

Effects of Mobile Number Portability in Telecom Sector - A Case Study of Idea Cellular Ltd

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Abstract

The Indian telecom industry is one of the fastest growing in the world and is projected that India will have 'billion plus' mobile users by 2015. This research study pull the attention on mobile number portability 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/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 aims to figure out the impact of mobile number portability 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.

Keywords: Mobile number portability (MNP), Indian Telecom Industry, Idea Cellular Ltd.

1. Introduction

Mobile Number Portability (MNP) is the process by which, customer can shift to another operator of his choice, but keeps his old number. Customers don't have to go through the trouble of informing all his friends & family that his number has changed - it stays the same. MNP is implemented in different ways across the globe. The international and European standard is for a customer wishing to port his/her number to contact the new provider (Recipient) who will then 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/her number is required to contact the Donor to obtain a Porting Authorisation Code (PAC) which he/she then has to give to the Recipient. Once having received the PAC the Recipient continues the port process by contacting the Donor. This form of porting is also known as 'Donor-Led' and has been criticised 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. This might lead to distortion of competition, especially in the markets with new entrants that are yet to achieve scalability of operation.

In India, MNP is launched recently which is Donor Led. Only the terminology is changed from PAC to UPC (Unique Porting Code). [11]

1.1 Evolution of MNP

The world's first country to introduce MNP was Singapore in 1997, followed by the UK, Hong Kong and the Netherlands in 1999. As of 2003, a number of other countries, especially in Europe, require MNP.

In India, MNP was implemented in a phased manner, and the first phase was to start in Metro cities and a circle by December 31, 2009, and the second phase, in the rest of the country by March 2010. The Government later decided to implement it in the entire country in one go by March 31, 2010. The launch of Mobile Portability Services was again extended to June 30, 2010, due to a lack of readiness of various stake holders. It was firstly introduce in HARYANA after awaiting service in India, in Nov 2010 and on 20 January 11 it was introduce to across the India including Madhya Pradesh.

2. Process of MNP: How to Change Mobile Operator?

Earlier the subscribers were hesitant to change their operators due to fear of loosing their existing mobile number, but now with the introduction of MNP subscribers can easily switch to new operator while retaining the same mobile number. But users cannot switch operator and retain number if they have been with that operator for less than three months. The Prepaid users have to loose their balance talk time if they switch to a different operator. The maximum downtime between deactivating the existing connection and starting the new connection will be a of two hours. TRAI has forwarded the responsibility to the Department of Telecommunications (DoT) to select an operator who will be licensed to manage an end-to-end MNP solution.

- Subscribers must pay up all pending bills before making an application for MNP.
- The porting fee is to be paid to the new operator.
- No payment is required to be given to the operator you are

leaving.

- According to TRAI the porting between mobile operators should be accomplished within four days. [11]

3. Benefits to Operators

Perhaps it is the mobile operators and specially the ‘new’ mobile operators who will receive the most out of the Mobile Number Portability in India. Following are some of them.

i. Users can now change the operators more easily: Users do not change the operators due to the problem that they will have to change the number as well. With Mobile Number Portability in India, this will no longer be the reason for pulling back the new operators in a telecom circle.

ii. Savings in expenses for reserving a number-series: Operators pay some price to reserve the number series in a telecom circle so that they can use the number series to create new mobile phone numbers. Due to the Mobile Number Portability, operators will no longer have to pay the price to reserve a specific number series in a particular zone, even if there are very few users using that series. This would mean cost savings.

iii. Less struggles for newcomers: If an operator is entering a new telecom zone, no need to struggle for a (relatively) long time for getting enough number of users to keep itself in business. Usually, new telecom operators offer better price to value ratio for the customers. Before Mobile Number Portability, they had to wait for a significant time before they could get sufficient number of users to sustain their business. Since Mobile Number Portability offers users a relatively faster and easier way to change operator, it is expected that it will play a significant role in getting new operators a good number of customers.

3.1 Other Benefits To Users

Mobile subscribers would be able to switch service provider while retaining their existing mobile number.

- Just for a small fee of ₹ 19/- customer can change to a new subscriber (Mobile Service Provider).
- Users can switch from GSM to CDMA and vice versa.

4. Overview of Idea Cellular in Mobile Number Portability

In January 2011, the Department of Telecommunications introduced the global practice of Mobile Number Portability (MNP) - an invite to customers to change their Wireless Operator, while retaining their mobile number.

It is noted that IDEA is the leader on the MNP space and is the biggest net gainer nationally. The overwhelming response from the consumers on MNP highlights a Company’s network quality, superior customer service and brand strength. However, the trends emerging from MNP are clearly distinguishing IDEA in terms of customers’ preference for better quality of services

and perception of brand value. With a net gain of over 930,000 subscribers (as on July 24, 2011) and lowest port-out ratio of only 58 subscribers against every 100 subscribers, IDEA leads the industry with respect to Mobile Number Portability. The success on MNP can be attributed to winning the MNP space in consumer’s mind. They were the first mover to promote MNP, highlighting their network quality, superior consumer service and brand strength, using the power of ‘No Idea, Get Idea’ campaign. [3] IDEA has been most successful on the MNP drive as its program is based on the insights that mobile consumer look for, a Pan India network offering seamless connectivity across the length and breadth of the country, accessible and humane customer care, accurate billing system, voice quality and low call drops. The overwhelming response from the Indian consumers on MNP reflects the power of these parameters, being delivered by your company.

According to the annual report of 2011-12 of company, IDEA has maintained its leadership position in terms of net subscriber additions under MNP facility. A net gain of around 2.9 million subscribers with a lowest port out ratio of 0.62 subscribers reflects the strong faith of over 113 million customers in your Company’s quality of network, better customer services, customer centric product offerings and superior brand strength. With the net gain of 2.9 mobile number subscribers since the launch of MNP and the lowest port-out ratio of 62 subscribers against every 100 port-in subscribers, Idea leads the Industry. The MNP leadership reflects customers’ preference for better quality of services and perception of brand value.

Idea’s success on MNP front clearly shows the strength of Company’s seamless network coverage, low call drop rate, better voice quality, advanced and precise billing systems, customer oriented call centers and innovative/competitive product offerings. [4]

5. Evaluation of MNP

This evaluation is done when MNP services were started in India.

Table 1. Mobile Number Portability in India as on 14-02-2011

Operators	Subscribers Ported In	Subscribers Ported Out	Net Gain / Loss
Vodafone	94,747	44,041	+ 50,706
Idea	74,978	43,011	+ 31,967
Aircel	36,650	14,574	+ 22,076
Airtel	77,240	60,970	+ 16,270
Bsnl	13,522	61,315	- 47,793
Reliance Gsm	1,664	35,663	- 33,999
Tata Indicom Cdma	1,573	26,251	- 24,678
Reliance	343	23,264	- 22,921

Source: MNP report India (2011)

Table 1 shows the number of ports gained or lost by different

operator in India after the implementation of MNP on January 20, 2011. Operators such as Vodafone, Aircel and Idea have attracted large number of customers, for these operators the number of Port IN is higher than the number of Port OUT's. On the other hand there are operators such as BSNL, Reliance GSM, and TATA Indicom CDMA who have lost most number of customers as a result of introduction of MNP; the number of Port IN is negligible when compared to the number of Port OUT's.

6. Rational of the Study

Now a days it is the revolution in telecom industry in India and most awaited services for consumers and it gives experience to know more about consumers mind and changes taking by telecom operators. It gives lots experience in understanding the impact of MNP on service providers and as well as on mindsets of customers.

6.1 Impact on Service Providers

- Competition among service providers will increase and profit margins are likely to erode, operators who have a strong customer base will be able to retain their customers by providing competitive tariffs.
- New service providers will find it easier to enter and survive in the market by providing competitive rates and Value Added Services.
- Service providers will also be able retain customer loyalty and build higher company value.
- The service providers will have better control over the quality of routing.

6.2 Impact on Subscribers

- Subscribers can now use one number throughout their life and have the flexibility of changing service providers if they are unhappy with the tariff, service, connectivity, etc.
- Subscribers are more likely to get efficient services at lower rates.
- A subscriber can make a porting request only after 90 days of activation of connection.
- Subscribers can also change operators within their registered circles only.

Overall, the impact on some operators like Reliance (leader in CDMA services), MTNL (first to launch 3G) and Tata Indicom, Idea, Bharti, Vodafone will be positive. MNP is expected to reduce the cost of switching operators, making the market more competitive. Even though there are both direct and indirect costs of introducing MNP, all cost-benefit studies project that the effect of MNP will be positive overall. Retail prices, termination charges, price elasticity, market shares, as well as entry and investment decisions are likely to be affected with the implementation of MNP.

7. What will Change with Mobile Number Portability

i. Growth rate of subscriber base – The regular news that we get of telecom adding 10Mn+ subscribers every month will slow down. Now most of the growth will come from more people taking up SIM than same people taking up more SIM. This also means ARPU (Average revenue per user) will rise.

ii. Avg. acquisition cost of customer – The acquisition cost set by telecoms will go down as the avg. life of SIM would decrease from 6 months (your SIM is de-activated if you do not recharge once in 6 months.) to 3 months (the minimum you need to stay with existing operator before porting.)

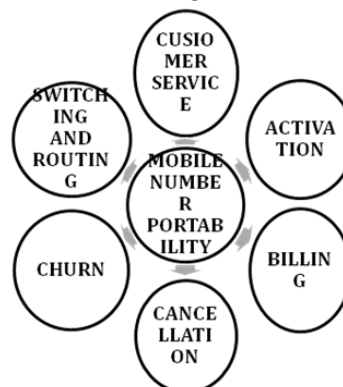
iii. More Margins for retailers – The local *panwala* where you bought your mobile talk time from has seen a margin of 13% back in 2005-06 which came down drastically to limited margins to below 5%. The market is now somewhere around 3-5%. What kept them going was that telecoms decreased the entry barrier for subscribers (Lifetime validity SIM was launched at Rs.1000, now it is even available for free) and started paying more to panwalas for acquisition. Industry is now again in talks for increasing the margins on recharge to keep a positive word of mouth going.

iv. Better Service – If a service provider ever had to choose between quality and cost, and they chose the earlier, now is the time that it pays off. Now that everyone is at the same price point, the key differentiator would come from quality of service.

v. Sales of Dual SIM phones – Most people have 2 SIMs to retain their old numbers for incoming and new number for better outgoing call rates. Now that number retention is addressed, Dual SIM handsets may see a drop in the long run.

Idea, the leader in Haryana, has already launched an aggressive campaign to make sure it is the destination post MNP. Do-como has also launched campaign and is working on user education. Whereas the larger players are still silent. The new entrants and smaller players will now get a chance to acquire customers that were out of their reach. Whereas, players like Loop Mobile (Mumbai Only) who have been banking on their age old subscriber base may even have a threat of being wiped out.

Fig.1. Factors affecting MNP



8. Review of Literature

According to Partiksinh Sureshsinh Vaghela (2012), the total number of subscribers opting for mobile number portability (MNP) has risen to 59.31 million, with Karnataka receiving the maximum number of 7.2 million requests till the end of July, according to official data. MNP allows users to switch operators while retaining their mobile numbers. "By the end of July 2012, about 59.31 million subscribers have submitted their requests to different service providers for porting their mobile number," the Telecom Regulatory Authority of India (Trai) said in a statement. Karnataka was followed by Andhra Pradesh and Rajasthan where 5.7 million and 5.6 million subscribers opted for the service. So it is necessary to understand characteristics and reasons of customer for using mobile number portability. These papers examine the consumer awareness and preference about mobile number portability and try to find out factors that motivate use of MNP. Result suggest respondents are not only aware about the MNP but they also know the procedure of using MNP and network coverage, customer care, quality of service are the main factors to switch over another service provider. [8]

In a study by Solomon Adeyemi Odunaike (2010), MNP is seen as a great opportunity which can increase acquisition and to a greater extent encourage healthy competition among telephone operators but the process, functionality, subsequent administration and maintenance is a complex one, involving the careful planning and balancing of factors such as cost, convenience, simplicity, speed, reliability, heterogeneous integration and robustness. The reduced tariff transparency, increased competitiveness and lower cost of call and inter-connection rate that would normally result from the introduction of MNP is a problem that could seriously affect the usability, affordability, on-line connection of mobile services for users and have great impact on the profit margin. Understanding impact and extents at which the students understand the implication of this project will inform the level of acceptability, promotes low cost mobile call rates and lower interconnection and on-line connection rate and charges, further enhanced their on-line activities and will be a major step towards implementing comprehensive on-line education in our institution. [9]

Increasing numbers of countries require mobile telephone networks to offer mobile number portability (MNP) (Atiya Faiz Khan, 2010). The term MNP allows customers who wish to switch mobile operator to keep their mobile numbers, avoiding the costs of switching to new numbers. Customers are predominantly reluctant to switch their network operator if this means that they would have to change their telephone number. Changing one's telephone numbers can be a major inconvenience and a potential barrier preventing the general public from taking advantage of the options available in a developed competitive telecommunications market. The implementation of number port-

ability initiatives in many key markets created new opportunities and improved the consumer's experience, but terminating calls into number-portability countries became more difficult, confusing and expensive as a result. The absence of number portability may therefore give the incumbent operators a significant competitive advantage over new entrants into the market. [1]

According to K. Kumaresh & S.praveena (2011), 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. Percentage analysis, Garrett ranking and Factor Analysis were used for this research. The results revealed that promotional offers, family orientation and service affordability is the most important factor influencing the mobile subscriber intention to switch service provider. From this study most of the respondents were satisfied with the Mobile Number portability. [5]

Nishat Anjum (2012) studied the realization of Mobile Number Portability. The factors such as cost, convenience, simplicity, speed, reliability and robustness are properly assessed to ensure that the administrative process that is implemented does not adversely affect the success of mobile number portability. We described the routing mechanism for Signaling Transfer Point migration for smooth call traffic flow. The article describes the design document for implementation the call routing at Idea Cellular Ltd. in Rajasthan. The system has become better manageable and the efficiency has been increased. [7]

Surabhi Jain (2011) provides an in-depth description of how it affects the switching cost for consumer, it also include various flavors of call routing implementation, mobile messages (SMS, MMS) to a number once it has been ported. Despite of so many networks why user wants to switch to other network will be discussed in this paper. The research paper addressed various arguments related to the pros and cons of mobile number portability such as How Could MNP Disrupt Mobile Service Providers and how can Mobile Service Providers Benefit from MNP? A more pronounced effect of MNP is likely to be an increased focus on improving the customer experience. The research papers also give an insight into the disruptive effect of MNP on Indian Telecom Industry. [10]

Mobile number Portability helps mobile phone subscribers to change from one mobile operator to another without changing mobile phone number (B.K. Suthar et al. ,2012). 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. [2]

9. Research Methodology

The study is a descriptive study. Questionnaire is designed to collect the data from various mobile users and Idea officials.

9.1 Objectives Of The Study

- To study the impact of number portability on service providers & service users.
- To study the effect of no. portability on sale in IDEA cellular Ltd.
- To study the strategy adopted by the IDEA cellular to retain their costumers after Number Portability.
- To study the strategy adopted by the IDEA to attract more customers towards them.

9.2 Hypothesis

- After MNP, service providers will face difficulties in retaining their existing customers.
- Service users may enjoy better quality of services after MNP.
- MNP may affect sales of IDEA positively due to his quality of services.
- Strategies adopted by the IDEA to retain and attract customers will be successful.

9.3 Sampling Plan

- Sampling Unit: Target groups (mobile users and idea officials)
- Sample Size: 200 (150 Users and 50 idea officials)
- Research Approach: Survey (Primary data is collected through self structured questionnaire).

10. Questionnaire

10.1 Questionnaire for IDEA officials

1. MNP generates perfect competition among the service providers?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	33	66
2	Strongly Disagree	02	04
3	Agree	11	22
4	Disagree	04	08
Total		50	100

$$\chi^2 = 48.4 \quad df=3, \quad \chi^2 (.05) = 7.81$$

When asked to the IDEA officials that MNP generates perfect competition among the competing firms at the market, majority of 66% users were strongly agree and only 4% were strongly disagree. Apart from it 22% of users were agree and said that MNP generates fair competition and only 8% were disagree. The chi square value clearly indicates that opinion of the respondents was significantly different about the fact of generating perfect

competition due to MNP.

2. Entry of new service provider has become easy after the introduction of MNP?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	20	40
2	Strongly Disagree	11	22
3	Agree	9	18
4	Disagree	10	20
Total		50	100

$$\chi^2 = 6.16 \quad df=3, \quad \chi^2 (.05) = 7.81$$

When asked to the IDEA officials about the entry of new service provider after MNP, the majority of 40% of them were strongly agree and 22% were strongly disagree and said that It will not affect the market and 18% were agree and 20% 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.

3. Is IDEA providing "service guarantee" for attracting new customers?

S.no.	Opinion	No.	Percent (%)
1	Yes	30	60
2	No	20	40
Total		50	100

$$\chi^2 = 2 \quad df=1, \quad \chi^2 (.05) = 3.84$$

On asking to the officials of IDEA that Is IDEA providing "service guarantee" for their potential customers, then group of 60% said yes and only 40% 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.

4. MNP forces operators to think on segmentation in the pre-paid market?

S.no.	Opinion	No.	Percent (%)
1	Strongly agree	17	34
2	Strongly disagree	13	26
3	Agree	15	30
4	Disagree	05	10
Total		50	100

$$\chi^2 = 6.64 \quad df=3, \quad \chi^2 (.05) = 7.81$$

On asking to the staff of IDEA that MNP enhances segmentation in the prepaid market, 34% of respondents were strongly agree and 26% of respondents were strongly disagree about it and 30% were agree and said that it increases segmentation in the prepaid market and 10% were disagree about that. The chi

square value clearly indicates that opinion of the respondents was significantly identical when it comes to segmentation in the pre-paid market.

5. Low prices and easy process for availing MNP services allow users to subscribe new operator?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	15	30
2	Strongly Disagree	10	20
3	Agree	14	28
4	Disagree	11	22
Total		50	100

$\chi^2 = 1.36$ df=3, $\chi^2 (.05) = 7.81$

When it is asked to the officials of IDEA that low price for availing MNP is the reason of switching behavior of consumers, mass of 30% were strongly agree and only 20% were strongly disagree on this fact and 28% respondents were agree but 22% were disagree by this statement. The chi square value radically shows that the opinion of respondents was significantly similar when talking about subscribing new operator due to low prices.

6. Existing customers of IDEA migrates to another operator because of its tariff plans?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	08	16
2	Strongly Disagree	16	32
3	Agree	15	30
4	Disagree	11	22
Total		50	100

$\chi^2 = 3.28$ df=3, $\chi^2 (.05) = 7.81$

On asking to the employees of IDEA that tariff plans of IDEA is the reason of customer migration then only 16% were strongly agree and as a group of 32% were strongly disagree and said that IDEA provides affordable tariff plans and 30% respondents were agree and 8% were disagree about it. The chi square value clearly indicates that the opinion of respondents was significantly identical.

7. Sale of IDEA increased because of disturbance free network backed by state-of-the-art customer service setup?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	22	44
2	Strongly Disagree	04	08
3	Agree	14	28
4	Disagree	10	20
Total		50	100

$\chi^2 = 13.68$ df=3, $\chi^2 (.05) = 7.81$

When it is asked to the IDEA officials IDEA provides distur-

bance free network with good service backup, majority of 44% of respondents were strongly agree and 8% were strongly disagree on this fact and also collectively 28% respondents were agree and only 20% were disagree by this statement. The chi square value indicates that the opinion of respondents was significantly different at the time of asking a question about the disturbance free network backed by state-of-the-art customer service setup.

8. Idea connected rural, far flung and urban areas by setting up new network towers after MNP?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	18	36
2	Strongly Disagree	10	20
3	Agree	11	22
4	Disagree	11	22
Total		50	100

$\chi^2 = 3.28$ df=3, $\chi^2 (.05) = 7.81$

When it is asked to the employees of IDEA that is IDEA setting up new network towers after MNP, 36% were strongly agree and 20% were strongly disagree about this fact and collectively 22% respondents were agree and disagree. Also the chi square value fundamentally shows that the opinion of respondents was significantly equivalent when talking about the new network towers for connecting peoples from different places.

9. IDEA focuses on retaining their high average revenue per user (ARPU) postpaid customers?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	13	26
2	Strongly Disagree	11	22
3	Agree	20	40
4	Disagree	06	12
Total		50	100

$\chi^2 = 8.08$ df=3, $\chi^2 (.05) = 7.81$

When asked to the respondents that IDEA focuses on retaining their high average revenue per user (ARPU) postpaid customers, 26% were strongly agree and only 22% and 12% were strongly disagree and disagree and majority of 40% respondents were agree with the statement. The chi square value clearly point out that the opinion of respondents was significantly different on ARPU.

10. Customer demographics (Age, Gender, Marital status) and brand have significant dependency on switching behavior of customers?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	21	42

2	Strongly Disagree	05	10
3	Agree	12	24
4	Disagree	12	24
Total		50	100

$$\chi^2 = 10.32 \quad df=3, \quad \chi^2 (.05) = 7.81$$

On asking to the respondents that Customer demographics and brand have significant dependency on switching behavior of customers, 42% of them were strongly agree and only 10% were strongly disagree while as a group of 24% people were agree and disagree with the statement. Also chi square value depicts that the opinion of respondents was significantly different at the time of asking a question switching behavior due to customer demographics and brand.

11. IDEA provides low international tariffs with value added services for retaining its existing customers?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	10	20
2	Strongly Disagree	15	30
3	Agree	16	32
4	Disagree	09	18
Total		50	100

$$\chi^2 = 2.96 \quad df=3, \quad \chi^2 (.05) = 7.81$$

When it is asked to the staff members of IDEA that IDEA provides low international tariffs with value added services, 20% were strongly agree and 30% were strongly disagree and 32% were agree said that idea provide this service and only 18% were disagree by this statement. The chi square value completely shows that the opinion of respondents was significantly identical when it comes to low international tariffs with value added services.

12. IDEA offers packages which have a lot of free talk time and data rolled in it to its end users?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	05	10
2	Strongly Disagree	16	32
3	Agree	14	28
4	Disagree	15	30
Total		50	100

$$\chi^2 = 6.16, \quad df=3, \quad \chi^2 (.05) = 7.81$$

On asking to the officials that IDEA offers packages which have a lot of free talk time and data rolled in it then only 10% of respondents were strongly agree and 32% of respondents were strongly disagree about it while 28% agreed and accepted that they prefer IDEA because of this service and 30% were disagree.

The chi square value represents that the opinion of the respondents was significantly identical.

10.2 Questionnaire for users

1. MNP helps in removing monopoly from the marketplace?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	80	53.33
2	Strongly Disagree	20	13.33
3	Agree	30	20
4	Disagree	20	13.33
Total		150	100

$$\chi^2 = 65.88 \quad df=3, \quad \chi^2 (.05) = 7.81$$

When it is asked to the users of IDEA that MNP helps in removing monopoly from the marketplace, 53.33% were strongly agree and 13.33% were strongly disagree about this fact and 20% respondents were agree and again 13.33% were disagree. Also the chi square value primarily shows that the opinion of respondents was significantly different when talking about the removing monopoly from the market.

2. Most of the customers change their operator towards IDEA cellular due to good network coverage?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	60	40
2	Strongly Disagree	43	28.67
3	Agree	36	24
4	Disagree	11	7.33
Total		150	100

$$\chi^2 = 33.39 \quad df=3, \quad \chi^2 (.05) = 7.81$$

On asking to the respondents that customers change their operator towards IDEA cellular due to good network coverage, 40% of them were strongly agree and only 28.67% were strongly disagree while as a group of 24% people were agree and only 7.33% disagree with the statement. Also chi square value depicts that the opinion of respondents was significantly different at the time of asking a question on acquiring IDEA after MNP.

3. MNP is good because it provides choice to change the operator while retaining existing number?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	93	62
2	Strongly Disagree	15	10
3	Agree	22	14.67
4	Disagree	20	13.33
Total		150	100

$$\chi^2 = 110.2 \quad df=3, \quad \chi^2 (.05) = 7.81$$

When asked to the respondents that MNP provides choice

to change the operator while retaining existing number, majority of 62% were strongly agree and only 10% were strongly disagree and 14.67% of respondents were agree and 13.33% disagree with the statement. The chi square value clearly point out that the opinion of respondents was significantly different on this service.

4. Satisfaction at affordable prices is the reason of switching behavior of customers?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	57	38
2	Strongly Disagree	44	29.33
3	Agree	30	20
4	Disagree	19	12.67
Total		150	100

$\chi^2 = 21.78$ $df=3$, $\chi^2 (.05) = 7.81$

On asking to the users that Satisfaction at affordable prices is the reason of switching behavior of customers then 38% of respondents were strongly agree and 29.33% of respondents were strongly disagree about it while 20% agreed and accepted that satisfaction is the key issue in switching behavior and 12.67% were disagree. The chi square value represents that the opinion of the respondents was significantly different.

5. MNP provides freeness from retaining or purchasing another SIM card of new service provider?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	41	27.34
2	Strongly Disagree	39	26
3	Agree	37	24.67
4	Disagree	33	22
Total		150	100

$\chi^2 = 3.86$ $df=3$, $\chi^2 (.05) = 7.81$

When it was asked to the users that MNP provides freeness from retaining or purchasing multi SIM cards, 27.34% were strongly agree and 26% were strongly disagree and 24.67% were agree said that they have no need to keep multi SIM cards due to MNP and only 22% were disagree by this statement. The chi square value completely shows that the opinion of respondents was significantly identical on this fact.

6. Sale of IDEA increased after MNP because of its brand value and services?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	82	54.67
2	Strongly Disagree	05	3.33
3	Agree	39	26
4	Disagree	24	16

Total		150	100
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$\chi^2 = 85.88$ $df=3$, $\chi^2 (.05) = 7.81$

On asking to the customers that Sale of IDEA increased after MNP because of its brand value and services, 54.67% of respondents were strongly agree and only 3.33% of respondents were strongly disagree about it and 26% were agree and 16% were disagree about that. The chi square value radically shows that opinion of the respondents was significantly different when it comes to choosing IDEA due to brand value and services.

7. Customer oriented call centers and innovative/competitive service offers helps in enhancing the sale of IDEA?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	35	23.33
2	Strongly Disagree	49	32.67
3	Agree	26	17.33
4	Disagree	40	26.66
Total		150	100

$\chi^2 = 7.36$ $df=3$, $\chi^2 (.05) = 7.81$

On asking to the users that IDEA offers Customer oriented call centers and innovative/competitive services, then only 23.33% were strongly agree and as a group of 32.67% were strongly disagree and 17.33% respondents were agree and 26.66% were disagree about it. The chi square value clearly indicates that the opinion of respondents was considerably identical.

8. Do you think that IDEA campaign “No Idea, Get Idea” helps in retaining and attracting potential customers?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	83	55.33
2	Strongly Disagree	06	4
3	Agree	29	19.33
4	Disagree	32	21.33
Total		150	100

$\chi^2 = 84.38$ $df=3$, $\chi^2 (.05) = 7.81$

When it was asked to the telecom users that IDEA campaign “No Idea, Get Idea” helps in retaining and attracting potential customers, mass of 55.33% and 19.33% were strongly agree and agree respectively and said that this is the one of the influence creator campaign of IDEA and only 4% and 21.33% were strongly disagree and disagree respectively by this statement. The chi square value radically shows that the opinion of respondents was significantly different when talking about IDEA campaign.

9. IDEA provides accurate billing system, Voice quality and low call drops for customer retention?

S.no.	Opinion	No.	Percent (%)
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1	Strongly Agree	39	26
2	Strongly Disagree	37	24.67
3	Agree	58	38.67
4	Disagree	16	10.67
Total		150	100

$$\chi^2 = 23.58 \quad df=3, \quad \chi^2 (.05) = 7.81$$

On asking to the users that IDEA offers accurate billing system, Voice quality and low call drops, then 26% were strongly agree and 24.67% were strongly disagree and as a group of 38.67% respondents were agree and 10.67% were disagree about it. The chi square value clearly indicates that the opinion of respondents was significantly different.

10. Customer subscribes IDEA for network quality, customer care service and brand strength?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	55	36.67
2	Strongly Disagree	21	14
3	Agree	64	42.67
4	Disagree	10	6.67
Total		150	100

$$\chi^2 = 54.3 \quad df=3, \quad \chi^2 (.05) = 7.81$$

On asking to the customers that they subscribe IDEA for network quality, customer care service and brand strength, 36.67% of respondents were strongly agree and only 14% of respondents were strongly disagree about it and collectively 42.67% were agree and 6.67% were disagree about that. The chi square value radically shows that opinion of the respondents was significantly different when it comes to choosing IDEA due to network quality, customer care service and brand strength.

11. Customers attracted toward IDEA because it was the first promoter of MNP?

S.no.	Opinion	No.	Percent (%)
1	Strongly Agree	69	46
2	Strongly Disagree	47	31.33
3	Agree	25	16.67
4	Disagree	09	6
Total		150	100

$$\chi^2 = 54.68 \quad df=3, \quad \chi^2 (.05) = 7.81$$

On asking to the users that they prefer IDEA because it was the first promoter of MNP, then majority of 46% of respondents were strongly agree and 31.33% of respondents were strongly disagree about it while 16.67% agreed and only 6% were disagree. The chi square value represents that the opinion of the respondents was significantly different in choosing idea because of being a first promoter of MNP.

11. Findings

- In this highly competitive scenario in the telecom sector, MNP generates fair competition among the small as well as giant player of the telecom sector. At the time of implementation of MNP, IDEA was the second best alternative of the users.
- MNP offers easy entry for new service providers but the consideration should be given on sustainability not only on an easy entry.
- Since Idea is an older and giant player of the telecom sector and being the best in terms of customer preference, Idea is providing service guarantee.
- Because the users of MNP services are young, teenagers and couples etc. Hence it compels operators to think on segmentation in the prepaid market.
- Most of the subscribers subscribe MNP services due to low prices and easy process.
- IDEA provides comparatively high tariff plans but still it was in the customer preference because of disturbance free network backed by state-of-the-art customer service setup.
- After the introduction of MNP, IDEA pays heed on setting up new network towers for connecting people across the country and attracting potential customers.
- Introduction of MNP compels IDEA to focus on retaining their high average revenue per user (ARPU) postpaid customers because it contributes in profit maximization.
- Most of the customer switches their operator to another due to Customer demographics (Age, Gender, Marital status) and brand value.
- Customers are indifferent on the fact that IDEA provides low international tariff plans.
- IDEA provides the tariff plans which consist a lot of talk time and data rolled in it.
- Since MNP generates perfect competition among the operators, That is why it induces them to come up with new thinking and new possibilities and apart from it, MNP helps in removing monopoly of massive player of the sector.
- The main reason of availing MNP services is that, it provides choice to change the operator while retaining existing number.
- Since customer is the king of the market so he should be satisfied with the services at affordable prices.
- Since MNP allows customer to change their operator hence there is a little need of retaining or purchasing another SIM card of new service provider.
- IDEA provides better network coverage than any other operator in the market; this service continuously boosts up the sale of IDEA since the introduction of MNP and contributes

in the brand recognition.

- One of the milestones in success of IDEA after MNP is that; they set up a 24x7 Customer oriented call centers and innovative/competitive service offers for enhancing the sale.
- IDEA campaign “No Idea, Get Idea” is one of the finest advertisements that is liked by the users. It connects human needs with the mobile phone. It consist informative appeal to the mobile users.
- Due to wide and best network coverage in the industry, Users enjoy crystal clear voice quality and low call drop facility from IDEA.
- Being the first promoter of MNP services in India, IDEA get success in terms of attracting potential customers and retaining existing customer.
- MNP helps mobile phone users to change from one mobile operator to another without changing mobile phone number.

12. Conclusion

This research study aims to figure out the effects of mobile number portability in telecom sector and for the authentic research work we have picked up a case study of IDEA cellular Ltd. In which we pull the attention on mobile number portability 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/aggressive tariff plans, innovative services, quality of service, Voice quality, low call drops and state-of-the-art customer service setup etc.

Mobile number portability will facilitate the easy exit of unsatisfied users. This also means operators will have to put more effort to provide better services to retain the customers, better services mean the companies will have to set up more mobile phone towers, upgrade their equipment and provide instant rectification of problems so that the subscribers are always able to get connected, surf the internet and make full use of their mobile telephones.

Since IDEA was the first promoter of MNP services in India that means firstly they impart the information about the MNP services to the customers. They bring the awareness about MNP services among its existing and potential customers and it is true that customer s go with the operator by whom they get information about the particular service. Also with the broad network coverage, heavy expenditure on advertisement, disturbance free network backed by state-of-the-art customer service setup, voice quality, low call drops and many more, IDEA became the utmost priority of customers. These services win the faith and sense of belongingness of the prospective customers.

Eventually to conclude our research study we just draw the attention on the fact that there are some additional factors which affect porting. These are procedure for porting, porting

time, porting costs/fee, lock-in period, customer awareness, exit barriers, launch of services by new operators, attractive/aggressive tariff plans, innovative services, VAS offerings, quality of service, time to resolve disputes & porting process complexity etc., one factor that may affect porting in later stage is, if a subscriber finds that the new service provider is no better or, even, worse than the previous one, he can go back to the old company but only after three months. In India, several new operators are entering the market and the monthly addition of new subscriber is still very high, the next logical step would be to provide MNP across circles. For instance, a person who is periodically transferred from one place to another should be able to retain the same number at all the places of his posting with little inconvenience to him. If such a facility is provided in other countries, there is no reason why it cannot be made available to the subscribers in India.

13. Suggestions

- Operators should focus on maximizing the relevance of offers based on a subscriber’s profile, prepaid balance, real-time requirements, interests, past behavior etc.
- They should enhance customer experience via real-time tracking, faster response to feedback, instant reward fulfillment.
- Operators should offer long term loyalty benefits staggered over a period of time.
- In this highly competitive set-up, progressing out a special discount offer or a value added pack could help win back the subscriber.
- Segmentation should be done with distinguishing between genuine customers who want to switch networks due to quality reasons and those subscribers who switch in order to evade dues or for the sheer benefit of freebies and discounts.
- Operators should focus on backend operations, network and technology operations and setting up systems and processes for the enablement of this service.
- By leveraging subscriber insights, operators can maximize subscriber value to decrease churn and increase revenue.
- Operators should set up a customer care cell to seek feedback from subscribers opting for change.
- The strategy for attracting new ones should consider the customer expectations and mold operator’s services to provide the desired proposition.
- Operator who provides only CDMA services should try to think on subsidized mobile phones under a scheme — one you pay for the phone upfront and get reimbursed for the money you have spend through free talk time, downloads and even SMSes.
- Another option for CDMA service provider is to sell mobile

phones under a long term EMI scheme.

- Company should try to attract customers with a service guarantee that means they should compensate their subscribers for every call drop.
- In case of any call drop, subscribers will have to send an SMS for getting their money back.
- Operators should design the customer care service under inspection. It will answer all calls to the customer care centers within 10 seconds or reverse the money spent on the call.
- For attracting new customers operator should waive porting charges and think on offering a SIM card free of cost along with an additional talk value for prepaid customers who switch to its network from other operators.
- They should think on offering special tariffs, free SMS, Free data pack for a period of time and other incentives to attract customers from other networks.
- Research findings suggest that different groups have different switching behavior. Age, gender, marital status and brand have significant dependency on those who switch
- There is significant difference on age with regard to network quality; education and monthly income on low international tariff; marital status on network quality.

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