

# Integrated Technology For Consumer Choice Impact On Mobile Number Portability

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**Abstract:** Mobile network communications market India is world's second-biggest and last few decades Indian is strongly developed in communications market .the ongoing information and the data proposes that this industry has put on a show of being the world's quickest developing industry. The subscriber's mobile numbers is transmitting the subscription from one service provider to another service provider it can be based on the ability the ability of the subscriber's Mobile number portability (MNP).It's improve the competition by enabling customers to change service providers and keeping up the previous mobile phone number. To recognize the factors that affects the customers into exchanging the service provider. Primary and secondary data collected through websites, journals and structured questionnaire from 170 members

**Index Terms:** Number Portability, Mobile Services and Telecommunications

## 1 INTRODUCTION

### 1.1. Telecom Industry

Indian telecom area is over 165 years of age it has been introduced by 1851 with the primary operational land lines but it was officially setup in India in 1881.From that point forward, this has been uprising pattern and in the ongoing occasions it is has encountered an upheaval and has gauge far later on. Likewise, in 2016, the worldwide media transmission administrations segment delayed to be a main IT spending market. Inferable from the all out overall IT spending, by 2017, it is anticipated that versatile information would involve 45% of the all out telecom administrations market

### 1.2. Mobile Number Portability

The retain subscriber's telephone numbers capacity has been depicting the Mobile number portability (MNP) and its changing the membership one portable specialist organization to the next. It grants rivalry by enabling buyers to switch specialist organizations, as yet keeping up their previous cell phone number. The MNP provides the conspires of one to another operators for one network to another network roaming facility for the same portable number. In this connection the service providers need to hold consumer they will provide novel offers. As per the statistical surveying firm iSuppli Corp, 97% Indians would own a mobile by 2016 Cell phones have turned into an integral part of the life of the individuals. Two types of organization namely, cell phone instrument producers and system specialist co-ops or Mobile Service Providers (MSP) are gaining gigantic income because of expanding request of cell phones. To avail network services are unavoidable when customers purchase cell phones. Consumers purchase SIM cards of the organizations which offer them additional advantages.

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Customers are consistently in a quest for better service provider as far as more grounded signal quality, good call rates and additionally SMS charges, CDMA or GSM choice, bunch membership conspire, quicker customer care support, extra Value Added Services and so forth.

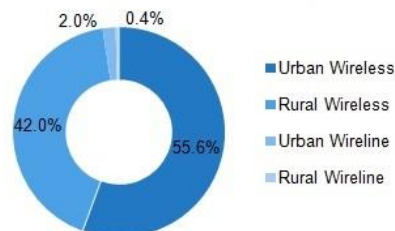
### 1.3. MNP Time-Line in India

- ✓ On 01/08/2008, Government issued guidelines for Mobile Number Portability service license, considering recommendations of TRAI.
- ✓ On 30/06/2009, Mobile Number Portability draft regulations were placed on TRAI website for consultation with the stakeholders with solicitation deadline-31/07/2009.
- ✓ On 23/09/2009, The Telecommunication Mobile Number Portability Regulations, 2009 issued by TRAI (8 of 2009).
- ✓ On 31/12/2009, was fixed as a date by which Mobile Number Portability shall be implemented in Metros & category 'A' service areas.
- ✓ On dated 28/01/2010, TRAI issued the Telecommunications Regulations related to the Mobile Number Portability (Amendment), 2010 (1 of 2010).
- ✓ 20/03/2010 was fixed as a date by which Mobile Number Portability to be implemented in all over country.
- ✓ TRAI framed the Mobile Number Portability regulations considering stakeholders' views and comments.

**On 20/01/2011, Mobile Number Portability comes into effect.**

**Government Initiatives:**

Composition of telephone subscribers (FY16)



Source: Telecom Regulatory Authority of India, TechSci Research

- ✓ The Government has initiated reforms in the telecom division and keeps on being proactive in giving space to development for telecom organizations

Age					
		Frequency	Percent	Valid%	Cumulative %
Valid	18	20	11.8	11.8	11.8
	19	75	44.1	44.1	55.9
	20	50	29.4	29.4	85.3
	21	15	8.8	8.8	94.1
	23	5	2.9	2.9	97.1
	24	5	2.9	2.9	100.0
	Total	170	100.0	100.0	

In India, prepaid and post paid services are offered by 14 big and small service providers. Thus, let us take a gender best case scenario GSM and CDMA mobile cellular network in India

## 2. REVIEW OF LITERATURE

Klemperer (1995) defines Consumers are less attracted by a price cut and have less elastic demand. Consumers are less attracted by reduced price and they have less elastic demand. The overall effect of reduction in switching costs is unclear.

Dong HeeShin (2006) conducted an investigation on 684 U.S. cell phone subscribers to know the discernment and conduct of endorsers and its impact of Mobile Number Portability. It was discovered that exchanging obstructions, for example, exchanging cost and other shrouded expenses were seen high by the endorsers. Mobile companies utilized lock-in strategy to ruin exchanging by the customers. The discoveries infer that Mobile Number Portability has all the more straight forwardly influenced the businesses to a more prominent degree than supporters. Mohammed Sohel Islam (2008), identified the relation with corporate image, trust, loyalty of Customer and switching cost. The exploration finds that although all the independent factors, exchanging cost, corporate picture, and trust have certain level of association with the reliant variable, Customer unwaveringness, just trust has the most grounded association with Customer loyalty

## 3. Objectives Of The Study

1. Identification of factors to affects the customers into switching the service provider
2. Identify the level of satisfaction and dissatisfaction respondents with respect to service provider.

## 4. METHODOLOGY

### 4.1. Hypothesis

H0: There is no significant relationship between the factors & changing of networks by mobile users

H1: There is significant relationship between the factors & changing of networks by mobile users

### Sources of data:

For this research data used is the both the primary and secondary data

**Primary data:** The primary data was taken through a structured questionnaire

**Secondary data:** The secondary data are websites and brochures

### Sampling frame:

**Size:** The sampling size for the present research work is considered to be 170 members.

**Population** For the present research work population includes all the members

**Sampling technique:** Simple random sampling technique is being used

### 1. Age of respondents

#### Interpretation:

Done the data collection through offline and online. Majority of the respondents are the age of 19&20.

### Gender of the respondents

Respondents of the Gender

Gender					
		Frequency	Percent	Valid %	Cumulative %
Valid	Male	60	35.3	35.3	35.3
	Female	110	64.7	64.7	100.0
	Total	170	100.0	100.0	

#### Interpretation:

Most of the respondents were females with percent of 64.7, whereas males with percent of 35.3.

### Occupation:

Occupation					
		Frequency	Percent	Valid %	Cumulative %
Valid	1	165	97.1	97.1	97.1
	2	5	2.9	2.9	100.0
	Total	170	100.0	100.0	

#### Interpretation:

Students were in majority with a percent of 97.1, next professionals with percent of 2.9

### 1. Which Mobile network connection do you own?

@1 Which mobile now connection do you own					
		Frequency	Percent	Valid %	Cumulative %
Valid	1	80	47.1	47.1	47.1
	2	25	14.7	14.7	61.8

	3	40	23.5	23.5	85.3
	4	20	11.8	11.8	97.1
	5	5	2.9	2.9	100.0
	Total	170	100.0	100.0	

**Interpretation:**

From the above chart we can observe that 47.1 of the respondents use the Airtel, 23.5% use Idea, 14.7% use Vodafone India, and 11.8% use jio.

**2. Which is the mode of your connection?**

@2 Which is the mode of your mobile connection					
		Frequency	Percent	Valid %	Cumulative %
Valid	1	145	85.3	85.3	85.3
	2	25	14.7	14.7	100.0
	Total	170	100.0	100.0	

**Interpretation**

From the above chart we can conclude that majority of members use the prepaid connection with a percent of 85.3

**3. Do you know mobile portability?**

@3 Do you know mobile portability					
		Frequency	Percent	Valid %	Cumulative %
Valid	1	130	76.5	76.5	76.5
	2	40	23.5	23.5	100.0
	Total	170	100.0	100.0	

**Interpretation:**

76.3% of respondents know the mobile number portability.

**4. Have you switched to any other networks?**

@3 Have you switched to any other now					
		Frequency	Percent	Valid %	Cumulative %
Valid	1	140	82.4	82.4	82.4
	2	30	17.6	17.6	100.0
	Total	170	100.0	100.0	

**Interpretation:**

82.4% of members used the mobile number portability.

**5. If yes to above question which network you switched to?**

@5 if yes to above question which network you switched to					
		Frequency	Percent	Valid %	Cumulative %
Valid	1	65	38.2	38.2	38.2

	2	15	8.8	8.8	47.1
	3	30	17.6	17.6	64.7
	4	50	29.4	29.4	94.1
	5	5	2.9	2.9	97.1
	6	5	2.9	2.9	100.0
	Total	170	100.0	100.0	

**Interpretation:**

38.2% shifted to Airtel  
29.4% to Idea  
17.6% to Jio  
8.8% to Vodafone

**6. If you are willing to switch, what is the reason for switching?**

@6 if you willing to switch what is the reason for switching					
		Frequency	Percent	Valid %	Cumulative %
Valid	1	45	26.5	26.5	26.5
	2	60	35.3	35.3	61.8
	3	65	38.2	38.2	100.0
	Total	170	100.0	100.0	

**Interpretation**

38.2% of members are don't want to shift to any other network, where as 35.3 are not stratified with the present network and they are ready to use the change the network operator.

**7. Your family and friends are influenced you to switch networks?**

@7 your family and friend are influenced you to switch networks					
		Frequency	Percent	Valid %	Cumulative %
Valid	1	15	8.8	8.8	8.8
	2	100	58.8	58.8	67.6
	3	40	23.5	23.5	91.2
	4	10	5.9	5.9	97.1
	5	5	2.9	2.9	100.0
	Total	170	100.0	100.0	

**Interpretation:**

58.8% members agree to this question that they are influenced by their family and friends to change the network operator.

**8. Due to high internet charges (3G/4G) you switched the networks?**

@ 8 due to high internet charges 3G 4G you switched networks					
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		Frequency	Percent	Valid %	Cumulative %
Valid	1	20	11.8	11.8	11.8
	2	95	55.9	55.9	67.6
	3	15	8.8	8.8	76.5
	4	35	20.6	20.6	97.1
	5	5	2.9	2.9	100.0
	Total	170	100.0	100.0	

**Interpretation:**

55.9% agrees this question that due to high internet charges is one factor they want to shift.

**4.2. Testing of Hypothesis**

**1. Number of persons willing to switch networks**

Crosstab						
Count						
@9 if you willing to switch what is the reason for switching						Total
		1	2	3		
Gender	Male	19	18	23		60
	Female	26	42	42		110
Total		45	60	65		170

Chi-Square Tests				
	Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square	1.682 <sup>a</sup>	2	.431	
Likelihood Ratio	1.677	2	.432	
Linear-by-Linear Association	.378	1	.538	
N of Valid Cases	170			

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.88.

**2. Due to High internet charges (3G/4G)**

Crosstab							
Count							
@10 due to high internet charges 3G4G you switched networks							Total
		1	2	3	4	5	
Gender	Male	10	43	5	1	1	60
	Female	10	52	10	34	4	110
Total		20	95	15	35	5	170

Chi-Square Tests				
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	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.691 <sup>a</sup>	4	.000
Likelihood Ratio	28.993	4	.000
Linear-by-Linear Association	19.031	1	.000
N of Valid Cases	170		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.76.

**3. Due to High call rate packs**

Crosstab							
Count							
@ 11 due to high call rate packs you switched networks							Total
		1	2	3	4	5	
Gender	Male	26	20	1	13	0	60
	female	14	50	9	32	5	110
Total		40	70	10	45	5	170

Chi-Square Tests				
	Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square	23.179 <sup>a</sup>	4	.000	
Likelihood Ratio	24.585	4	.000	
Linear-by-Linear Association	11.674	1	.001	
N of Valid Cases	170			

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 1.76.

**4. Due to Bad network coverage**

Crosstab							
Count							
@12 due to bad networks coverage you switched networks							Total
		1	2	3	4	5	
Gender	Male	35	16	4	5	0	60
	Female	10	49	26	20	5	110
Total		45	65	30	25	5	170

Chi-Square Tests				
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	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.433 <sup>a</sup>	4	.000
Likelihood Ratio	51.941	4	.000
Linear-by-Linear Association	31.670	1	.000
N of Valid Cases	170		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.76.

## 5. RESULTS AND DISCUSSIONS

- a. It is observed that there is a relation between the factors and changing of network by mobile phone users.
- b. Bad network coverage, high internet charges (3G/4G), high call packs & family & friends are the most important factors which affects the mobile phone user.
- c. According to this study Airtel takes first place in more number of subscribers, idea takes second place, Jio third place.
- d. Another factor which effecting the customer not change the network is trusts. Indian more loyal to the brand.
- e. It is clear that high internet charges were one of the factors for shifting of network, so mobile service providers have to keep down the high packs to the reasonable packs. In order to satisfy the customer
- f. High call rate packs was also one of the factor, so network operator has to keep value for money packs in order to gain more satisfaction level of customers.
- g. Bad network coverage was also one of the problem for shifting of networks, so companies have to keep increase more towers and strength of the signal.

This research is to that what are the factors that influencing more on mobile phone users for changing the service operators, to analyses their satisfaction level with their current service providers, to know how many members are using the mobile number portability, And which network they changed to more. From this work, high call rates, high data packs, bad network coverage, friends and family are major ones for changing of the networks. When any company providing valve for money packs, they are slowly changing networks. But on other hand, more number of persons are very loyal to their companies, so this reason even a new company joined with destructive plans (jio), it will not effecting the existing users. But jio stands in fourth place among ten operators within three months not a simple thing. Other operators have to build more high quality packs and services in order to keep their existing and new customers.

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