



A Study of Mobile Number Portability in Airtel and Jio

A Special Reference to Customer's Problems

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ABSTRACT

The Indian telecom sector is based on customer satisfaction as the market has different service providers. Customers tend to switch over to other network service providers if they are not satisfied with the services provided by their respective telecom service provider. Although most of them are loyal to their service provider. Besides due to poor service, network connectivity, or other factors, some of them must port their number with other service providers. To understand these factors, it becomes imperative to understand the variables that determine the customer's loyalty toward a particular telecom service provider. The study was carried out to study Mobile Number Portability problems in three districts of Haryana (Gurugram, Panchkula and Ambala) Total 568 respondents of different demographic profiles have been selected for analysis. Primary data was collected from them through a questionnaire. For analysis of data z test, percentage method, frequencies tables, graphs, and charts have been used with the help of SPSS. The study provides an analysis of problems faced by the consumer for prompting change to the other service providers. The results revealed that the consumers do not believe in Mobile Number Portability regularly as they tend to enjoy the services of their service providers. However, out of several variables, bad network, and connectivity problems prompt them to port their number from their service provider to another one.

Keywords: Consumer service, Price, Satisfaction, Loyalty.

INTRODUCTION

Digitalization is on its way in this golden era, where smart communication devices reach more users. Telecom services have become an integral part of our everyday lives. The cellular industry in India is growing with an extremely high annual growth rate and is the second largest in the world by number of telephone users. This rapid growth has attracted many cellular service providers both on national and international levels. The cellular phone is predicted to be one of the main platforms for innovation for every country in the coming years. Every service provider is working hard to attract customers and gain maximum market share at the global level. Customer satisfaction is considered the most crucial factor as it improves reputation in the service markets. The company's focus is on customer satisfaction and for that, they provide eye-catching products and services with the help of price reasonability, call rate, promotional offers, updating software, popular brand ambassadors, etc., as

they consider these points as the strongest determinants in the cellular industry. A firm's long-term success is based on its ability to cater to changing customer needs and preferences (F. Zafar, A. Zahra, A. Khan 2014).

MOBILE NUMBER PORTABILITY

The Indian telecom sector is facing the challenge of customer churn because of the facility of mobile number portability. In India, it was launched on Jan. 20, 2011 by the Telecom Regulatory Authority of India whereas in Haryana it was launched in Haryana on Nov. 25, 2010. The department of Telecommunication chalked out a phase-wise plan of networks migration in coordination with various telecom service providers. Before the commencement of MNP service on a commercial basis on Jan. 20, 2011, all the technical parameters were discussed for the thriving implementation of migration process. (Source: Press Information Bureau Government of India Ministry of Communications.)

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Table 1 Implementation of Mobile Number Portability

S.No.	Country	Year of Implementation	Days to Port
1.	Hong Kong	01-03-1999	2
2.	Australia	25-09-2001	0
3.	Taiwan	13-10-2005	1
4.	Japan	24-10-2006	1
5.	Pakistan	23-03-2007	4
6.	New Zealand	01-04-2007	-
7.	Singapore	13-06-2008	1
8.	Malaysia	01-10-2008	1
9.	Thailand	15-12-2010	2
10.	India	20-01-2011	3
11.	Maldives	10-03-2016	2
12.	Bangladesh	01-10-2018	7
13.	Vietnam	16-11-2018 (Postpaid) 01-01-2019 (Prepaid)	2
14.	Philippines	30-09-2021	2

Source: Wikipedia

LITERATURE REVIEW

Bomsel et al. (2003) in their research analyzed how termination rates between fixed and mobile networks shift their money resources between the various telecom service providers. In the study it was found that the regulation of access to fixed and mobile networks principles are quite different. Moreover, mobile networks, have not generally been subject to price control, either of their termination rates or of their outgoing call prices. As a result, they charge termination rates which are higher than the termination costs. Some regulators put pressure on telecom service providers to bring termination rates down, but rates are still higher than the costs by a large margin. Madhani (2006) discussed the role of Telecom Regulatory Authority of India (TRAI) in the evolution of Quality of Service (QoS) benchmarks. The research paper also underlined world trend of Mobile Number Portability (MNP). It was identified that Mobile Number Portability facilitates a subscriber to switch between services or operators while retaining his original telephone number. The telecom users can port their number without compromising on quality, reliability, and operational convenience. It was also observed that MNP increases the level of competition among service providers and rewards customers with the best customer service, network coverage, and service quality. The research

also highlighted worldwide implementation of MNP. Dube Franscinah (2011) examined the extent to which MNP has benefited telecom users who have opted for MNP in South Africa. The background on the global reforms in the telecommunication sector was analysed and reforms in South Africa were also identified. The study found that policy and regulations on MNP had both positive and negative effects. Consumers are now able to switch their telecom service providers from one to another whilst keeping their previous numbers. This exercise helps them to avail their right to choice from a number of telecom operators. However, the negative aspects where as prices still remain uncompetitive and quality of service is yet to improve. Vaghela (2012) did research work to discuss customer awareness about mobile number portability and to identify the preferences of the customers towards mobile number portability. It was observed that the satisfaction level of some of the respondents was average and over all the satisfaction level of customers was good with their existing telecom service provider. However, due to huge competition in this industry, telecom customers were well aware of mobile number portability and the procedure of porting their service from one telecom service provider to the other. This is due to the popularity of number portability information in the minds of telecom service users. The service provider should provide excellent services to their customers for their loyalty. Bedi et. al. (2015) attempted to analyse the relationship among a number of variables i.e., consumer's perceived service quality, employee quality, trust, corporate image, switching cost of mobile number portability, and switching intention of the consumers. From the study it was found that the switching intension of the consumers was influenced by a number of dimensions such as service quality, employee quality, their perceived value, trust and switching cost. However, corporate image was not found to be the significant factor to persuade them for their switching behaviour. Otto (2015) attempted to find out the improvement in the services rendered by the telecom service providers in Ghana after the introduction of Mobile Number Portability. It was found that there is no correlation between MNP and quality of service. Further, it was observed that there was no improvement in the quality of service even after the introduction of MNP. The porting rates of the various telecom service providers in Ghana

i.e., Vodafone, MTN, Tigo, etc. Further, it was also observed that MNP service cannot be considered as a success for the telecom service providers. Sarkar D et. al. (2018) took empirical research on attitudinal issue amongst the prospective telecom service users of PAN MNP in Kolkata. The research was an attempt to help the telecom service providers to formulate the policy for generating revenue for them. The study revealed that the consumer preference for Pan MNP was based on various factors i.e., Tariff, VAS, Technical and non-technical components. In all a positive attitude of customers was there observed towards Pan MNP in Kolkata. Patro (2020) took a research study to know about the switching behaviour of mobile phone users towards MNP in India. It was identified that that the mobile phone users were aware of MNP as well as the process to be adopted for MNP. He found that there are some factors that are positive for consumers and restrict them to switch them to the other service providers such as service payout, their trustworthiness, responsiveness of the telecom service provider, and monetary value while accessibility and technology becomes the reason of telecom users to port their number. Agrawal et. al. (2020) studied the determinants of mobile phone users' switching intention towards mobile number portability. In his research Indian telecom sector, progress of Mobile Number Portability in India, its implementation all over the world, advantages of MNP and various other studies based on MNP were discussed. It was found that there were a number of factors that contribute the mobile phone users to port their numbers from one service provider to another including service provider's porting fees, its speed, quality of service, porting cost, and satisfaction. Idrees et. al. (2023) examined the factors influencing the clients to switch from one mobile phone operator to another in Pakistan. An attempt was made to identify the effect of price, promotion, trust, and product offerings on brand switching in the telecommunication industry in Pakistan. It was found that consumers become loyal to the service providers who provide cost effective and high network quality services. Price and promotional offers also play a significant role in their switching behaviour whereas trust, helps them for brand retention. The study revealed that customers could also be attracted by offering a greater number of service features. Telecom users were more attracted towards tailored services as per the requirements of the

consumers as they help them to be loyal to a service provider and restricts him to switch to another cellular networks.

METHODOLOGY

Research Objective

- To identify the problems prompting the consumers to change their service provider
- To compare the problems prompting the consumers of airtel and Jio to change their service provider

Hypothesis

Null Hypothesis (H₀): There is no significant difference between the opinions of consumers of Jio and Airtel regarding problems prompting the consumers to change the service provider.

Sampling Design

Purposive sampling has been used for data collection. For the study, the top two major wireless telecom service providers have been considered. These companies have been selected as the top two telecom service providers in terms of a consumer service base in the country. 568 respondents who were Airtel or Jio users were selected. The sampling unit comprises respondents living in three districts of Haryana state, namely Gurugram, Ambala, and Panchkula. Data was collected through a questionnaire as a research instrument. The Questionnaire used consisted of closed-ended questions having rating scales.

Data Collection Method

Primary data was collected directly from respondents with the help of a questionnaire. Secondary data was collected from books, the internet, previous research, etc.

Research Tools Applied

For analysis of data z test, percentage method, frequencies tables, graphs, and charts have been used with the help of SPSS.

RESULTS

Mobile Number Portability requests have shown an increase from 428.40 million at the end of March 2019 to 487.32 million at the end of March 2020.

Table 2 Service Area-wise Cumulative Porting Requests

Service Area	Total Number of Porting Requests (in millions)	Total Number of Porting Requests (in millions)
Year	(2020)	(2024)
Delhi	25.05	50.82
Gujarat	32.60	72.45
Haryana	17.49	33.59
Himachal Pradesh	2.38	4.50
Jammu & Kashmir	1.18	2.97
Maharashtra	37.79	86.94
Mumbai	24.05	35.15
Punjab	18.78	35.01
Rajasthan	37.38	71.80
Uttar Pradesh (East)	28.12	104.35
Uttar Pradesh (West)	22.57	78.59
Andhra Pradesh	40.79	70.19
Assam	3.70	7.78
Bihar	20.21	60.86
Karnataka	43.61	71.37
Kerala	12.39	25.40
Kolkata	11.40	19.43
Madhya Pradesh	32.61	83.42
Northeast	1.44	2.45
Orissa	9.68	18.66
Tamil Nadu	40.29	66.92
West Bengal	23.87	62.68

Source: Annual Report of TRAI 2019-20 and 2024-25.

The service area-wise cumulative porting requests in 2020 and 2024 have been shown in Table 2. There are many consumers who port their number from one service provider to another due to several factors including service quality, value-added services, customer care services, tariff rates, network coverage, reliability, and various promotional offers etc.

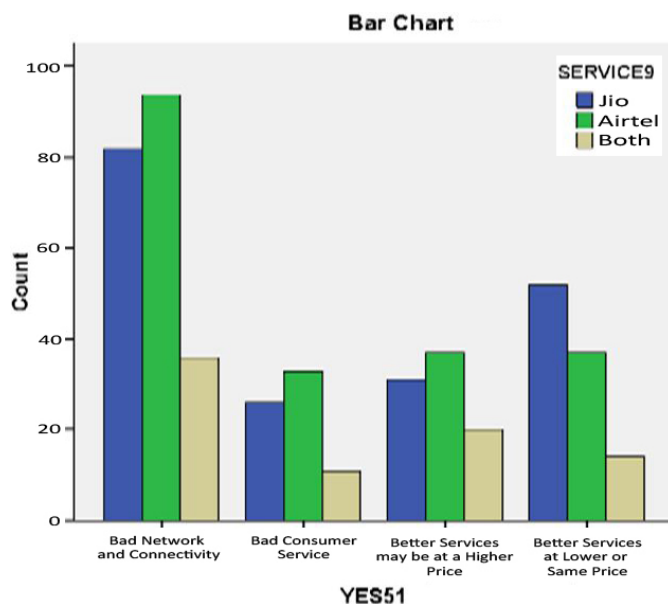
As shown by the perusal of Table 3, most consumers change their service providers because of bad networks and low connectivity. They may change their service provider if they find better services at a lower price or the same price. They are ready to purchase better

Table 3 Problems Prompting Changing the Service provider: An Analysis

Problems Causing MNP	Jio	Airtel	Both	Total
Bad network and connectivity	82 (42.9)	94 (46.8)	36 (44.4)	212 (44.8)
Bad consumer service	26 (13.6)	33 (16.4)	11 (13.6)	70 (14.8)
Better services at a higher price	31 (16.2)	37 (18.4)	20 (24.7)	88 (18.6)
Better services at the lower or same price	52 (27.2)	37 (18.4)	14 (17.3)	103 (21.8)
Total	191 (100.0)	201 (100.0)	81 (100.0)	473 (100.0)

Note: The figure in parenthesis depicts the percentage

Source: Data collected through a questionnaire

**Figure 1** Problems Prompting Changing the Service Provider: An Analysis

services even at a higher price. This implies that consumers demand better services regardless of their price. They are loyal to a service provider until they receive the desired service at a reasonable price. The data shows no significant difference in the opinion of consumers of Jio and Airtel regarding the change of service providers.

Table 4 Z-Test for Significant Differences between Problems Prompting Changing the Service Provider

Change in Service Provider	N	Mean	Std. Deviation	'z' Value at df = 477	p-value
Jio	191	2.28	1.270	1.560	.120
Airtel	201	2.08	1.178		

Source: Primary Data

Table 5 Testing of Hypothesis at a Glance

<i>H0 (Null Hypothesis)</i>	<i>p-value</i>	<i>Significant/Insignificant</i>	<i>Decision</i>
There is no significant difference between the opinions of consumers of Jio and Airtel regarding problems prompting the consumers for changing the service provider	.120	Insignificant	H0 Accepted

Source: Authors' Compilation

Data presented in Table 4 shows that the p-value of the z-test is insignificant at a 5 percent level for the insignificant difference between the opinion of the consumers about Jio ($M = 2.28$, $s = 1.270$) and Airtel ($M = 2.08$, $s = 1.178$), $z(477) = 1.560$, $p = .120$, $\alpha = .05$. Hence, it can be said that there is a similar opinion of the consumers for changing their service provider as they change the services of their service provider due to bad network and bad connectivity. Thus, there is no significant difference between the opinions of consumers regarding problems that prompt them to change their service provider. The consumers' first demand from service providers is good network and connectivity as both are the core services a service provider provides.

CONCLUSION

The study depicts that out of various problems prompting the customers to port their number to the other service provider including bad network and connectivity, bad customer service, better services even at a higher price, and better services at a lower price or same price; bad network and connectivity has been found to be the main reason for customer churn. Many subscribers do not avail themselves of the facility of MNP due to many reasons such as free SMS, free calls, better services, and reasonable plans offered by their respective service providers. The opinion of consumers of both service providers, i.e., Jio and Airtel, is similar regarding the association of Mobile Number portability and the selection of their service providers. Further, there is no significant difference found between the opinion of consumers of Jio and Airtel about problems prompting them to change their service provider. Thus, briefly, it can be interpreted that the facility of MNP not only gives wider choices to consumers but also compels the service providers to offer innovative, affordable, and competitive tariff plans for the benefit of consumers.

IMPLICATIONS AND FUTURE RESEARCH DIRECTIONS

In the present research work, an attempt has been made to identify and compare factors responsible for the MNP issues of Jio and Airtel in Haryana. However, the potential areas for further research are outlined as:

- To identify the services to restrain consumers from porting their number from the respective service provider to the other.
- To study the problems faced by them after porting their number to the other service providers.

Although the study is conducted under certain constraints, it will still be helpful to the telecom service providers of the telecom service sector in Haryana in developing their promotional offers for improving customer satisfaction and customer retention.

The limitations related to the present research work are:

- The study covers the factors prompting consumers to port their number from one service provider to another for two service providers only.
- The study is restricted to consumers of three districts of Haryana state only. \

REFERENCES

- Agrawal, A. K., Sharma, M., & Mehrotra, P. K. (2020). Determinants of switching intention towards mobile number portability. *International Journal of Process Management and Benchmarking*, 10(4), 479-494.
- Bedi, M. (2015). Antecedents of Mobile Number Portability in Indian Telecommunication Sector. *Journal of Services Research*, 15(1).
- Berry, G. C. (2000). *Marketing Research*, McGraw Hill Education Private Limited.
- Bomsel, O., Cave, M., Le Blanc, G., & Neumann, K. H. (2003). How mobile termination charges shape the dynamics of the telecom sector. *Final Report, WIK Consult, University of Warwick*, 9.

- Buhler, S., & Haucap, J. (2004). Mobile number portability. *Journal of Industry, Competition and Trade*, 4(3), 223-238.
- Dube, T. F. (2011). *The Effects of Mobile Number Portability on Consumers* (Doctoral dissertation, University of the Witwatersrand).
- Durukan, T., Bozacı, I., & Dogan, T. T. (2011). Mobile number portability in Turkey: An empirical analysis of consumer switching behavior. *European Journal of Social Sciences*, 20(4), 572-585.
- Idrees, M. A., Arman, A., Akhtar, S., & Hussain, S. (2023). Examining the Factors Affecting Customer's Brand Switching in Telecom Sector of Pakistan. *Journal of Business and Social Review in Emerging Economies*, 9(3), 169-180.
- Kaur, K., & Arora, H. (2011). Consumer preferences towards mobile number portability-A study conducted in Amritsar and Jalandhar. *International Journal of Marketing and Management Research*, 2(12), 154-161.
- Kotler, P. (2009). *Marketing Management*. Pearson Education India.
- Madhani, P. M. (2006). Indian Mobile Telephony: Mobile Number Portability. *SCMS Journal of Indian Management*, 3(3), 25-28.
- Otoo, B.K. (2015). Mobile number portability and its impact on service quality in Ghana telecommunication industry. *International Journal of Research in Finance and Marketing*, 5, 34-43.
- Patro, C. S. (2020). Customer switching behavior towards mobile number portability: A study of mobile users in India. *International Journal of Cyber Behavior, Psychology and Learning (IJCBL)*, 10(3), 31-46.
- Sanchez, B. U., & Asimakopulos, G. (2012). Regulation and competition in the European mobile communications industry: An examination of the implementation of mobile number portability. *Telecommunications Policy*, 36(3), 187-196.
- Sarkar, D., Banerjee, A.K., & Datta, S.K. (2018). A Study on Customer Attitude towards Full Mobile Number Portability in Kolkata City.
- Shin, D. H., & Kim, W. Y. (2008). Forecasting customer switching intention in mobile service: An exploratory study of predictive factors in mobile number portability. *Technological forecasting and social change*, 75(6), 854-874.
- Vaghela, P. S. (2012). Customer preference for mobile number portability. *International Journal of Management and Social Sciences Research*, 1(3), 71-75.
- Zafar, D., Zahra, A., & Khan, A.S. (2014). Strategies adopted by mobile phone manufacturers to attract more customers in smart phone industry A Case study of United Kingdom and Germany. *International Journal of Advancements in Research & Technology*, 3(1), 8-13.

Websites

- Telephone Regulation Act of India [TRAI].
- timesofindia.indiatimes.com/tech/technews/telecom/.../16336477.cms
- <http://www.accc.gov.au/content/item/phtml?/itemId/=688493&nodeId=9cft>
- https://en.wikipedia.org/wiki/Mobile_number_portability
- www.aircel.com
- www.airtel.com
- www.bsnl.com
- www.idea.com
- www.reliance.com
- www.vodafone.com