A Study of Mobile Number Portability with Special Reference to Customers' Perception and Problems

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Abstract

Present study was carried out to study mobile number portability with special reference to customer's perception and problems in three districts (Jind, Rohtak and Sirsa) of Haryana. Total 150 respondents were selected for the survey, 50 respondents from each districts and all of these belongs to the different age groups and different profession. Random sampling method was used for data collection. A well structured questionnaire was prepared to analyse the response from different users about satisfaction towards mobile number portability process. Different statistical techniques were used during data analysis (Percentage, Mean, Mode, Standard deviation, Chi-square test). IBM SPSS (16.0 version) software was used to compile all observations.

Introduction

Mobile Number Portability (MNP) is the process by which, users can retain their existing number when they move from one service provider to another service provider within a same licensed service area. Customers don't have to go through the trouble of informing all his friends and family that his number has changed because it remains same. MNP is implemented in different type of ways in all over the world. The European and international standard is for a customer wishing to port his or her number to contact the new provider (Recipient) who will arrange necessary process with the old provider (Donor). This is also known as 'Recipient-Led' porting. The United Kingdom did not implement a 'Recipient- Led' system, where a customer wishing to port his or her number is required to contact the old provider to obtain a Porting Authorization Code (PAC) which he or she has to give to the Recipient. Once having received the PAC the Recipient continues the port process by contacting the Donor. This type of porting is also known as Donor-Led and has been criticized by some industry analysts as being inefficient. It has also

been observed that it may act as a customer deterrent as well as allowing the Donor an opportunity of 'winning-back' the customer. It might be lead to distortion of competition, especially in the markets with new comers that are yet to achieve scalability of operation. In India, MNPis launched recently which is Donor Led. Only the terminology is changed from PAC to Unique Porting Code (UPC). The world's first country to introduce MNP was Singapore in 1997, followed by the UK, Hong Kong. As of 2003, a number of many countries, especially in Europe, require MNP.

In India after four times of announcements, MNP finally implemented and it is starting from Haryana state from November 25, 2010. MNP enables mobile phone users to retain their mobile telephone numbers when changing from one mobile service provider to another. The much awaited MNP finally implemented in Haryana. The MNP is inaugurate by the Minister of Communications and information technology (Mr. Kapil Sibal) by making the inaugural call to Shri Bhupinder Singh Hooda, the Chief Minister of Haryana from a ported mobile number in function held at Rohtak city. During the launching of MNP Mr. Kapil Sibal said that first phase of the MNP has been launched today in Haryana and customers in the state now have the option of changing their service provider without changing their phone numbers. He said these services initiate heavy competition among service providers which ultimately benefits 'Aam Aadmi'. The MNP will be launched across India by January 20, 2011. For orderly technical migration of complex interconnected networks, each remaining service areas will be migrated one by one on alternate days. This will enable simultaneous salivation of technical parameters and removal of any problems arising from migration activity to ensure successful and smooth migration of a service area. These activities will not take place during the festival season at the end of December, 2010. The MNP will be available in other states, in first phase the service will be available in 11 circles out of 22 telecom circles like Haryana, Maharashtra, Gujarat and some states.

Perception

The word percept is the mental product with the help of this intuitive power the human being including animals perceive or become aware of through the senses or by mind. Perception means perceiving and the word perceive means to become aware of by one of the senses. It is, therefore, an intelligent observation or understanding. The word perception refers to the intuitive faculty. Other meanings of the word perceive are to discern to apprehend, understand, comprehend or have knowledge. Perception is the process by which we become aware of and give meaning to events around us. It is through our perception that we come to define 'Reality'. Perceived reality is what individuals experience through one or more of the human senses and the meaning they ascribe to those experiences. Perception is

the process by which people organize and obtain meaning from the sensory stimuli they receive from the environment. Nobody in the same situation will perceive it in exactly the same way.

Difficulties of Mobile Number Portability In India

MNP is a great technology it also may cause a few problems to the users.

Disadvantages to the users

- **The switching from one service provider to another requires subscribers have to pay Rupees 19:** it means subscribers have to pay few charges to the new service provider for using their service. It is expected that service provider would ask subscribers the maximum amount of Rupees 19 for changing to their service
- **Subscribers have to follow the old procedure of going to a shop for getting a new SIM:** If subscriber thought that he or she would just send a message and will change his or her service provider which he or she have in the train, subscriber is wrong. Subscribers have to go to the shop and get a new SIM.
- **It takes time for the switch to take place:** Nothing is in your hands after started the process of changing the service provider. One would have to wait for few days for the switch to happen in the worst case. In the best case, it will take about an hour.
- **Since it has not been made clear that when a person use his new SIM card after applying to the new service provider, it may cause problems to the users:** if subscribers get a new SIM and start using the moment buy it. It will not be possible since the new SIM which subscribers buy will not be active unless the number is transferred to the new service provider, which may take time of the old service provider is snail paced.
- **Subscribers cannot use this service to change the operators across telecom circles:** In simpler words, assume that if a person living in Orissa is shifting to Karnataka wants to retain his number; he will not be able to change the service provider.

Problems To Mobile Phone Customers Form The Operator

There are a lot of problems to mobile phone customers form the operator. These are call rates problem, network problem, service unavailability, deduction of amount, value added service download, service centre calls, bad customer care service, attractive offers, low quality infrastructure etc.

- **Call rates:** Call rates are the main variable that affects the customers' loyalty to a service provider.
- **Network problem:** Network problem is the main hindrance to

customer for selecting a service provider. No service providing company soundly says that their network is in sound position all over India. Network loosing during call and disturbing sound are the main problems to a mobile customer.

- **Poor service availability:** The poor mobile service availability such as busy network, deem listening etc. are the vital problems to mobile customers.
- **Deduction of amount:** Deduction of amount is also a problem for the customers that their balance is deducted automatically. When a customer appeal to customer care centre, they don`t give the satisfactory answer. And after all the customers switch to other service provider, but their problems are not solved.
- **Value added services:** The service provider companies lure to the customer for subscribing value added services, the customers have no knowledge about it. By chance they follow the caller`s direction ignorantly, their balance is deducted by the service provider.
- **Unnecessary calls:** Service centre calls are also luring the customers and the entire customer irritated from this type of calls.
- **Bad customer care services:** When a customer wants to know some knowledge about services given by the service provider, the service executives are not to talk with the customer for a long time and if they received the call the service executives are not given the satisfied answer. They do not give the complete information to the customers.

Review of Literature

Agyekum(2013) found that in Ghana, mobile subscribers who weren't satisfied with the services of their mobile service providers had no option but to give up their numbers when switching service providers. As such, subscribers were reluctant to switch from their operator to a competitor thereby preventing effective competition in the Ghanaian mobile communications sector. This necessitated the National Communications Authority to develop a MNP Policy in consultation with the mobile service operators. This MNP policy has been recently implemented successfully enabling mobile subscribers in Ghana who were hitherto reluctant to bear the cost and inconvenience of switching operators, to fully exercise their freedom of choice. Analysis of data shows subscribers porting in and out of all the mobile communication networks. The average net effect of porting in and out as at March 2013, expressed as a percentage of a network's most recent reported subscriber base was about 4.4 percent and 1.9 percent respectively. This paper discusses the implemented network architecture of

the MNP model and evaluates the performance of the MNP system during its two years of implementation in Ghana. The average porting duration during the first two months of implementation has also been presented and discussed accordingly. Ghana's mobile telephony sector is growing exponentially and is gradually becoming a highly competitive market. Given such a market with six competing network operators, the implementation of MNP is very relevant in providing Mobile subscribers the freedom in choosing which operator to subscribe to. Ghana now has what may be one of the fastest porting systems in the world. In March 2013, 91 percent of ports were completed in 5 minutes or less. A monthly porting average of 31,319 and an annual average of 1.6 percent of the subscriber base indicate how successful the MNP implementation in Ghana has been. Although there seems to be a seasonal variation developing in which porting volumes reduce in November and December, it is too early to draw any conclusions about seasonality. This paper has shown that the introduction of MNP into the telecom sector in Ghana has not been technically simple. Effective regulation and consultation has been seen to help reduce the porting duration for a successful MNP implementation. A survey is currently underway to determine the factors informing on subscribers to port. Results from the field survey will be presented when enough data is available. Cho*et al.* (2013) examined the effect of MNP on market price, competition and consumer welfare. MNP allows consumers to keep their phone number when they change carrier. Accordingly, MNP facilitates competition by reducing consumer's switching costs. Most European countries introduced MNP in the early 2000, which provides an opportunity to study the relationship between switching costs and price. MNP in Europe has been mandated by the European Commission and landed in each country as an exogenous shock. In fact, we perform a number of tests showing that the introduction of MNP is unrelated to local market conditions. We introduce a two period theoretical model that suggests that price generally decreases when switching costs reduce but also that price may increase if switching costs decrease proportionally. Using quarterly data from 47 mobile carriers in 15 European countries between 1999 and 2006, we show that MNP intensified competition leading to an increase in consumer surplus. On average, the introduction of MNP decreased price by 7.9 percent. Policies that require faster and cheaper MNP were also more effective in this respect. Furthermore, market followers seem to decrease price more than incumbents do when MNP is introduced. MNP also increases market competition by reducing the incumbent's market power and by tightening the range of prices practiced. We measure changes in consumer surplus by estimating the price elasticity of demand. Our

results suggest that, on average, MNP increased consumer welfare by 2.86 Euros per person. In sum, our study shows that MNP is an effective policy to reduce price and increase consumer surplus and that the European experience can be used as an example of a best practice by other countries that plan to introduce MNP in the near future. Nidhyananth (2013) explained the subscribers' preference of MNP in Coimbatore city. The main objective of this study is to know the subscriber inclination and major influencing factor for preferring a particular operator. The research design used in this study is descriptive research design. Data was collected from 200 subscribers, after screening the data 200 subscribers were taken into the account. Data was collected by survey method through structured questionnaire with closed ended questions. The primary data were collected through questionnaire, personal and telephonic contact with the subscribers. The secondary data were collected from the available literature sources. For distribution of questionnaire to the subscribers random sampling method was used and to collect the customer opinion survey was taken among the selected subscribers. The collected data includes personal details, proceeding and existing operator and awareness of MNP, utilization of MNP and satisfaction level of MNP. Most of the educated subscribers are having the awareness about of MNP. But, in case of illiterate people no awareness is there about the MNP. Most of the subscriber made satisfied with new operator. In India, out of 851 million subscribers 13 million subscribers are makes MNP request (1.53 percent) the same outcome is exposed in this study i.e. most of the subscribers are not willing to switch their operator and they want to retain their existing operator. Yadav*et al.* (2013) explained the attention on MNP with the special consideration given on porting, porting time, porting costs, fee, customer demographics, customer awareness, Easy entry of new operator, launch of services by new operators, attractive or aggressive tariff plans, innovative services, quality of service, Voice quality, low call drops and state-of-the-art customer service setup etc. Chi square test is applied in the paper to check the authenticity of data given by the respondents. This research aimed to figure out the impact of MNP on service providers and service users with the effect on sale of IDEA and strategies adopted to retain and attract customers by IDEA cellular limited. When asked to the IDEA officials about the entry of new service provider after MNP, the majority of 40percent of them were strongly agree and 22 percent were strongly disagree and said that It will not affect the market and 18percent were agree and 20percent of respondents were disagree with this fact. Also the chi square value radically shows that the opinion of respondents was significantly identical about the entry of new operator after MNP. On asking to the officials of IDEA that Is

IDEA providing "service guarantee" for their potential customers, then group of 60percent said yes and only 40percent said No and the chi square value entirely shows that the opinion of respondent was significantly similar and majority of staff is in favor that they provide service guarantee for attracting new ones. Suthar*et al.* (2012) explained that MNP helps mobile phone subscribers to change from one mobile operator to another without changing mobile phone number. It encourages market competition level and encourages better services. This study aims to investigate the effects of MNP on mobile phone users in Gujarat telecom circle by focusing mobile phone user's perception and their behavior related to MNP. It encourages market competition level and ensures better service. In India, Gujarat telecom circle has been a promising territory in India. The MNP has reduced switching cost notably. The operators have developed alternatives strategies to retain their loyal customers. The study aims to investigate the effects of MNP on mobile phone users in Gujarat Telecom Circle on by focusing on mobile phone users' perception and their behavior related to MNP. The primary data were collected on the basis of current mobile phone users in Gujarat Telecom Circle. The data was analyzed by z-test and reflecting mobile phone users' perception and switching barriers that discouraged them from switching operator. The findings put forward implications for telecom companies.

Objectives of the Study

Present study focus on:

- To know the perception of mobile phone service users towards Mobile Number Portability.
- To identify the problems faced by Mobile Phone Service users during services.
- To know the satisfaction level of the customers using Mobile Number Portability.

Methodology Followed

Research Design

The present research study used exploratory-cum-descriptive research design.

Region Selected

The sample size of the study was 150 respondents of three districts (Jind, Rohtak and Sirsa) of Haryana State. Random sampling method was used during the research. A well structured questionnaire was used to make work convenience.

Factors Used For Data Analysis

- Existing Service provider
- Mode of mobile connection
- Satisfaction among existing mobile connection
- Expectation from new service provider
- Problems during portability
- Source of awareness
- Satisfaction after portability

Data Collection

Data was collected from primary as well as secondary source. The data was collected from users belonging to the different age groups. A well-structured questionnaire was used for collection of data.

(Insert Table No. 1)

Table 1 shows that 138 respondents (92.0 per cent) having prepaid connection and 12 respondents (8.0 per cent) having postpaid connection. Descriptive statistics depict that Mode is 1 and S.D. is 0.27. There is no significant difference among the customers' perception towards the mode of mobile connections (prepaid and postpaid connection, $p= 0.00<0.05$) by objecting the hypothesis that customers' prefer to use different mode of mobile connection.

(Insert Table No. 2)

Table 2 shows that 39 respondents (26.0 per cent) are willing to switch over to any other service network for package plan and 52 respondents (34.7 per cent) are not willing to switch over. Descriptive statistics depict that Mode is 4.49 and S.D. is 3.66 for package plan and so on. There is no significant difference among the customers' perception towards the reasons of willing to switch over to any other service network (SMS plan, $p= 0.00<0.05$), (MMS plan, $p= 0.00<0.05$), (Voice Clarity, $p= 0.00<0.05$) and so on by objecting the hypothesis that customers' prefer to use different types of mobile connection.

(Insert Table No. 3)

Table 3 shows that 74 respondents (49.3 per cent) have faced the problem during mobile number portability and 76 respondents (50.7 per cent) have not faced any problem. Descriptive statistics depict that Mode is 2 and S.D. is 0.50.

(Insert Table No. 4)

Table 4 shows that 30 respondents (20.0 per cent) are facing shifting the balance during mobile number portability and 45 respondents (30.0 per cent) are not facing any problem. Descriptive statistics depict that Mode is 9 and S.D. is 3.72 for shifting the balance and so on. There is no significant difference among the customers' perception towards the problem during mobile number portability (Shifting the balance, $p= 0.00<0.05$), (Lengthy process of submission of document, $p= 0.00<0.05$) and so on by objecting the hypothesis that customers' having problems during mobile number portability.

(Insert Table No. 5)

Table 5 Depicts that 81 respondents (54.0 per cent) are satisfied with network connection after changing service provider and 4 respondents (2.7 per cent) are strongly dissatisfied with the same. Descriptive statistics shows that Mean is 1.64 and S.D. is 0.84 for network connection.

Conclusion And Suggestions

All over the world Mobile number portability gaining lots of interest from a variable number of customers. It provides facility to new comers according to their need. Network that provides best calling plans, SMS plans, roaming plans and 3G internet services easily attracts the attention of peoples during portability process. Customers' form three districts of Haryana (Jind, Rohtak and Sirsa) prefer prepaid connection. Present investigation indicates the customer perception and problems towards MNP and their level of satisfaction with mobile number portability.

- Most of the sample respondents were young age and low income category. To attract the low income and high income group of people, the case firm should provide more schemes and offers as provided by its competitors to increase the Mobile number portability respondents.
- Considerable share of the respondents were aware of MNP through Advertisement, friends and relatives, so the case firm should provide promotions like offers and discounts for the persons who motivate their relatives and friends to avail MNP.
- Major share of the respondents stated that poor coverage and no promotion and offers as their major problem in their past service. The case firm should concentrate more on sufficient coverage.
- The sales person also should be trained to communicate the promotions effectively to non-customers in a friendly manner and not as product pusher.

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Table No. 1 Responses Regarding Mode of Mobile Connection

N / %	Prepaid connection	Postpaid connection	Total	Mode	S.D.	Chi Square df=1	Asymp. Significant
N	138	12	150	1.00	0.27	105.84	0.00*
Per cent	92.0	8.0	100				

Table No. 2 Reasons of Switch over To Any Other Mobile Service Network

Statement	N / %	Yes	No	Total	Mode	S.D.	Chi Square df=2	Asymp. Significant
Package Plan	N	39	52	91	4.49	3.66	4.12	0.12*
	%	26.0	34.7	60.7				
SMS Plan	N	21	70	91	4.61	3.55	26.44	0.00*
	%	14.0	46.7	60.7				
MMS Plan	N	9	82	91	4.69	3.48	55.72	0.00*
	%	6.0	54.7	60.7				
Voice clarity	N	32	59	91	4.54	3.62	9.72	0.00*
	%	21.3	39.3	60.7				
Premium offer	N	30	61	91	4.55	3.61	12.04	0.00*
	%	20.0	40.7	60.7				
Discount offer	N	30	61	91	4.55	3.61	12.04	0.00*
	%	20.0	40.7	60.7				
E-cash Payment	N	29	62	91	4.56	3.60	13.32	0.00*
	%	19.3	41.3	60.7				

service								
Easy recharge	N	28	63	91	4.56	3.59	14.68	0.00*
	%	18.7	42.0	60.7				
3G Service	N	47	44	91	4.44	3.70	2.52	0.28
	%	31.3	29.3	60.7				
Recharge Voucher's	N	18	73	91	4.63	3.54	32.68	0.00*
	%	12.0	48.7	60.7				
Roaming facility	N	17	74	91	4.64	3.53	34.92	0.00*
	%	11.3	49.3	60.7				
Customer care facility	N	16	75	91	4.64	3.52	37.24	0.00*
	%	10.7	50.0	60.7				
Additional service	N	4	87	91	4.72	3.45	71.32	0.00*
	%	2.7	58.0	60.7				
Any other	N	4	87	91	4.72	3.45	71.32	0.00*
	%	2.7	58.0	60.7				

*Significant at .05 significance level.

Table No. 3 Responses towards Problem Faced during Mobile Number Portability

N /	Yes	No	Total	Mode	S.D.	Chi	Asymp.

%						Squaredf=1	Significant
N	74	76	150	2.00	0.50	0.02	0.87
Per cent	49.3	50.7	100				

Table No. 4

Responses towards Problem during Mobile Number Portability

Statement	N / %	Yes	No	Total	Mode	S.D.	Chi Square df=2	Asymp. Significant
Shifting The Balance	N	30	45	150	9	3.72	21.00	0.00*
	%	20.0	30.0	100				
Lengthy Process	N	13	62	150	9	3.60	42.76	0.00*
	%	8.7	41.3	100				
Regular Agent Calls	N	18	57	150	9	3.64	33.96	0.00*
	%	12.0	38.0	100				
Block The Number	N	28	47	150	9	3.71	22.36	0.00*
	%	18.7	31.3	100				
Billing Problem	N	23	52	150	9	3.68	27.16	0.00*
	%	15.3	34.7	100				

Proof/Document Submission	N	13	62	150	9	3.60	42.76	0.00*
	%	8.7	41.3	100				
Any Other	N	7	68	150	9	3.56	55.96	0.00*
	%	4.7	45.3	100				

*Significant at .05 significance level.

Table No. 5

Responses towards Satisfaction after Changing Service Provider

Statement	**N / %**	**S**	**S S**	**N**	**D**	**S D**	**Total**	**Mean**	**S.D.**
Network Connection	N	81	54	11	0	4	150	1.64	0.84
	%	54.0	36.0	7.3	0	2.7	100		
Customer Service	N	55	62	19	5	9	150	2.0	1.08
	%	36.7	41.3	12.7	3.3	6.0	100		
Voice Clarity	N	35	57	47	9	2	150	2.24	0.92
	%	23.3	38.0	31.3	6.0	1.3	100		
Network	N	53	40	40	10	7	150	2.18	1.1

Coverage	%	35.3	26.7	26.7	6.7	4.7	100		3
Discount Offer	N	33	28	43	28	18	150	2.80	1.30
	%	22.0	18.7	28.7	18.7	12.0	100		
Premium Offer	N	32	25	46	32	15	150	2.82	1.26
	%	21.3	16.7	30.7	21.3	10.0	100		
Service Package	N	22	37	30	27	34	150	3.09	1.38
	%	14.7	24.7	20.0	18.0	22.7	100		
Additional Facility	N	24	30	39	22	35	150	3.09	1.38
	%	16.0	20.0	26.0	14.7	23.3	100		

(Satisfied= S, Strongly satisfied= S S., Neutral= N, Dissatisfied= D)