs	41	41.0	41.0	41.0
	30 - 40 Yrs	32	32.0	32.0	73.0
	40 Yrs & Above	27	27.0	27.0	100.0
	Total	100	100.0	100.0	

The age of respondent table revealed that 41% percentage of young customer and followed by 32% percentage of middle age customers they were preferred to change their mobile network. Reason it may be college students and young employees they have passion to change because they always used to talk more over phone.

Table III: Switching Behaviour

Markov Chain used for find switching Behaviour

	Network	Airtel	BSNL	TATA Docomo	Vodafone	Idea	Aircel
P	Airtel	0.35	0.25	0.1	0.05	0.15	0.1
	BSNL	0.14	0.15	0.21	0	0.36	0.14
	TATA Docomo	0.06	0.19	0.13	0.13	0.19	0.3
	Vodafone	0.23	0.08	0.15	0.23	0.23	0.08
	Idea	0.05	0.16	0.1	0	0.58	0.11
	Aircel	0.11	0.11	0	0.22	0.17	0.39

The above table shows the current status of various Mobile network users. To carry out the possible switch-over brand analysis, Markov-chain is used. At the end of one year time period, Idea network users will remain in the same brand followed by Airtel Network users. The possibility of switching the brand may occur from BSNL to Idea.

Table:IV-Chi-Square Test

Null Hypothesis: Likelihood of recommendation of Net work is independent of satisfaction with the network.

Crosstab					
Count					
		Likelihood to recommend others			Total
		Not Recommend	Un Decided	Most Likely Recommend	
Satisfaction about the current Network	Good	6	8	20	34
	Fair	10	9	17	36
	Poor	10	9	11	30
Total		26	26	48	100

Table V: Chi-Square Test

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.492 ^a	4	.479
N of Valid Cases	100		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.80.			

Conclusion: the chi-Square significant value shows that, the hypothesis is accepted. That is, the obvious statement “Unless or otherwise the consumers are satisfied they are not ready to recommend to others” is shown.

Table VI: ANOVA

Satisfaction about current network features

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Satisfaction towards Network	Between Groups	6.744	5	1.349	.691	.631
	Within Groups	183.366	94	1.951		
	Total	190.110	99			
Satisfaction about Call rates	Between Groups	11.698	5	2.340	1.115	.358
	Within Groups	197.292	94	2.099		
	Total	208.990	99			
Satisfaction about customer care	Between Groups	15.972	5	3.194	1.421	.224
	Within Groups	211.338	94	2.248		
	Total	227.310	99			
Satisfaction about recharge coupon availability	Between Groups	9.080	5	1.816	.870	.505
	Within Groups	196.280	94	2.088		
	Total	205.360	99			
Satisfaction about internet service	Between Groups	13.478	5	2.696	1.315	.264
	Within Groups	192.632	94	2.049		
	Total	206.110	99			

The ANOVA table shows that, the framed hypotheses have been rejected. Satisfaction about the features is not equally distributed over all the brands. This is obvious fact that all the mobile network service providers can not satisfy their customers equally despite they have their own facilities and options.

Table VII: Kendall's W Test

Ranks		
	Mean Rank	Assigned Ranks
Brand name is important	3.09	8
Recharge coupon Availability is Important	5.04	4
Network clarity are Important	5.04	3
Roaming charges is Important	4.54	5
Talk time Schemes is Important	5.07	2
Call Rate is important	5.46	1
Customer care Service is Important	4.52	6
Speed internet services is Important	3.26	7

Kendall's W test is carried out to know the most prominent feature that decides the Switching of mobile network. The mean rank table concludes that, call rates, talk time scheme followed by two factors network clarity and recharge coupon availability. It is understood that now-a-days customers are particular about the technology also.

Test Statistics	
N	100
Kendall's W ^a	.128
df	7
Asymp. Sig.	.000
a. Kendall's Coefficient of Concordance	

Though the order have been given as stated above, since the coefficient of concordance is less the data is not supportive to the statement. This is true about 12%.

CONCLUSION:

The research survey results show that more Number of Unhappy Mobile Service users are there in India. Because of that mobile users have opted for Mobile Number Portability (MNP), a service which allows users to change operators while retaining their mobile numbers. According to research IDEA Cellular, Bharti Airtel and Vodafone emerged as most preferred mobile service operators in terms of MNP, continues to gaining customers from other service providers. Even though I have not included the following operators for my research but most of the respondent they gave their opinion about their service according to their opinion, Reliance Communication (RCOM – GSM / CDMA), Tata TeleServices (Tata Indicom), uninor and PSU BSNL are biggest loser in terms of MNP. This paper also highlights that the there are some evidences shows that satisfaction has a major influences on switching behavior and mobile operators which satisfy the needs of the users at an affordable cost can stand the test of time. More number of young mobile customers prefers mobile number portability than old age respondents.

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