

A Study On The Impact Of Engagement With Service Channels And Factors Affecting Mobile Number Portability

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Abstract Purpose: The research aims to examine the unique port generated (UPC) customer's engagement effectiveness with digital & non-digital service channel, its impact on mobile number portability (MNP) churn and factors affecting MNP churn. **Design:** To study the first and second objective purposive sampling done from postpaid mobile customers who have shown intention of MNP by generating UPC. then the comparative study was done on customers with engaged and non-engaged base. And the effectiveness of the engaged base is studied on the digital and non-digital service channels. To determine the third objective study was done with multilevel sampling. The sample has been taken from the customers which have used the MNP service from the first objective sample. The objective is studied with a qualitative technique using semi-structured interviews to collect and analyze the data to generate a model for factors affecting the MNP churn. Then the Grounded theory approach has been used to code the sentences and theoretical model is proposed. **Findings:** Customer engagement on the UPC customers is less at 40%, results indicate that MNP churn of the engaged base is 60% against the non-engaged base 83%, and out of engaged based 85% customers were retained with non-digital interaction mode. Further results show that six influencing factors of MNP identified through axial coding are network, price, service reach, brand, non-telecom benefits, unwanted value-added services. **Originality/Value:** This paper provides the study on the postpaid segment and explores the details on customer engagement before proceeding to MNP churn, its relationship on MNP churn & reason for MNP churn which can be used to form a proactive retention strategy.

Index term: Customer churn, MNP, Indian telecom, proactive retention, net promoter score

1 INTRODUCTION

In today's hyper-competitive digital world, companies are looking for new ways to maintain profitability ever before. Telecom industry is no exception in which customer acquisition cost is more in comparison with customer retention cost. (Hejazinia & Kazemi, 2014). Mobility churn in India is 6%, which is one of the highest in the world (Association of Unified Telecom Service Providers of India, 2012), because of these factors customer retention is vital for Indian telecom companies (Gartner, 2012). Customer churn in the telecom industry has been defined as customer decrement (Modisette, 1999). In other words, the tendency of the subscriber to exit the services of one service operator is termed as churn (Phadke et.al, 2013). Customer churn is having a relationship with the profitability of the organization to a large extent Customer churn is also impacted with the quality of interaction at the service channel. The customer expects positive attention and resolution during the service channel interaction and any negative experience can lead to churn (Wei et. al, 2002). MNP is a facility given to customer which allows the customer to change the operator without changing his number (TRAI Notification, 23 September 2009) and this service is provided by Indian telecom operators at free of cost(<https://www.airtel.in/mnp/>) In MNP, retention efficacy is better during proactive retention process, compared to reactive retention process, hence companies have more focus on proactive retention processes.

In proactive retention process service channel plays a very important role (Dave & Vyas, 2011). In telecom mobility industry, customers are categories as prepaid and postpaid based on their paying contract with the company (Dent J, 2019). Postpaid mobility customer base has better average revenue per user, and 4%- 5% of the base is contributing to 25% of the telecom company's mobility revenues (INR 1.1 lac Cr.- FY18) Hence postpaid is more critical for companies (Economic Times, 03 September 2019) This study is restricted to the postpaid segment only

The aim of this paper is

1. Explore the engagement effectiveness of unique port generated (UPC) customers with digital and non-digital service channels
2. To study the impact of this engagement on MNP churn
3. To study the factors influencing MNP churn.

To achieve the 1st & 2nd objective purposive survey was done with the customer. Service channel information was taken from the industry experts, internet web site study. Engagement is referred as a number of visits made in non-digital scenario (Wikipedia definition), in digital it is known as for how much period customer is connected with the digital channel (Anniek et. al, 2018). To achieve the 3rd objectives, in-depth interviews of customers who have used UPC -MNP service in the last 90 days done and a conceptual model as mentioned in Figure no 04 was generated with Grounded theory approach. Grounded Theory Approach is a qualitative methodology which gives systematic guidelines on collecting and analyzing the data. This theory was discovered by Glaser and Strauss (1967), guiding that there should be simultaneous collection and analysis of data. The Grounded theory starts with "concrete data and ends with them in an explanatory theory" (Charmaz and Belgrave, 2007). The Interviews of the respondents were examined using Grounded theory

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approach to find factors influencing postpaid customers for MNP.

2 LITERATURE REVIEW

There are multiple studies have been done on the engagement and reason for churn which is as below: Engagement is defined as the intensity of the individual's participation (Shiri et. Al, 2012) and can be measured by Activity Time, visit frequency & core user actions (Nirpaz, 2011). Customer churn is customer moving out of company or erosion of the customer base (Yang, and Chiu, 2006). In other words, customer churn is a process in which customers change their product purchases preference to another service provider (Hadden, et. al, 2005). The study on the reason for churn shows that MNP processing cost, dissatisfaction is the effective factors on customer churn based on Hanvali model (Keramati et.al 2008). The further finding showed that customer dissatisfaction, services utilization, and demographic characteristics of customers have the most impacts on customer churn or customer retention. In German telecom market price of mobile service, usefulness is influencing factors on customer churn (Gerpott, et.al. 2011). Customer satisfaction consists of call quality, service cost, income, bundling mobile phone, and brand reputation (Kim and Yoon, 2004). And retention, loyalty and satisfaction are dependent on each other (Gerpott, et.al. 2011). Switching costs and customer satisfaction along with demographic characteristics of customers have significant effects on customer churn in the mobile telecommunications service market. (Seo et. al, 2008). Customer satisfaction, MNP switching process barrier are influencing factors on customer churn. (Kim and Shin, 2008). Determinants for customer churn in Chinese market consisting of core service failures, high prices, competition, ethical problems, service failure, and family/friends/group (Ding, et.al. 2013).

Types Customer Churn

Customer churn has divided into two types (Joshi S, 2012) which are as below

Involuntary churn: This is the company initiated churn wherein the company stops the services of the customer because of nonpayment, regulatory, fraud reason.

Voluntary churn: This is customer-initiated churn wherein customer gives the churn request to telecom company because of network issue, moving of service location, handset lost or any other issue. Mobile number portability is customer-initiated churn hence to be categories as Voluntary churn. For the successful execution of MNP process customer has to generate UPC which is valid for 15 days in India (except J&K, North East which has 30-day validity, prior to MNP seventh amendment regulation – 16th Dec 2019) and then customer has to submit the know your customer documents (KYC) to the desired mobile operator. This model is described as below in figure no. 01. The average revenue per user of the customers which uses MNP mode of exit is always high as these are active subscribers, hence it's more important to have look on the MNP while looking at overall subscriber churn in telecom (Wikipedia). The opportunity of the mobile number portability request which can be utilized by the companies

for retention can be tabulated in Chart no 01, where we can see the monthly trend of overall unique porting code (UPC) requests for India.

Customer segment

In Indian telecom mobile customers are segmented with prepaid and postpaid depending on the product and payment of mode. Prepaid has a feature of pay and use, whereas postpaid refers to use and pay (Dent J, 2019). Selected postpaid plans also offer more value to customers like Amazon prime, ZEE5, handset insurance, free access to a premium lounge at airport etc. as a complimentary service. (PWC report, 2013).

Customer service channels

As per Accenture leading consultancy, customer service channels are referred to channels which are driven by digital signals like mobile apps applications. Non-digital is referred to as, inbound call centre, store, email, outbound call centre and, email

3 RESEARCH METHODOLOGY

There has been less study on digital and non-digital service channel engagement effectiveness of postpaid UPC generated customers in Indian Telecom Industry, its relationship with MNP churn and the reason for MNP to the competition. This paper answers the above questions, this research is qualitative and uses Grounded theory to analyze the third objective. This analyzes the factors responsible for postpaid customer MNP churn. For study first and second objective purposive sampling was done with the postpaid customer who has used the UPC service in the last 90 days. Purposive sampling is also called as judgmental, selective, or subjective sampling, is a type of non-probability sampling in which researchers rely on their judgment when choosing members of the population to participate in their study (Paul J. Lavrakas, 2008). These UPC generated customers were surveyed about their last engagement with the digital and non-digital service channels of the previous mobile operator. The sample size was taken as 600 UPC generated customers from west and south part of India. The list of the service channels is analyzed through newspapers, research papers, industry experts and Internet sources. These customers were asked about their service engagement before MNP and the reason for the choice of that service channel. Then they were studied for the effectiveness of digital service channel called as App. Here App is refereed as a mobile app which is developed by the mobile companies for customer servicing, like My Vodafone app, Airtel app, My idea app. For the second and third objective, customers from West & South India were analyzed and in-depth interviews were done to obtain data and a Grounded theory approach was used through systematic analysis and collection of data (Strauss and Corbin, 1998). In this study 45, service channel engaged postpaid customers who used MNP service in the last 90 days were interviewed. The sample was taken as 45 as no new findings could arrive beyond this sample also called a data saturation point. Data saturation is a point where no new information is generated and repetition of data starts occurring (Strauss and Corbin, 1990). Each interview was then converted into a verbatim by the author, which means it was recorded in the same manner as

interviewee responded. Initial, Purposive Sampling (before theoretical sampling) Grounded theory studies are characterised with theoretical sampling, but this requires some data to be collected and analysed. Sampling must thus begin purposively, Participants in the previous study provided population (Strauss and Corbin, 1990) With the permission of the respondents, they were randomly allocated for the interview.; Author called to the participants, inviting them to participate in a further qualitative study. From those who agreed, used the quantitative data to select an initial sample. Then, select the practice in which the most dramatic results had been achieved. This was a purposive sampling strategy, to give the best possible access to the process. Author selected customers with mix demographic status, this purposive sample was designed to provide maximum variation.

Initial Interviews

20-25 minute in-depth interviews were conducted. The researcher travelled to interviewees convenient place. such as the office, community centres or home. Participants were given a choice of two schedules to attend the interview. Interviews were semi-structured and based on the research questions. Interviews were digitally recorded and professionally transcribed. The research location was remote from the researcher's office; thus data collection was divided into three parts to allow for intermittent data analysis. 45 customer interviews were done in four weeks. The researcher wrote memos. The researcher then took a month for data analysis in which coding and memo-writing occurred. The data is analysed with open code and axial coding. In other words, using deductive and inductive reasoning. One of the challenges of understanding the grounded theory approach to data analysis results from the abstract nature of the explanation Below are the steps which have been taken during the execution of Grounded theory. Open coding: read your data multiple times and do the primary coding with best suitable options of similar action/wording used (it should not be on exiting theory but should emerge from the existing data/observation). Record examples of participant's words and establish properties of each code.

Axial coding: it's nothing but identifying the relationship between open coding

Selective coding: Figure out the core variable that includes all of the data. Then re-read the transcripts and selectively code any data that relates to the core variable you identified.

4 ANALYSIS OF DATA

The interviews were converted into a verbatim and then the transcripts were studied and they performed open coding of the transcripts which generated general statements showing general behaviour of postpaid customers on the MNP churn and their reason for MNP churn, after that a round of axial coding was done and this statement was narrowed down and similar statements made one factor and like this total six factors were generated which shows customer churn behaviour and why customer is leaving exiting mobile operator by MNP churn as mode and why customer has not chosen his preferred mode of interaction

as Digital The conceptual model is given in Figure 2 &6 and all the factors have been summarized below.

5 DISCUSSION OF THE STUDY

For the first objective, a total of 600 customers who have generated the unique porting request (UPC) in the last 90 days from postpaid segmented has been studied for the research. These customers are bifurcated into engaged and not engaged customers. The research found that 40% of the customers were engaged with the service channel before MNP churn. Out of engaged base MNP churn customers was 60%. Against non-engage base customer churn of 83%. Leading to engagement efficacy of 23%. Service channel-wise engagement graph can be seen as figure no 0575% of customers were engaged with the outbound call centre only which is defined as a call made by the mobile company to retain the customers. Other channels like a store, inbound call centre, digital service channel has less contribution during the engagement. After this engagement analysis customer was asked about the reason for non-usage of digital engagement, analysis shows that digital engagement was minuscule and below were the reasons shared by the customers on this. Reason for non-preference of digital channel operators Digital channel has a limitation on while the resolution of the customer complaints and it depends on the Variation of complaints (Alexander Rossmann et al., 2015) and below is the reason which was derived for non-preference

Trust:

Customers have no trust in the App for the complaint resolution, as it's a very mechanical process (Kristina Heinonen, et al. 2010)

Customer verbiages:

"I am not sure if the app will resolve my problem "
"after all its machine, it can't solve my issue"

App failure:

As per customer, they have already tried but, no resolution last time hence don't want to engage now after UPC generation

Customer verbiages:

"I tried the app but so it can't solve my issue "
"I tried multiple times through app before taking this decision"

Language:

As per D.S. Raja (2016) & Magazine's customer experience survey, 2017 language is one of barrier in digital adoption. Customer's states that "the given mobile app is in English and Hindi; I don't know both these languages."
"I don't know English hence I am reluctant to use digital mode"

Never used:

In 2018, 58% of Indian customers are still using the basic handset on 2G technology which is results in non-usage of the digital app (Economic time, 20 February 2019)
As per survey 50% of customers still not used the mobile app

Customer:

"I never tried any mobile app, hence not used "

"I never used the app "

"My mobile phone doesn't support app, hence I never used the app"

Point to be noted that 16.6% customers from non-engaged base has not used the mobile number portability despite unique port in code generation, as per discussion with the customers they were seeking the best offer though this process, meanwhile they got to know from their friends & family members that they were already using the best competitive offer, hence they have chosen not to engage with any service channel or neither used the mobile number portability service. Factors Influencing Customer Churn from other telecom operators towards MNP In the service industry, there is a relationship between profitability and customer churn. So, in the service industry telecom operators need to retain their customers to maintain their profitability and become a market leader (Keaveney, 1995). Customer MNP is a common phenomenon in today's telecom industry, is the most common cause of churn in India as the switching cost for MNP in India is zero. The author has investigated factors that have led to further increase the MNP churn in the telecom industry in India.

Network:

Network experience is influenced by multiple factors which consist of network roaming experience, network voice experience (Dapeng, et al. 2013), network coverage experience (Ahn et. al, 2006) and data speed experience (Sing et al, 2019). After the 4G revolution in India, data speed experience has gain more importance than ever before. Data usage in India is shown exponential growth and is the most important experience element for the consumers (Sing et.al, 2019).

Customer:

"I moved with MNP because of good data speed "

"I need a data service during travel hence moved my service provider"

"I need good coverage "

Price:

India is price sensitive market (Mahajan et.al, 2017), the cost of the service is a most important factor in telecom Indian telecom industry (Srivastava et.al. 2006), (Shi, 2010) During the survey, customers compared the price of the prepaid product with postpaid products.

Customer:

"need cheaper data product"

"Why should I pay more for the same product "

Service Reach:

As per Wikipedia reach is defined as influence, capability, extend, availability. Customer service is affected the availability of service and customer churn will be higher if the customer doesn't get the service (Misra,2017) service reach also refers to availability of the service like SIM exchange, bill delivery, distance from the home/office to company service store. Customers are willing to pay more for service (Gladly's 2018) Postpaid customer pays a higher price than the prepaid customer and average price point at

Rs 399/- against prepaid Rs 199/- per month, customer's expectations on the service is higher than the prepaid customers

Customer:

"I forced to move to do mobile number portability because there is no store nearby me "

"I have gone for 30 Km for SIM exchange, hence I have decided to move the other network which is having a service centre near to my home"

Brand:

A good brand always pulls the customer, the brand can push more sales and loyalty (Mowen, 1980)

Customer:

"By watching add of 'India's fastest data network', I have decided to move to Airtel"

"I love Vodafone Pug, hence I decided to go with Vodafone"

"Vodafone is an international brand, hence I decided to go with it "

"Vodafone is a global brand, hence I decided to move to Vodafone "

Non-telecom benefits:

Non-telecom benefits are defined as the benefits over and above the basic mobile telephony service like voice, data and short messaging services (SMS). There are services like insurance scheme, complimentary Amazon prime, ZEE 5, free anti-virus, free access to an airport lounge (telecomtalk,2019). To make postpaid more attractive and give value to customs now a day most of the complains offer non-telecom benefits. These benefits can be enlisted as on 21st Dec 2019 as mentioned in figure no 3

Customer:

"I loved the Amazon prime service offered by Vodafone"

"Since I like to watch Netflix and Vodafone offer was going on hence I moved to Vodafone "

"I have moved to Airtel to have Insurance and Netflix offer "

"I always want to listen to the music and Airtel offer FREE music hence I opt for the Airtel services"

Unwanted Value-added services:

Excess bill because of unwanted Value Added Services is one of the major reason for satisfaction among the consumers (Gosselin, 2017)

Customers

"I never downloaded any game still I am getting charged for Rs 99/- per month "

"I don't know how the operator is charging me every month for some song download "

"It's so irritating that I am charged again for some game"

"why I am charged for SMS charges at Rs 3 /- per SMS "

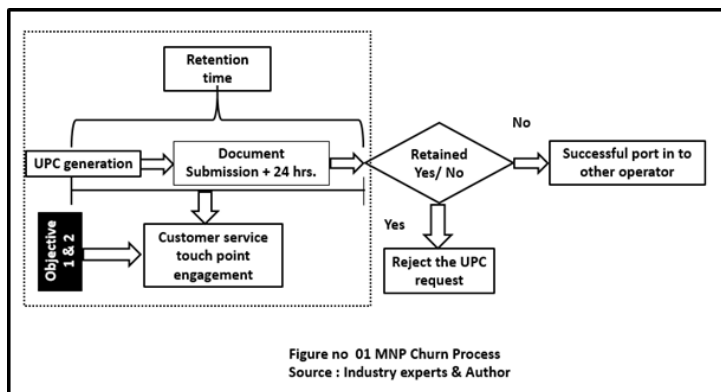
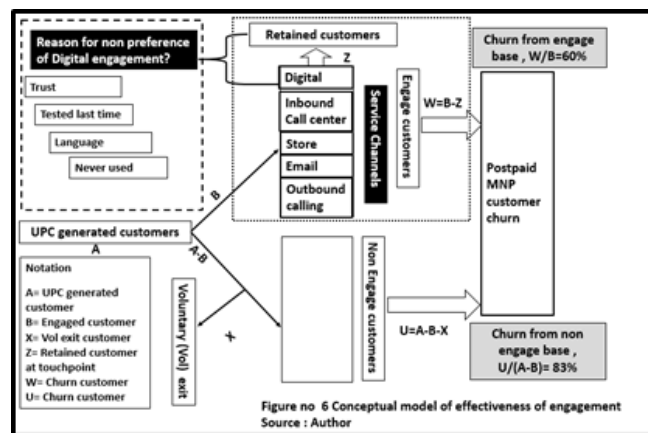
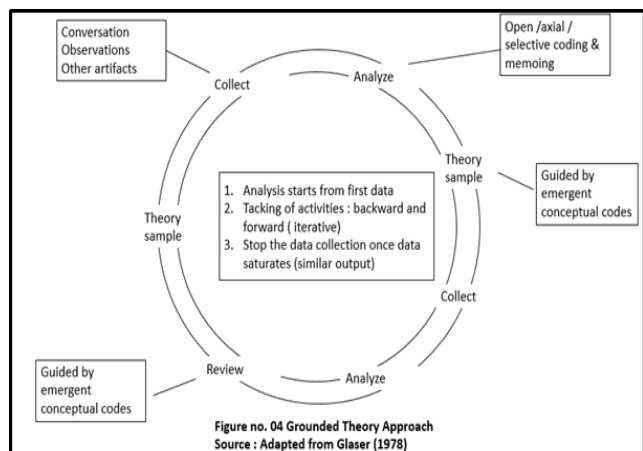
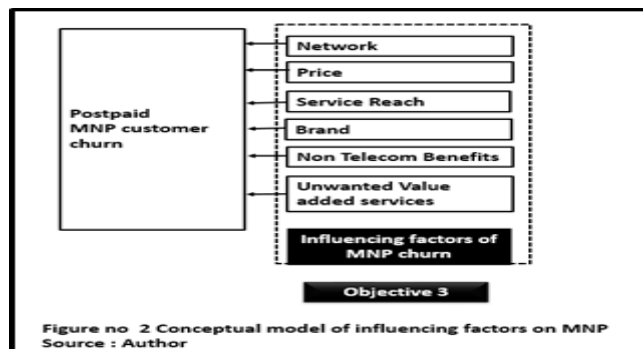
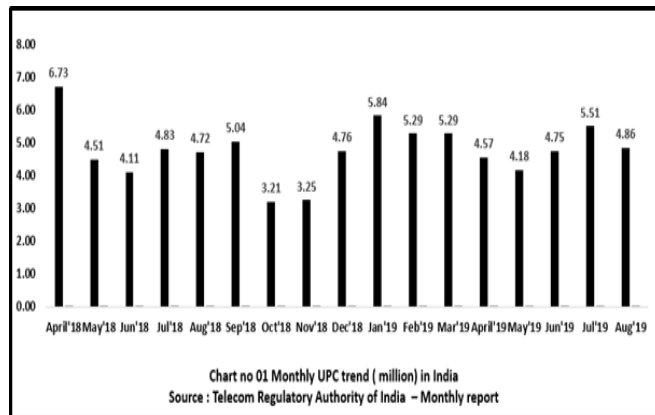
6 PRACTICAL IMPLICATIONS

Only 50% of customers were using the digital mode of service channel hence there is an opportunity to increase the penetration for the mobile service providers. India is a multi-language country hence language is a key driver for the success of any consumer communication by building the regional language apps companies can overcome this

issue. Non-telecom benefits are becoming more and stronger engaging tool than the traditional way of engaging customers which will go to the continued phenomenon and to sustain the customer engagement companies needs to do more and tie-up with the content provers and continues to search better value for money for consumers

7 CONCLUSION

Study shows that only 40% customers were engaged after generation of unique portability code request with the mobile operator and churn from the engaged customers is lower by 23% as compared to the non-engaged customers to any of service channel. This shows that there is a positive relationship between engagement and churn. Customers are not using the digital channel as a preferred mode of engagement after generation of UPC, the reason for non-usage of the Digital engagement are listed as trust, app failure, language, never used Further study shows that there are six influencing factors for the mobile number portability churn which are listed as network, price, service reach, brand, non-telecom benefits, unwanted value-added services. Network here is referred to as data speed, voice and coverage. In today's digital era customer is expecting faster data speed with a larger coverage area. In the postpaid segment, most of the customers are expecting the cost of postpaid product in line with the prepaid product. Non-telecom benefits can play a major binding factor for the postpaid segment, most of these customers are heavy users on data and benefits like Amazon prime, ZEE5, Netflix, insurance is playing a major role while deciding the MNP by these customers.



Service Channel Vs engagement	
Service Channel	Engagement %
Digital	5%
Inbound call center	9%
Store	3%
Email	8%
Outbound Calling	75%

Here engagement period is referred as UPC generation to MNP for Retention purpose

Figure no. 05 service channel and engagement
Source: Author

Age	N	User experience ageing	N	Education	N	Gender	N
Under20	120	last 1 day	210	High schoolorless	150	Female	120
21-30	240	2-6 day	165	College	210	Male	480
31-40	150	7-12 day	45	Graduate school or higher	60		
Over 41	90	13-30 days	180	Others	180		

Table no 1 Characteristics of respondents (N=600)
Source : Author

Operator	Plan	Rent	Non telecom benefits
Airtel	Rs 499-		Amazon Prime
			NETFLIX
Vodafone	Rs 999-		ZEE 5 Premium
			Airtel Xstream
			Handset Protection
			NETFLIX
			7 days iRoam pack worth ₹2999, once a year
			Access to International & Domestic airport lounges at no extra cost: 4 times per year (including 1 International)
			ISD calls to UA & Canada @ 50p/min, UK @ R.3/min: special rates to 14 countries
			Zee5 membership
			Vodafone Play
			Up to 50% faster data speeds with this plan
Priority help through our Premium customer service			
Flat 10% OFF tickets to museums and attractions worldwide, through Tixet			
Flat 10% OFF on hotel bookings, through Hotels.com			
Special deals on Samsung devices with complimentary mobile insurance			

Figure no 03 , Non Telecom benefits by mobile operators in India
Source : Company websites of Airtel & Vodafone

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