Consumer Relationship Management and Related Issues in the Mobile Telecom Industry in India

Improving Service Delivery for e-Inclusion

Payal Malik

February 2013

LIRNE*asia* is a pro-poor, pro-market think tank whose mission is *Catalyzing policy change through research to improve people's lives in the emerging Asia Pacific by facilitating their use of hard and soft infrastructures through the use of knowledge, information and technology.*

Contact: 12 Balcombe Place, Colombo 00800, Sri Lanka. +94 11 267 1160.
info@lirneasia.net
www.lirneasia.net

Contents

List of Figures

List of Abbreviations

ARPU	Average Revenue Per User
BoP	Bottom of the Pyramid
BPO	Business Processing Outsourcing
BSNL	Bharat Sanchar Nigam Limited
BTS	Base Receiver Station
CAF	Customer Application Form
CDMA	Code Division Multiple Access
CMTS	Cellular Mobile Telephone Service
CRM	Consumer Relationship Management
GSM	Global System for Mobile Communications
IMPS	Interbank Mobile Payment Service
IT	Information Technology
IVR	Interactive Voice Recognition
MNP	Mobile Number Portability
MNTL	Mahanagar Telephone Nigam
MVAS	Mobile Value Added Services
NGO	Non Governmental Organisation
RBI	Reserve Bank of India
SDCCH	Standalone Dedicated Control Channel
SIM	Subscriber Identity Module
SME	Small and Medium Enterprise
SMS	Short Messaging Service
TCH	Traffic Channel
TRAI	Telecom Regulatory Authority of India
VAS	Value Added Services

1 Background

The Indian telecom market is one of the most competitive telecom markets in the world. There are 13 telecom service providers and entire telecom market is divided into 22 circles distributed geographically throughout the country. There is serious competition across circles as around 11 telecom players are present in each circle. It is not only the number of players but existence of level playing field that makes the competition intense. Compare to other countries in the world, the competition in Indian telecom market is hyper as only few countries in the world have more than 5 players[1].

In fact, studies have pointed out that "too much" of competition has had an adverse impact on the spectrum allocation policies for wireless. Competition has resulted in allocative inefficiencies with spectrum being spread too thinly across operators. The result has been a fragmented market with many operators, each having very limited bandwidth with limited alternative wire-line infrastructure available, thus posing restrictions in the supply side for broadband connectivity (for instance, International Internet bandwidth per 10,000 population in Mbps is 2.2, while it is 172.2 for Finland).[2]

While this may be true and "too much" competition may have limited the "customer experience" of the west, but it was this intense competition that was essential in delivering voice to as many customers as possible and was the critical first step in implementing the budget telecom network model. Operators have managed to provide affordable voice connectivity, even to the poor within these markets for substantially low costs. They have achieved this through a series of technological and service-process innovations. The radically lower prices attracted more minutes of use, which, in turn, made further reduction possible. Operators were able to load their networks with high volumes of revenue-yielding minutes because they had succeeded in reducing the transaction costs of dealing with large numbers of customers who generate small amounts of revenue. Prepaid, which reduces transaction costs and also accommodates the needs of those with irregular earning patterns, was a critical element. Along with these innovations, the exponents of the budget telecom network model also succeeded in drastically reducing both capital costs and operating costs.[3]

---

[1]PricewaterhouseCoopers(PwC). (2011, August) *Indian Mobile Services Sector- Struggling to maintain sustainable growth.* Retrieved from http://www.pwc.in/en_IN/in/assets/pdfs/publications-2011/PwC-COAI-White-Paper-Indian-Mobile-Services-Sector.pdf

[2] Sridhar, V., Casey, T., & Hämmäinen, H. (2013). Flexible spectrum management for mobile broadband services: How does it vary across advanced and emerging markets? *Telecommunications Policy, 37*(2), 178-191. Available at http://dx.doi.org/10.1016/ j.telpol.2012.07.008

[3] Samarajiva, R. (2010). Leveraging the budget telecom network business model to bring broadband to the people. *Information Technologies & International Development*, *6*(SE), pp-93. Retrieved from http://itidjournal.org/index.php/itid/article/download/630/270

The total subscriber base in India stood at 937.7 mn as on 30th September 2012. Private sector operators' share in the market was 88.43% and remaining belonged to state owned units (11.57%). Wireless subscribers were 96.7% of the total subscribers. Subscribers have been leaving fixed line services for mobile services.

The wireless subscriber base is predominately urban (63.06%) and rural subscribers constitute 36.94% of the total. Overall teledensity stands at 74.49, in urban areas it is 154.64 and in rural areas 39.52, which shows, there is still much scope for expansion in rural areas. Within wireless services, 90.8% were GSM subscribers and 9.2% were CDMA subscribers. Another major characteristic of Indian telecom market is that wireless subscriber base is mainly prepaid dominated customers (96.3%) and postpaid subscribers only constituted 3.7%. Characteristics of these prepaid customers are prominent which include switching between telecom operators frequently, using mobile device with capability of multi-SIM, low value, low usage, etc. Basically, prepaid customers seek incremental lower prices and better value for money. Mobile devices can have capacity up to 4 SIMs and multi-SIM handsets were 57% of the total handsets that were shipped in India in 2011, representing y-o-y Growth of 61%.[4] The tariff war among telecom operators coupled with entry of some small players has led to significant increase in ownership of multi-SIM handsets.

---

[4] Indian Mobile Handsets Report [Multi-SIM handsets make up over 57% of total shipments, Smartphones only 6.2%].(2012, 2nd March). *NextBigWhat*. Retrieved from http://www.nextbigwhat.com/indian-mobile-handsets-report-multi-sim-handsets-make-up-over-57-of-total-shipments-297/. [Accessed on 26th January 2013]

LIRNEasia
Pro-poor. Pro-market.

Figure 1: Presence of telecom service providers- circle wise (as on 30th September 2012)
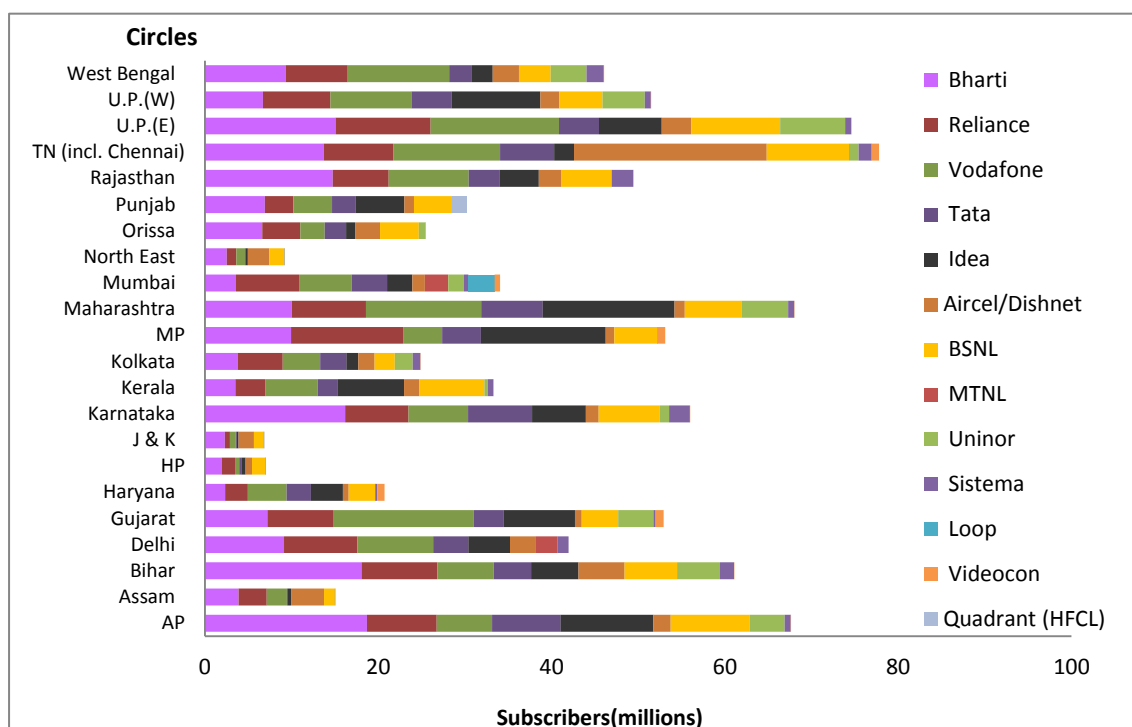
Source: Telecom Regulatory Authority of India. (2012, September). *The Indian Telecom Services Performance Indicators -July - September, 2012*. Retrieved from http://www.trai.gov.in/WriteReadData/PIRReport/Documents/Indicator%20Reports%20-%20Sep_2012.pdf

Recently wireless subscriber base has been dwindling (as growth over previous quarter was -2.94% on September 2012). This decline of subscriber base is mainly due to cleaning up of inactive subscribers by the service providers.[5] Exit of some of the service providers, to some extent; have also affected this decline in subscriber base. Reason behind exit of few players was that Supreme Court had ordered cancellation of licenses issued on/after January 2008 due to unfair allocation of spectrums and the service providers whose licenses were cancelled were allowed to continue till January 18, 2013. Companies like Loop Mobile, S-Tel and Etisalat have already stopped operations in circles allocated to them in January 2008.[6] Further, Uninor has shut down its operations in Kolkata and West Bengal circles and Videocon has also stopped its GSM operations in 11 circles. These companies had requested their customers to port to another network either by using Mobile Number Portability (MNP) or

---

[5] Srivastava, I. (2012, 22nd December). Telecom subscriber base to decline in 2012-13. *The Times of India*. Retrieved from: http://articles.timesofindia.indiatimes.com/2012-12-22/telecom/35968862_1_subscriber-base-service-providers-sim-cards. (accessed on February 9, 2013)

[6] Srivastava, I. (2012, 22nd December). Telecom subscriber base to decline in 2012-13. *The Times of India*. Retrieved from: http://articles.timesofindia.indiatimes.com/2012-12-22/telecom/35968862_1_subscriber-base-service-providers-sim-cards. (accessed on February 9, 2013)

LIRNEasia
Pro-poor. Pro-market.
8
www.lirneasia.net

otherwise. However, not all subscribers migrated to another network, because many of them use multi-SIMs. They simply have to shift to another SIM of existing service provider. Customers with multi-SIM had taken SIM card of small players in addition to one from top player because in the beginning attractive packages were offered by small players to increase their subscriber base.

Out of the total wireless subscribers, 77.1% subscribers were active subscribers in VLR (Visitor Location Register). Active subscribers in this case mean how many actually use their connections. This has bearing on service providers' revenue as active subscribers are the ones who actually going to pay.

Figure 2: Active wireless subscribers as percentage of total subscribers as on September 2012 (in %)
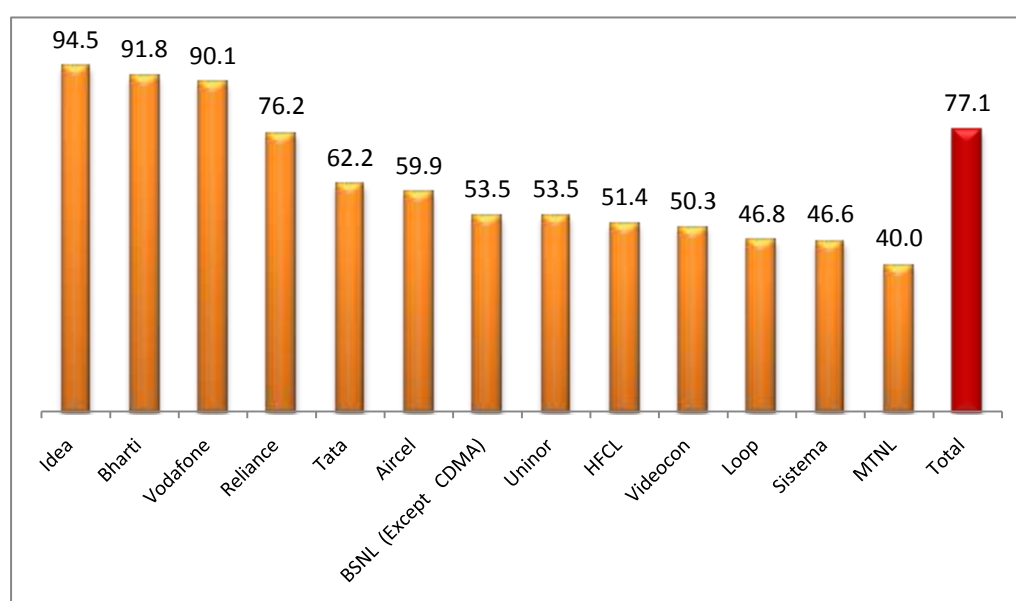
Source: Telecom Regulatory Authority of India. (TRAI). (2012, November 7th) *Highlights on Telecom Subscription Data as on 30th September 2012* [Press Release No. 199/2012] Retrieved from http://www.trai.gov.in/WriteReadData/PressRealease/Document/PR-TSD-Sep12.pdf.

As can be seen from figure 2 above, Idea, Bharti, and Vodafone are the top three service providers with active subscribers more than 90%. Small players and public sector units (BSNL and MTNL) have comparatively less active subscribers. Idea (Rs. 107), Bharti (Rs.137) and Vodafone (Rs.122) have also performed better with Average Revenue Per User (ARPU) across their respective circles compared to others.[7]

Top five service providers have combined share of 76% of the total market in terms of total subscriber base (i.e. Bharti-20%, Vodafone-16%, Reliance-15%, BSNL-13% and IDEA/Spice-

---

[7] Cellular Operators Association of India (COAI). (2012, July-September) *Report on ARPU/Revenue Analysis, July-Sept. 2012*.

www.lirneasia.net

12%). However, in terms of active subscribers market share of top five players was 81.4% as on September 2012.

If we have a look at net addition of subscribers in the third quarter of 2012 (figure 3), service providers like Videocon, Reliance, Unitech and MTNL were top losers and small players--Quadrant (HFCL) and Aircel along with BSNL were gainers. Top players--Vodafone and Bharti did manage to hold on to much of their customers as net loss of subscribers was less than 1%.

Figure 3: Net addition of subscribers as on 30th September 2012 over previous quarter-30th June 2012
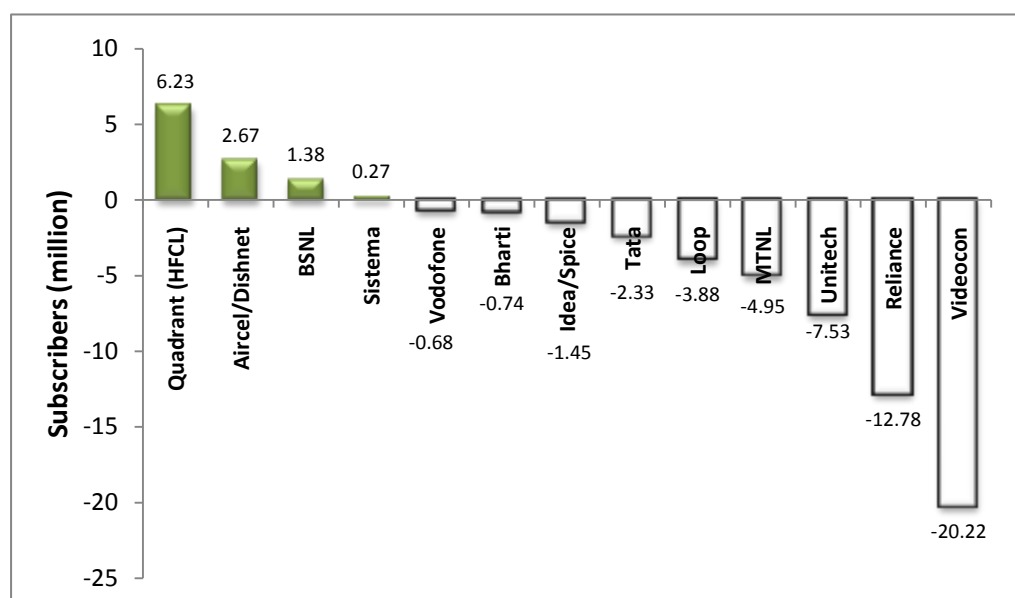
Source: Telecom Regulatory Authority of India. (TRAI). (2012, November 7th) *Highlights on Telecom Subscription Data as on 30th September 2012* [Press Release No. 199/2012] Retrieved from http://www.trai.gov.in/WriteReadData/PressRealease/Document/PR-TSD-Sep12.pdf.

1.1 Has competition delivered benefits to the consumer?

An evaluation of the Indian telecom sector in last decade reveals that service providers were highly focused on customer acquisition from the beginning. The race for acquisition of customers was intense in order to gain market shares. However, in 15 years with existence of 15 players (now reduced to 13), much of the urban markets is saturated. Tele-density in these urban markets is beyond 150 now, meaning there is not enough market left to add new mobile connection, other than eating each other's market shares. Rural market is the next target for expansion of customer base, but it is tough to expand in rural market due to many limitations such as low value customers, lack of infrastructure and low levels of education etc.

So far telecom operators have tried to maximize revenue by minimizing costs and expanding customer base. With increasingly saturated market (specially Urban), ideally they should try

to shift their focus on serving existing customers better and improve customer experience in order to build value based long lasting relationships. Therefore, spending resources on retention of existing customers and developing relationships with them is next focus area for the telecom operators. To retain customers, service providers will have to improve service quality for their customers. Moreover, telecom market is showing some signs that tariffs can no longer be reduced beyond a point as recently Airtel and Idea have increase their call rates as much as by 100%.[8] Continuously rising costs, decreasing tariffs and saturated markets have made this increasing tariff inevitable. If service providers want customers to pay more, they will have to invest more in giving better customer experience.

Presently customers are not able to differentiate operators based on services provided. Prices/tariffs are also comparable across the service providers. Therefore, main differentiators in this highly competitive market are difficult to point out, but some of the generally perceived differentiators among the telecom operators are coverage and quality of network, brand loyalty, advertisements, customised offers, etc.

High prepaid subscriber base, increasing churn rates and price sensitive customers are both cause and effect of price war between operators. High price sensitive and low value customers are less demanding about customer services, which do not serve as differentiator between operators. However, this does not imply that the operators do not have a customer focus. First, quality of service regulation has mandated specific benchmarks, which have to be met for regulatory compliance. This has to be complied with a well-established grievance redressal mechanism. Operators just have to make sure that they are able to provide at least what the regulator sets, in the budget telecom model of competition.

Many established players in the market, such as Vodafone and Airtel, have built their strategies around reducing prices rather than providing high level of customer services. This is why, not many subscribers would be able to differentiate operators based on services. Average Revenue Per User (ARPU) in the industry is around Rs. 99 [9] (less than $2) per month, which means there is hardly any room for taking some part of this to provide better customer services. One can argue that high volume of customer base makes up for low level of ARPU, however, high volume of customer base also means more pressure on customer services. Even though prepaid customers are less demanding of customer services, still there will be some demand for it and with increasing customer base pressure on customer services will go up.

---

[8] Anand, K. (2013, January 23rd) Bharti Airtel top pick in telecom sector post tariff hike: Analysts. *The Economic Times*. Retrieved from http://articles.economictimes.indiatimes.com/2013-01-23/news/36505845_1_tariff-hike-tariff-increases-telecom-sector.(accessed on February 2, 2013)

[9] Telecom Regulatory Authority of India. (2012, September). *The Indian Telecom Services Performance Indicators - July - September, 2012*. Retrieved from http://www.trai.gov.in/WriteReadData/PIRReport/Documents/Indicator%20Reports%20-%20Sep_2012.pdf

Recent 3G auction has turned out to be very costly for the operators. This implies that service providers will be more focused on serving their debts. Therefore, room for improving customer services might further narrow down. Introduction of Mobile Number Portability (MNP) has put more strain on the operators' resources as it would be test of their abilities to retain customers and improve loyalty. The operators are focusing more on urban market for enhancing customer experience, because in rural areas many customers have multi-SIM devices, less loyalty, low value customers and thus controlling the churn in this segment would be costly and difficult.

Telecom operators will have to play dual role, they have to concentrate on urban market for revenue by providing better experience to customers and venture in rural market for expanding subscriber base. For this reason the operators will have to build solid customer relationship management (CRM).

It is in this background that we review Customer Relationship Management (CRM) practices. It is indeed evident that with ARPU as low as USD 2 per month, majority of customers being prepaid and multiple SIM ownership being the norm rather than an exception poses a challenge for telecom operators to choose CRM practices. CRM practices have thus to respond to these challenges such that they can act as a differentiator in this highly competitive and increasingly mature market. Operators realize that consistency of brand and service experience beyond the fundamentals of network coverage and quality are very important, but there were few examples of industries that had been able to truly drive wide reach while at the same time delivering brand consistency.

2   Consumer Relationship Management

In a dynamic telecom market like India, implementation of CRM and making sure that it performs well is a huge challenge. In such a dynamic market, to gain competitive edge or keep existing one, a company has to continuously improve, innovate and manage its resources to stay ahead. Many telecom companies have been building their organizational capacity in this regard. CRM is thus an outcome of the dynamics of competition as there is no option but to adopt such practices for staying afloat in a mature market. Thus, most of the telecoms have adopted technology for CRM activities such as service activation, revenue and billing management, customer analytics and contacts Centers/call centers.

CRM is a systemic approach to handle customer relationships which aims at minimizing cost on customer acquisition, better customer interaction, efficient customer service, high overall customer satisfaction, increase rate of customer retention, etc. Collecting information about customers' behavior, analyzing the information for making marketing strategy, using the information for improving customer service and making business more efficient are important features of CRM.

Figure 4: Following chart shows how CRM is used keeping in target optimization of customer retention
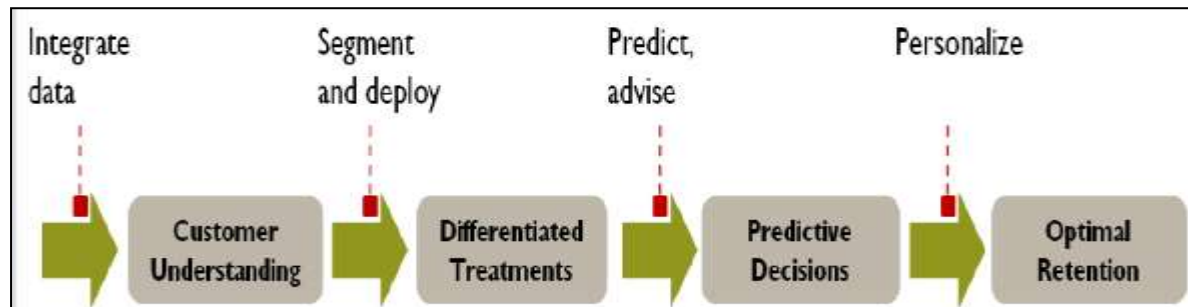
Source: Taylor, J. (2010) Transformation telecom retention with analytics. *Decision Management Solutions*. Retrieved from
http://www.decisionmanagementsolutions.com/attachments/153_TransformingTelecomRetentionAnalytics.pdf

CRM requires organizational and business level approaches – which are customer centric –to doing business rather than a simple marketing strategy. Effective CRM depends upon many things such as how the data is collected, how analytics are used to understand the data i.e. intelligent handling of data and technology, quality of customer database, development of relationship with customers to build loyalty, and building knowledge base and diffusing it well to different areas within the company. Moreover, only having technology and infrastructure is not enough as other aspects such as decision-making processes and organizational structures also have impact on effectiveness of CRM.

As far CRM for customer services is concerned, almost all telecom operators have to deliver at least according to regulations on quality of service published by TRAI. That means standardized customer services across operators i.e. outcome is almost same. Now difference could be organizational factors such as how decisions are taken and how effectively information is managed. Therefore, operations of customer services might be different for different operators but they would come up with almost similar regulatory driven outcome.

However, technology and applications have been evolved in Indian telecom, following figure describes it. It can be seen from the chart that products and service have been evolved over time. The operators have been continuously seeking different and innovative ways of revenue generations. Nature of handset market has changed over the time as well, like the introduction of smartphones and other small phones capable of 2G and 3G services has contributed in changing dynamics of the market. Even concept of CRM in Indian telecom sector has evolved from just plain customer profiling and analytics to more advance predictive

analytics, customer experience and customer value management, churn management and web analytics. Use of technology in CRM has increase with time as CRM software like Oracle Siebel has been widely used across telecom operators. Currently some of them have also started implementing e-CRM, for example, Airtel has started implementing e-CRM recently which includes aspects like online customer support, web interface and customer online profiling.

Figure 5: Evolving technology/application
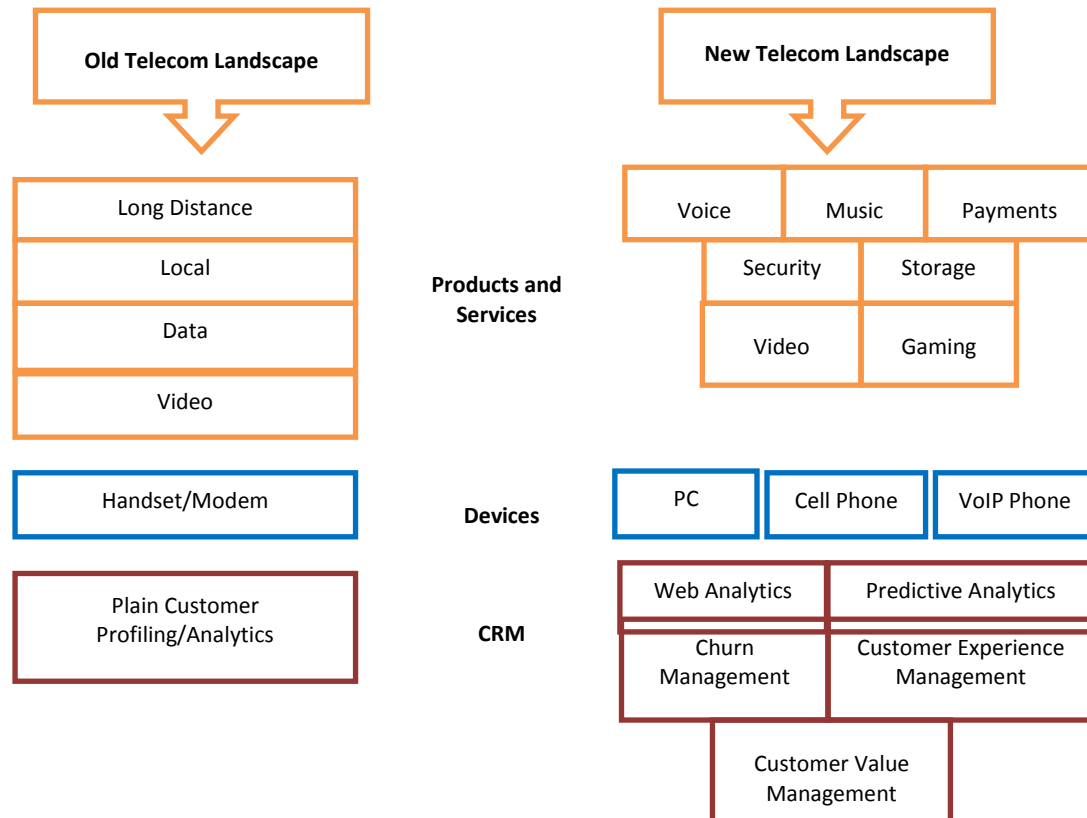
Source: Srinivasan S.T. & Krishnan K.C. (2010, August) *Customer Care for High Value Customers: Key Strategies*. [White paper]. Retrieved from Infosys: http://www.infosys.com/industries/communication-services/white-papers/Documents/high-value-customers.pdf

In the beginning, telecos were managing whole system manually. The system was not up to the mark as it was not enough to meet expectations of growing customers. Issues like not being able to recharge anywhere in the country (one has to carry scratch cards from his/her original circle) and not able to pay bill anywhere in India were prominent. Subscriber base was increasing at a very high rate and so was pressure on quality of service. This forced telecos to invest in technology to make operations more efficient. Presently most of them use

centralize CRM software based systems, in which customers can use customer services from anywhere in the country without compromising on quality.

Use of technology is a key aspect of CRM. It allows service providers to manage their CRM activities efficiently and effectively. Telecom industry is responsible for 17% of the total revenue [10] of Information Technology sector in India. This shows the industry is using IT services extensively in its operations to bring in efficiencies. Basically, IT services are playing auxiliary role to enable effectiveness of CRM activities in the Indian telecom market. Technology is used in CRM implementation to create IT based structure for managing customer relationships. This technology supported CRM system helps many segments within the company for example supports sales, marketing, creation of robust customer database, facilitates management system to integrate and analyse the data using analytics, and customer care services. Sales support includes providing customer information to sales management and it also helps them to track product availability and delivery. Marketing support includes segmentation of customers for better planning and marketing strategies and also helps to measure already existing marketing campaigns. Due to implementation of technology based CRM system, telecom companies are able to leverage benefits such as cross selling and up selling of relevant schemes based on effective customer segmentation and generation of accurate leads and SMS bursts that target only the right customers based on their segmentation.

Indian telecom companies are facing dual challenge of attracting customers and retaining them through providing constantly better customer experience. Companies are trying to provide quality customer support round the clock with self-serve channels through SMS and email. In customer care services IT structure creates self-help systems which provide solutions to many common queries. These self-help systems are available in both format voice call and web based. These customer care services are supported by database system and software that help to integrate and to analyze the data (D. Desai, et al, 2007).

Given that the average life of prepaid customer in Indian telecom market is about 8 months, indicates high churn rates (Jha, 2011). With high churn rates among prepaid subscribers, lifecycle management of customers is a challenge for the service providers in India. As mentioned earlier, telecom operators using sophisticated technologies such as Oracle to manage their CRM practices. This is particularly crucial in the context of constantly changing customer preferences and ever evolving market dynamics. Success of right CRM strategy lies in recognising right segmentation of customers and targeting them accordingly. Managing lifecycle of customer effectively by using analytic services and best CRM practices is the key for maintaining competitive edge in the market.

---

[10] PricewaterhouseCoopers. (2011, August). Indian Mobile Services Sector – Struggling to maintain sustainable growth. Retrieved from http://www.pwc.in/en_IN/in/assets/pdfs/publications-2011/PwC-COAI-White-Paper-Indian-Mobile-Services-Sector.pdf

There is no doubt that Indian telecom operators are increasingly making efforts to build effective CRM process. However, nature of the market generally does not allow them to invest in enhancing customer care services. As already mentioned, Indian telecom is mostly prepaid dominated and there is less loyalty among subscribers for any particular operator. Presence of multi-SIM devices and implementation of MNP have made switching even more easy. As a result mobile operators have less incentive to invest in overall customer experience. The telecom players compete on tariffs/customised offers/advertisement rather than on customer service. Even though dominance of prepaid customers has certain advantages to operators as it brings down billing costs, less to no bad debt, and just providing average customer service delivery would be enough, but prepaid customers are usually very price sensitive, low value, less loyal and less demanding about services.

3   Lifecycle management
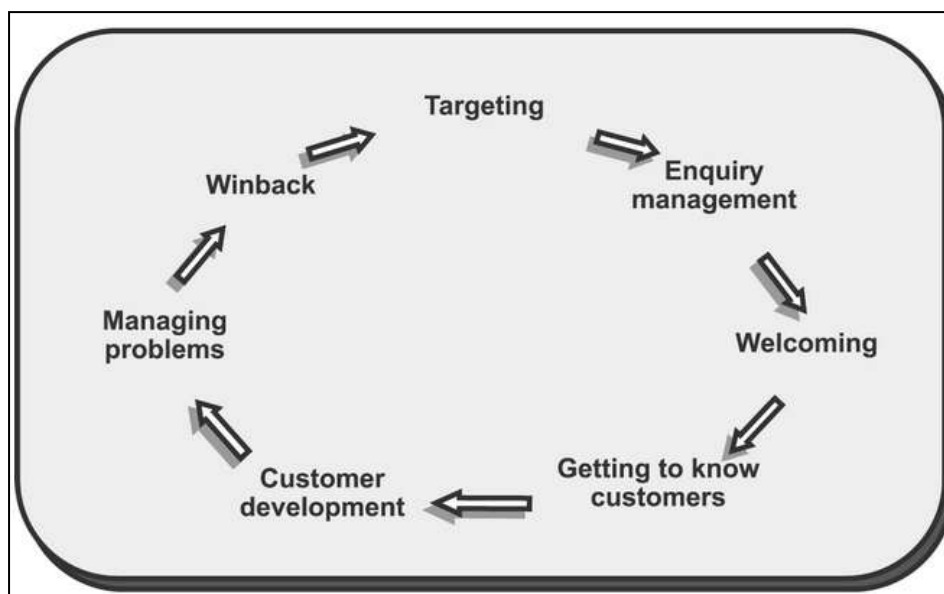
Source: Starkey, M. W., Williams, D., & Stone, M. (2002) .The state of customer management performance in Malaysia. *Marketing Intelligence & Planning*, *20*(6), pp.378 – 385.

3.1 Targeting

Indian telecom companies mainly target customers by segmenting them. Broader segmentation would be urban and rural. Any targeting strategy would aim at improving revenue and expanding market shares. For improving revenue, the operators mainly target relatively high value customers in general and urban customers in particular. With saturated urban market, major focus of acquisition of new customers is in rural market. As a result, rural telecom penetration has become important. So far rural customers are extremely price sensitive and care less about services. Service providers are coming with different plans targeted for rural/BoP customers e.g. chota (small) recharge (starts from Rs.5), farmer plans

of BSNL, etc. Service providers like Vodafone and Reliance segmented rural customers and bundled rural centric services with mobile device aiming for penetrating rural market aggressively. Many customers in rural cannot afford to buy mobile devices. So these service providers bundle services with affordable devices and offered that to rural customers. Vodafone called it "Magic Box branded handset". These handsets were offered in the market at Rs. 1,000 together with a SIM connection, three-month validity card and some special recharge offers on talk time and VAS.[11]

Service providers segment in other ways as well. These ways include small and medium enterprises (SMEs), youths including young professionals, family and special category (celebrities, politicians, and CEOs). Airtel targets young segment with offers like free SMS services and group talk/chat/SMS. Many service providers also offer family based offers. In India family member are more like to be geographically dispersed, so if they stay on one network they generally get cost advantages. Thus telecom companies are using integrated customer segmentation base strategy to target customers. Psychographic and lifestyle are some of the other aspects on which customers are segmented.

Moreover, segmenting of customers first, then target them according to their segment is important, because various studies have shown that 70% of the revenue comes from 30% customers [12] Therefore targeting customers by appropriately segmenting them is most efficient way of enhancing life value and profitability of customers. Operators also improve value of customers by using strategies such as up-selling and across-selling.

Major service providers are targeting rural market for increasing their subscriber base through focused and innovative marketing. A case of Vodafone is depicted in the box below. Telecom operators are using different channels to reach customers such television, newspaper, word of mouth, internet, radio, pamphlets, etc. In one survey,[13] it was observed that in urban areas, television, internet and newspaper are dominant channels to reach customers and in rural areas "word of mouth" factor playing important role followed by television as 58% customers said that they received information about their service provider by "word of mouth" and 24% said it was television.

---

[11] Anderson, J. (2008). Vodafone's Drive for Differentiation in Rural India. *Global Telecoms Business.*

[12] Srinivasan S.T. & Krishnan K.C. (2010, August) *Customer Care for High Value Customers: Key Strategies*. [White paper]. Retrieved from Infosys: http://www.infosys.com/industries/communication-services/white-papers/Documents/high-value-customers.pdf

[13] Sandeep, B. (2010) Understanding consumer behaviour in rural for telecom [Presentation slides]. Retrieved from http://www.slideshare.net/9959995802/understanding-consumer-behavior-in-rural-market-for-telecom

> **Rural marketing by Vodafone:** Buying an entry level handset at 1,200-1,500 ($27-$34) is still a significant payment and this has resulted in many rural consumers only being able to access telecommunications through a payphone or shared mobile phone. So while many rural consumers had SIM cards and a mobile number, this did not necessarily equate with increased individual usage. SIM ownership in the absence of phone ownership also creates a whole series of service challenges such as lost and damaged SIMs — challenges with maintaining minimum recharge values and SIM validity. To address the challenge of handset affordability in November 2007 Vodafone introduced the Vodafone Magic Box handset to focus on a bottom-up rather than top-down approach. They were able to bring the Magic Box branded handset to market at 1,000 rupees together with a SIM connection, three-month validity card and some special recharge offers on talk time and VAS — there was no subsidy. Importantly, the handset also came bundled with easy access to Vodafone's VAS platform. These devices were of good quality and came with two year's replacement warranty.

Source: Anderson, J. (2008). Vodafone's Drive for Differentiation in Rural India. *Global Telecoms Business.*

Another study[14] done for Tata Indicom has showed that factors such as network coverage (includes signal strength) and prices are most significant factors for customers to select telecom operator as 61% surveyed customers placed the highest importance to these two factors. The study also points out another important factor that has influence while selecting operator is advice by friends and relatives i.e. network effect.

3.2 Contact Points

Customer experience (which is basically interaction between customer and service provider at various levels) develops from various contact points. Given the dynamic nature of customer preferences, service providers have to provide various channels for serving customers and addressing their complaints. Just creating call centres would not be enough in such a dynamic market. Service providers have to think of different touch points such as internet, self-service channel (IVR), company stores, social media, etc. to match customers' preferences. This would help the service provider to develop and enhance customer experience and also add to competitive advantage of the company. Modern CRM technology is very useful in bringing efficiencies in all touch points so that customers' relationship with company is managed in such a manner that lifecycle value of customer is enhanced.

---

[14] Sandeep, B. (2010) Understanding consumer behaviour in rural for telecom [Powerpoint slides]. Retrieved from http://www.slideshare.net/9959995802/understanding-consumer-behavior-in-rural-market-for-telecom
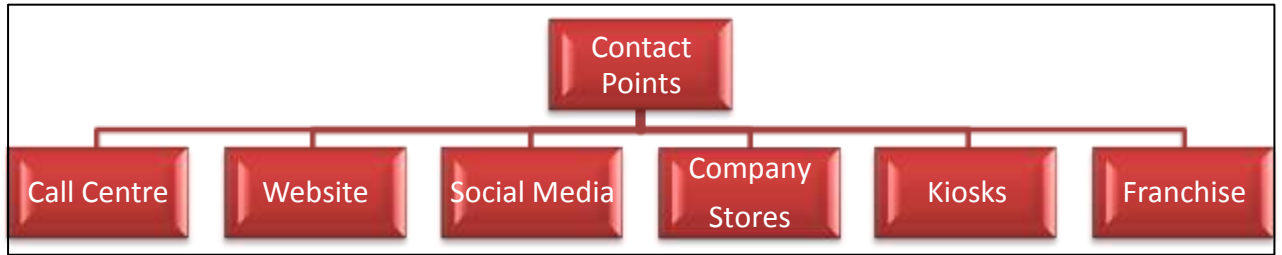
3.2.1 Call Centre

All telecom operators in India are required to set up call centres. These call centres not only serve as a channel for redressal of grievances of their customers but also as touch points for all kinds of services and information. Since the call centres are direct touch points with customers, they serve as a good tool for developing customer relationships. This generally has long lasting effect on life cycle of customers. All these call centres have to function round the clock. These call centres have to have a toll free number for calling the customer care. Any call or SMS made to this number is not chargeable to customers. As for addressing complaints, these call centres usually provide a docket number to customer, after she/he has made complaint. The call centres or customer care centres have to adhere the time limit specified in the Telecom Regulation on the Quality of Service. Wherever no time limit has been specified, all such complaints shall be redressed within seven days of registration of complaints.[15]

Generally, implementation and management of call centres operations has been outsourced by telecom operators. For this, telecom companies have used core competencies of the Indian BPO segment. [16] "The telecom operators outsourced the entire contact centre operations to 4-5 BPO corporations for managing the operations of the entire country. The operators took a two-pronged approach of limiting the number of strategic partners they tied-up with and ensuring that the contact centre sites got located conveniently at the non- metro locations with regional language preferences to cut costs and manage attrition." (Jha, 2010). Bharti, for instance has outsourced its call centres operations for mobile services have been outsourced to IBM Daksh, Hinduja TMT, and Teletech & Mphasis. This too has become an industry norm.

---

[15] National Consumer Helpline. (n.d.) *Telecom*. Retrieved from
http://www.nationalconsumerhelpline.in/Sectorwisedetails.aspx (accessed on 9th December 2012)
[16] Jha, O. (2011) Customer Retention – The Telco's next Blue-Eyed Boy. *The Times of India*. Retrieved from
http://www.telecomindiaonline.com/customer-retention-the-telco-next-blue-eyed-boy.html (Accessed on 15th February 2013)

3.2.2 Company's website

Service providers have established their own websites, which serve as another channel for disseminating information to the customers. Many customers find this channel convenient as they usually find all information in one place such as frequently occurring problems and their solutions, all available offers/recharges, customer care number/email ID, formalities for getting new connection, etc. With implementation of e-CRM recently, these websites are increasingly playing important touch points for customers. Many customers, who are technology savvy prefer to go to website than call customer care.

3.2.3 Social Media

Service providers are increasingly using social media as another touch point to build relationship with their customers. For example, many service providers have their web pages on Facebook, where they share information, address complaints, and promote offers. They take advantage of social media through network effect. This is also the reason service providers are very prompt in replying to queries on social media web sites. If they fail to build their image on the web, it would mean so many people would be reading about it and they will experience negative side of the network effect. With increasing improvement in handset technology, customers are finding easy to access social media anytime and anywhere. Therefore, this touch point is also very crucial in developing relationship with customers.

3.2.4 Company stores

Company stores have been established by many service providers e.g. Airtel Store, Vodafone Store, etc. Generally staffs at these stores are well trained. Companies regularly invest in training of the staffs. These stores are playing important role as a touch points for customers and marketing outlet for the company. These stores educate customers about various service, offers, and important processes. Wherever physical presence of the customer is required, the customers will have to go to these stores. For example, if one has to transfer postpaid connection from one circle to another and while using number portability facility customers required to go through these stores. Service providers are increasing looking at these type of stores as an important strategic channel to build customer relationships.

3.2.5 Kiosks

Use of Kiosks by service providers is also common. These are generally placed in places like malls and airports. Kiosks are automated machines, which can be used for getting information about new offers, recharging prepaid connection, paying postpaid bills, etc. This touch point is not much popular in India as people still prefer call centres and web based channels.

3.2.6 Shopkeepers /kirana stores/ small shopwalas

These small retailers serve as important sales points for service provider. This is particularly important against the background of prepaid dominant market, in which customers generally prefer to recharge frequently. Therefore accessibility of recharge coupons becomes very crucial parameter for competitive edge. These small retailers fill this gap very well. These shopwalas generally sale products of all telecom operators this serves as very cost effective channel of sales.

Customer relationship activities happen outside operators' management as well i.e. at small kirana/pan shops. One can use these small shops to recharge mobile and also can easily get all information regarding tariffs, various plans, documents required for new connection, etc. Generally for every Rs. 100 recharge by customer these small shopwalas get Rs. 2-4. Everyday telecom operator agents visit these small shops and collect the turnover after deducting shopkeepers' shares. These franchise kind of sales points offer many advantages to telecom operators since these shopwalas are local people and can convey all relevant information to customers in local dialect. Customer can get information regarding all operators in one small shop as these shops keep recharge coupons/SIM cards of all existing operators in the market.

Recently, operators are following strategy of increasing commission for these small retailers on selling their SIM cards. This is recent phenomena, so difficult to say how much impact it would have in increasing subscriber base. A recent case of Uninor telecom company is presented below:

> **Increasing commission of small retailers to push sales:**
>
> Norway's Telenor has planned to offer higher commissions to retailers and distributors in small towns and cities from February 2013 as it adopts a new strategy to incentivise point of sales that make around Rs 5,000-6,000 a month from selling SIM cards and mobile recharge coupons. By taking this step, Uninor has become the first company to effectively increase commissions to smaller retailers and distributors at a time when most mobile phone companies have reduced these commissions over the last several quarters. Telcos had started reducing dealer commissions in mid-2011 when they lowered dealer commissions from 3.8% to 3.5% while commissions on the first recharge were brought down from Rs 50 to Rs 35. On an average, a retailer presently earns 3.5% as commission on every mobile recharge and anywhere between Rs 15-30 on every SIM card sold.
>
> An increment on existing commission will motivate such retailers to push more sales of Uninor SIM cards and generate more business.
>
> The telco that operates under the Uninor brand has shifted to what it calls a 'differential commission management' system where it will pay more to smaller retailers while larger retailers would be given marginally lower commissions.

Source: Srivastava, I. (2012, 22nd December). Telecom subscriber base to decline in 2012-13. The Times of India. Retrieved from: http://articles.timesofindia.indiatimes.com/2012-12-22/telecom/35968862_1_subscriber-base-service-providers-sim-cards. (Accessed on February 9, 2013)

3.3 Welcoming

In India, to get a new prepaid or postpaid connection one has to fill up Prepaid Customer Application Form (CAF) available across network of retailers or independent sale agent or direct sale agents or companies' mobile stores. Documents that are required with the application form are: One Color / BW photograph and any one document from the list: Passport; Arms License; Driving License; Photo Identity Card having address; Election Commission ID Card; Ration Card with photo and address applicable for person whose photo is affixed; Certificate of address having photo, issued by Village Panchayat head (for rural areas), etc.

Recently (in November 2012) TRAI has tightened the procedure of verification facts provided by subscriber. According to new guidelines the authorised dealer has to give undertaking that data provided by new subscriber is physically varied. There is also provision for police inquiry, if information found to be not correct. That means after customer hands over filled up application form, the retailer has to give in writing or certifying that information provided by the subscriber is correct and physically verified. After telecom operator receives this documents from retailer then a tele-varification is carried out by the operator, then only SIM is activated. After buying SIM card from dealer activation of SIM takes up to 24 hours. However, it also

depends on the location, because in rural areas or in small towns, it may take more than 24 hours to activate the SIM. Therefore practice of retailers to activate SIMs as soon as customer submits complete filled up application form has been discontinued.

3.4 Getting to Know Customers

For both to acquire new customers and for retention of existing customers telecommunication companies require to build robust database of customers. Knowing your customers well could be the key difference between success and failure. Knowing your customer means to build a rich, coherent, integrated picture of a customer. To build understanding of the products they own, the services they use, their usage patterns, the problems they have had and more. After construction such a database, another key aspect is to put this data into work. For this reason analytics services can help the companies to make decisions effectively and quickly. Using analytic services companies are finding out risky customers, then they are predicting value of those customers, and finally targeting them to minimize churn, to maximize profit and to reduce cost. Indian telecommunications companies are increasingly using analytical services to make their business strategies effective and efficient.

In a market where all the operators are offering similar tariffs and have all existing modes of servicing the customers, the differentiation can only be achieved if an operator succeeds in identifying the match between types of transaction and modes of service for each segment of customer.[17] Telecommunication companies are segmenting customers and targeting them according to their value and investing in potentially high value customers by providing them better services/offers. This will make sure long term viability of business strategy. This means retention cost of BOP and SME customers, whose average spending is likely to be low, must be high. Thus, they would not on priority while companies prepare their strategies for retention or improving customer experience, because it is costly to do so.

Other aspect of getting to know customer is making decision of retention of customers based on their loyalty and value (assuming that some customers will churn anyway). Based on behaviour pattern of customers, service providers estimate customers that are likely to leave and how many of these customers are worth retaining. These estimates help service providers to build their strategies and intervene timely and effectively to retain customers that are worth doing so. For this, service providers use predictive analytical models to find out which customers are likely to churn and which are not.

Moreover, major part of the cost of new customer acquisition is spent on SIM card, channel commission and incentives, and special incentives with SIM card. Since most of the urban

---

[17] Jha, O. (2011) Customer Retention – The Telco's next Blue-Eyed Boy. *The Times of India*. Retrieved from http://www.telecomindiaonline.com/customer-retention-the-telco-next-blue-eyed-boy.html

market in India has matured it would make more sense for operators to focus on retention of customers by providing better customer experience, than acquiring new customers. In fact in such a market cost of acquiring new customers is usually high compared to cost of retaining. Cost of serving existing customers is Rs. 5-7 per subscriber per month, while cost of adding new customer is Rs. 100-125.[18]

Analytics services play important role in doing predictive analysis and identify customers based on their value. Analytic services are performed on the basis of huge database of customers created by the operators. These databases contain information including personal, demographic, call volume, usage, calling patterns, etc.

Customer segmentation is mainly done through data mining of customer behavior:

Bharti Airtel has reached this point. Bharti Airtel offers an integrated suite of communication and entertainment services to more than 100 million customers—and it is adding 2.5-3 million customers every month. These customers make more than 3 billion calls each day, and are supported by 1.3 million retailers and over 20,000 call center agents. To make this huge infrastructure work, Bharti Airtel must understand their customers and optimize transactions across the company. This means developing analytics to make the right decisions in real time. Bharti Airtel uses analytics to segment their large customer base, allowing them to focus on micro segments in India's rural market, for instance, where they offer coverage in 400,000 villages. Churn analysis, prediction and prevention are critical and are the basis for My Airtel My Offer—a system that optimizes the plan for a customer and is available through retailers and in self-service channels.

Bharti Airtel has developed such a fine-grained segmentation approach by applying data mining and predictive analytic techniques to its customer and usage data. This segmentation drives the whole customer lifecycle, from acquisition to retention and development. With customers from urban professionals to rural villagers whose phone is their only technology, segmentation is a pre-requisite for effective targeting.

Moreover, Bharti Airtel customers have access to something called My Airtel, My Offer. Driven by sophisticated predictive analytics and Bharti Airtel's precise segmentation of its customer base, My Airtel My Offer predicts the best possible plan for each customer. These personalized plan suggestions are presented consistently across Bharti's 20,000 call center representatives, its million plus retail partners and direct to consumers through interactive voice response and SMS systems among others.

---

[18] Jha, O. (2011) Customer Retention – The Telco's next Blue-Eyed Boy. *The Times of India*. Retrieved from http://www.telecomindiaonline.com/customer-retention-the-telco-next-blue-eyed-boy.html

Source: Taylor, J. (2010) Transformation telecom retention with analytics. *Decision Management Solutions*. Retrieved from
http://www.decisionmanagementsolutions.com/attachments/153_TransformingTelecomRetentionAnalytics.pdf

Telecom operators use predictive models based on the data sets available to segment customers and target customers for retention.

3.5 Customer Development

This section mainly deals with value added services (VAS) as VAS is a significant contributor in improving customer experience with service provider. In addition to providing services at better price and maintaining quality network coverage, VAS also plays important role in customer development. That is why Indian telecom companies are increasingly focusing on VAS as a strategy to improve revenue and retain customers. Recently, India telecom market is witnessing surge in VAS, particularly after the rollout of services like 2G and 3G. VAS in mobile market has evolved from just SMS based services like Astrology, jokes, news, etc. to application based and internet based services. Since VAS is one of the key factors that influence customer experience, VAS is considered as a differentiator by the telecom operators to stay in the competition.

Telecom industry is using CRM practices to understand preferences and needs of customers to generate appropriate VAS applications. These companies generally outsource VAS services to third party companies, but recently telecos also looking to build in-house VAS applications. The mobile VAS market has been growing around 60% per annum and factors responsible for this growth are m-commerce, multi-media games, 3G, mobile Internet for faster data upload and download, and also the rural VAS market which has a huge potential in India.[19]

Presently revenue generation of mobile VAS industry is over Rs. 27000 crore. Indian Telecom Market Overview 2012, a study by Zinnov, has pointed out in its report following mobile VAS categories that are being implemented by Indian telecom companies:[20]

1. **M- health:** Leading telcos such as Vodafone, Airtel and Aircel are partnering healthcare companies to deliver m-health services. Typical m-health services include provision of locating hospitals, fixing appointments, registration of patients, getting medical advice, facilitating treatment, and seeking blood donation.

2. **M- governance:** Many Indian states such as Kerala, Gujarat, Bihar, Goa and Andhra Pradesh have initiated m-governance practices primarily through SMS-based platform.

---

[19] VAS Asia 2012. (2012) *Industry Overview*. Retrieved from
http://www.bharatexhibitions.com/english/VASA2012.php (accessed on February 22nd 2013)

[20] Prasad, S. (2012, 28th November) Mobile VAS in India to cross $6B by 2013. Retrieved from
http://www.zdnet.com/in/mobile-vas-in-india-to-cross-6b-by-2013-7000008005/

3. **M-education**: Major telecom players are enabling mobile as a platform for imparting education. For instance, Aircel and MTS are partnering NGOs for educational initiatives aimed at underprivileged children. Reliance Communications is delivering interactive, real-time courses across 105 cities. Airtel is imparting education through IVR (interactive voice response), which includes English-speaking courses at basic level.

4. **M-commerce:** Telecom carriers are increasingly taking interest in m-commerce services. Reforms are encouraging telcos to offer services such as m-microfinance, m-retailing, and mobile-wallet services. Some of the recent government initiatives include increasing mobile payment limit to INR 50,000 (US$901.8) by RBI, and the creation of Interbank Mobile Payment Service (IMPS).

5. **M- agriculture:** These services bridge the information gap between farmers and market conditions. Key services include commodity prices, local info, weather updates, multiple language support, and so on. Reliance communication provides its service, called Grameen VAS, while Airtel has a service it named, Bahtar Zindagi, for the rural farmer.

6. **M-infotainment:** Almost all leading telecom companies provide information and entertainment-related services. Infotainment is the largest contributor to overall MVAS revenue. This segment covers categories such as sports, travel, news, ringtones, music, and videos.

Indian VAS services have not picked up in rural area as yet. Though many in the industry believe that VAS could be the future for developing market and generating revenue, only if service providers do it right that is finding innovative ways to offer value at minimum cost. As for rural area VAS is not popular as 65% of rural subscribers do not know what a data service is. However, of those who know two-thirds regularly use one.[21]

VAS services are provided by third party to telecom companies. These VAS companies get only 30-40% of the revenue generated from VAS services[22] remaining is retained by telecom operators. At the global stage situation is different where companies like Google inc. and Apple Inc. share as much as 70-80% revenue with VAS companies, in order to encourage innovation and quality in VAS content.

---

[21] PricewaterhouseCoopers India. (2012, January) *Building rural telecoms, one rupee at a time.* Retrieved from https://www.pwc.in/assets/pdfs/telecom/building_rural_telecom_one_rupee_at_a_time.pdf

[22] Saxena, R. (2012, December 30th). Mobile VAS firms turn to global markets for survival. *Livemint.* http://www.livemint.com/Industry/Ftm64F0VLsMXWTcnfDDnGI/Mobile-VAS-companies-turn-to-global-markets-for-survival.html . (Accessed on February 22nd, 2013)

3.6 Managing Problems

At present, CRM for customer services in the Indian Telecom industry is mainly regulation driven. The telecom operators have little incentives to go beyond the benchmarks set by the regulator (table above gives summary of the benchmarks).

India has a three tier grievance redressal mechanism. These three tiers being Call Centre of Service Provider concerned, Nodal Officer of Service Provider concerned and Appellate Authority within the company of Service Provider.

A telecom consumer has to register complaints for any problem he faces with customer care of his service provider and obtain a docket number. Call centres must resolve complaints relating to faults in or disruption of service within 3 days and all other complaints within 7 days. In case his complaints are not addressed then he can approach the nodal officer of the company. The nodal officer must resolve complaints relating to faults in or disruption of service within 3 days and all other complaints within 10 days. Further if problem does not get solved, customer can go to appellate authority, which is appointed from within the company. The appellate authority must resolve the complaint within 3 months. In case the appellate authority fails to address grievance of consumer, then TRAI has the authority to decide on the matter and at any time the consumer is free to appeal with consumer court under Consumer Protection Act 1986 or any other law in force from time to time.

The three tier self-regulatory system set up by telecom companies – customer care, nodal officers, and appellate authorities waste a lot of time for the customers and is expensive for the telecom companies. The amounts involved in most consumer problems is so small that it doesn't make sense for most customers to take action – like finding a lawyer and filing a complaint. Telecom industry has such high churn rate (new customers signed up each day/current customers deactivating their accounts) that an individual customer does not seem to matter in the larger scheme of things.

3.7 Win-back

Wining back customers is also an integral part of customer care system. Predictive analysis helps service providers to find out the customers' dissatisfactions and point out the customers who are likely to quit. In case if customer has already left to competitors, service providers investigates possible reasons for defection through analyzing data collected across customer contact points, then renewed offers/promotions are made to customers to win them back. Thus, data mining and analysis tools help to identify possible reasons behind customer dissatisfaction and level churn among them and then help to prepare strategies of winning back customers accordingly. Discussion on MNP and churn is done the next section.

4 Mobile Number Portability and Churn

Mobile Number Portability (MNP) was launched in India from January 2011. The number of requests of MNP has been continuously rising since then. In the first month (February 2012) 3.8 million requests were received and next 23 months total number of requests reached at 80.1 million in December 2012. Compound monthly growth rate during last 23 months was 14%. During first 14 months MNP requests grew at the rate of 18.6% and in next 9 months growth rate was 6.4% (compound monthly growth). Even though total number of MNP requests is growing continuously, the growth rate has been falling constantly. Lowest number of MNP request net addition was received in November 2012 (i.e. 2 million).

Figure 7: Monthly MNP trends in India
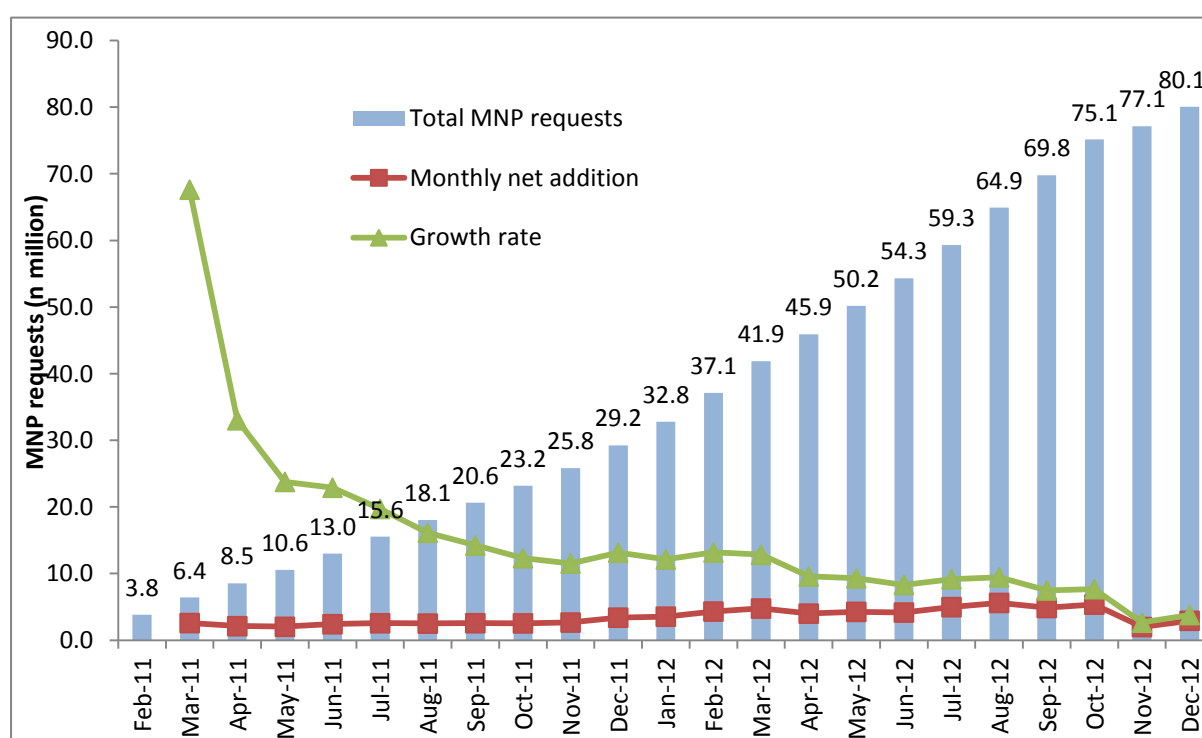
Source: Telecom Regulatory Authority in India (TRAI).(n.d.). *Press Releases*. Retrieved from http://www.trai.gov.in/Content/PressReleases.aspx.

Even though rate MNP requests are increasing, but it is just around 8% of total subscriber base. MNP requests have been launched, does not mean that all customers might have ported out to competitors. Many telecom operators might have taken steps to retain these customers like finding out reasons for churn and offering appropriate offers to them.

With dwindling subscriber base, telecom companies are trying to attract each other's customers, thus causing high churn, which basically means customer leaves network of one service provider for another. This also means a huge amount of resources are being spent by service providers for exchanging customers. This may look like waste of valuable resources

in the sector. However, this is a crucial part of highly competitive market, which forces companies to be on their toes always and keep on innovating and maintaining their operations at most efficient level. If this situation continues, companies will have to focus more on retaining customers by providing better customer experience to maintain their competitive edge.

The process of applying for MNP:

The customer who wants to port his mobile number to some other operator has to send an SMS to 1900 in: PORT –(mobile number) format. The SMS reply to this request consists of a unique porting code. The customer then sends SMS to the preferred operator quoting the unique code. This code is valid only for a few days, and customer has to apply again if it expires. The existing operator of customer will check with new operator & if there are no dues then approval will be given for porting. The customer gets an SMS on the time and date when porting will take place. As per rules by TRAI the process has to be completed within 4 days of applying. After porting is completed the new operator sends SMS regarding the change of operator. The customer is not able to use his number for about 2 hours when the porting takes place. The process is kept simple so that the customer does not have to go through a lot of paperwork before switching operators.

Source: Patel, G. P. (2012). Effect of mobile number portability on consumer retention in Madhya Pradesh circle of Bharat Sanchar Nigam Limited, a state owned telecommunication company. Retrieved from http://www.aisectuniversity.ac.in/Anusandhan/5.%20EFFECT%20OF%20MOBILE%20NUMBER%20PORTABILITY%20ON%20CUSTOMER%20RETENTION%20IN%20MADHYA%20PRADESH%20CIRCLE%20OF%20BHARAT%20S.pdf

Monthly churn rate in India averages around 6% per month, [24] which is very high. Subscribers that churn are the potential candidates for number portability. However, when one looks at the proportion of churning subscribers that take their telephone numbers with them, in India most subscribers are moving to new mobile carriers without taking their phone numbers with them. (B. Allen, 2012). So, MNP has very little impact on overall churn rate as MNP as a proportion of total churn would be very less. It is only those high value postpaid customers and some prepaid customers, would want to port out using MNP if their experience with existing service provider is not good.

5 Indicators – quality of service

Many factors are responsible for better customer satisfaction such as call waiting time, efficiency and approachability of different customer touch points, billing credibility, availability and easy accessibility of recharge and payment options, quality of network, etc.

Generally telecom companies should set benchmarks for measuring quality of service for example 0.4% billing error for satisfying performance and anything more than that means unhappy customers, implying more churn. In Indian scenario, the regulator has set benchmarks for almost all quality of service indicators. These benchmarks are shown in the table below. These standards for quality of service were introduced to protect consumers' interests in this rapidly expanding industry.

Whether these benchmarks are good enough for delivering best customer services or telecom companies will have to set their own benchmarks addition to what regulator has set to enhance effectiveness of services to customers, this is a matter of separate research.

Table 1: Quality of service indicators

S.No.	Parameters	Benchmark	% of CMTS^ Licensees not Meeting the Benchmarks (out of 229 licensees across circles)	
			Quarter Ending, June 2012	Quarter Ending, September 2012
I.	*Network Related Parameters*			
1	**Network Availability**			
(i)	BTSs$^{@}$ Accumulated downtime (not available for service)	**≤ 2%**	**1.31%**	**1.31%**
(ii)	Worst affected BTSs due to downtime	**≤ 2%**	**3.93%**	**6.55%**
2	**Connection Establishment (Accessibility)**			
(i)	Call Set-up Success Rate (within licensee's own network)	**≥ 95%**	**0**	**0**
(ii)	SDCCH$^{\#}$/ Paging Chl. Congestion	**≤ 1%**	**1.31%**	**0**
(iii)	TCH$^{\%}$ Congestion	**≤ 2%**	**0.44%**	**0.87%**
3	**Connection Maintenance (Retain ability)**			
(i)	Call Drop Rate	**≤ 2%**	**1.31%**	**1.31%**
(ii)	Worst affected cells having more than 3% TCH drop (call drop) rate	**≤ 3%**	**8.73%**	**6.99%**
(iii)	Connection with good voice quality	**≥ 95%**	**0**	**0.44%**
4	Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter)	**≤ 0.5%**	**2.18%**	**1.75%**
II.	Customer Service Quality Parameters			
5	Metering and Billing			

LIRNE*asia*
Pro-poor. Pro-market.

(i)	Metering and billing credibility - post paid	≤ 0.1%	2.62%	4.37%	
(ii)	Metering and billing credibility - pre paid	≤ 0.1%	3.49%	3.49%	
(iii)	Resolution of billing/charging/validity complaints	100% within 4 weeks	0.87%	3.93%	
(iv)	Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints	within 1 week of resolution of complaint	0	0.44%	
6	**Response time to the customer for assistance**				
(i)	Accessibility of call centre/ customer care	≥ 95%	0.87%	0.44%	
(ii)	%age of calls answered by the operators (voice to voice) within 60 seconds	≥ 90%	21.83%	33.19%	
7	**Termination / closure of service**				
(i)	%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	1.75%	2.18%	
(ii)	Time taken for refund of deposits after closures	100% within 60 days	1.75%	6.99%	

1. **Source:** Telecom Regulatory Authority of India (2012, September) *The Indian Telecom Services Performance Indicators -July - September, 2012*. Retrieved from http://www.trai.gov.in/WriteReadData/PIRReport/Documents/Indicator%20Reports%20-%20Sep_2012.pdf

2. ^CMTS: Cellular Mobile Telephone Service; [@] BTS*: Base Transceiver Station;* [#]*SDCCH:* Standalone Dedicated Control Channel; [%] TCH: Traffic Channel.

6 Concluding remarks

The discussion above poses a conundrum for theorists who see a linear relationship between competition and customer relationship. In a simplistic neo-classic economics framework there is no room for individual firms in a competitive market to make even a single mistake: once the product of one particular firm deteriorates, consumers will immediately notice this change and switch to other firms. Therefore, competition is the essential necessary condition for firms to be customer oriented. In industries with hyper competition a minimum amount of CRM is not a differentiator but a norm of doing business.

The operators in the Indian telecom industry have by and large adopted similar CRM strategies and they are now a standard practice of doing business. However, hyper competition in a budget telecom framework implies that churn is also a norm. It is in this background that CRM practices have been evaluated in this paper. In such a scenario the outcome of CRM adoption by firms is obvious. Firms will adopt only as much of CRM

L I R N E a s i a
Pro-poor. Pro-market.

31

www.lirneasia.net

practices in as much it is sufficient to maintain its subscriber base and no more and no less. Thus, CRM practices will equilibrate to what seems to be a low level equilibrium trap. The industry is experiencing one of the lowest ARPU in the world. Due to low ARPU revenue margin is getting thin. This low revenue margin coupled with expensive 3G auction prices have left telecom operators with huge debts. This also means that telecom companies will have fewer resources to invest in improving customer experience. Low to average quality of customer services and pre-dominant prepaid market will also ensure that the industry will experience a certain rate of churn on regular basis. Thus, this vicious circle-low ARPU leads to low investment in customer services, which leads to certain level of churn on regular basis, which forces operators to reduce prices or offer better offers to attract and retain customers, which leads to low ARPU and hence CRM practices adopted are only minimalist and homogeneous.

Since all adopt similar and average CRM practices, there are not any competing firms those quality-alert customers could turn to. Exit is a viable solution for the customers as long as there are some outside options available to them.[23] However, CRM practices will then make sure that the high value customers are retained and a lot of the predictive analytics will be directed to them.

If such is the outcome of highly competitive markets does it mean that one goes back to the "copper age" where, there was a monopoly provider. The answer is no. The service orientation of a monopoly provider will always be less in the absence of competition. In the electricity sector for instance, users cannot express their dissatisfaction by "exit". In such a market, if the product is a necessity, exit is no longer a viable solution to the customers: no matter how low the quality is, customers still need to buy from the monopolist. However, the customers, with nowhere to go, could utter their discontent either through consumer group forums, or through the media and political pressure. Hirschman calls this way of catching management's attention "voice". Thus, "voice" is more likely to be the disciplining factor for monopolies and "exit" for a competitive market. However, for "exit" to work as a disciplining factor, in markets such as the Indian telecom, firms will end up concentrating their CRM practices to high end customers, as retaining a low value customer through predictive analytics is going to be costly for the firms. Or else the CRM practices will be to meet regulatory benchmarks, in the case of low value customers and also to retain the indifferent customers or the "loyalists" as a mass exit of this segment of customers will challenge the survival of the firm

---

[23] Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states* (Vol. 25). Available at http://www.cui-zy.cn/Course/GAD2008i/HirschmanExitVoiceLoyalty.pdf

This is not to say that Bottom of the Pyramid (BoP) customers do not matter, but CRM practices will be more for targeting them as a result of the compulsion of the market as the volumes increasingly come from this segment. However, this segment may not be the segment of consumers on whom the telecom companies would invest to retain as their "exit" will be compensated by similar customers exiting other operators (segment of customers constituting churn, will get a minimalist CRM, but his churn has resulted in services better than those provided by the erstwhile monopoly and "voice" has a limited impact). Therefore, It is not surprising that the VAS ecosystem is not developing sufficiently to address the needs of the BoP as the operators are using their monopoly power in the platform by sharing less revenue to the application and content providers.

7   References

Allan, W.B. (2012, May 3rd). *India's experience with mobile number portability*. Available at http://www.neustar.biz/carrier/docs/whitepapers/india_experience_with_mobile_number _portability.pdf

Anand, K. (2013, January 23rd) Bharti Airtel top pick in telecom sector post tariff hike: Analysts. *The Economic Times.* Retrieved from http://articles.economictimes.indiatimes.com/2013-01-23/news/36505845_1_tariff-hike-tariff-increases-telecom-sector (Accessed on February 2, 2013)

Anderson, J. (2008). Vodafone's Drive for Differentiation in Rural India. *Global Telecoms Business.*

Aulakh, G. (2013, January 14th) Telenor to give higher commission to small retailers. *The Economic Times.* Retrieved from http://articles.economictimes.indiatimes.com/2013-01-14/news/36331814_1_small-retailers-sim-cards-commissions (accessed on 12th February 2013)

Cellular Operators Association of India (COAI). (2012, July-September) *Report on ARPU/Revenue Analysis, July-Sept. 2012*.

Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states* (Vol. 25). Available at http://www.cui-zy.cn/Course/GAD2008i/HirschmanExitVoiceLoyalty.pdf

Indian Mobile Handsets Report [Multi-SIM handsets make up over 57% of total shipments, Smartphones only 6.2%].(2012, 2nd March). *NextBigWhat.* Retrieved from http://www.nextbigwhat.com/indian-mobile-handsets-report-multi-sim-handsets-make-up-over-57-of-total-shipments-297/. Accessed on 26th January 2013.

Jha, O. (2010) The changing face of contact center. Retrieved from http://www.theceoinsights.com/joomla/index.php?option=com_content&view=article&id =168:the-changing-face-of-contact-center-&catid=54:articles&Itemid=58 (accessed on 15th February, 2013)

Jha, O. (2011) Customer Retention – The Telco's next Blue-Eyed Boy. *The Times of India.* Retrieved from http://www.telecomindiaonline.com/customer-retention-the-telco-next-blue-eyed-boy.html

National Consumer Helpline. (n.d.) *Telecom*. Retrieved from http://www.nationalconsumerhelpline.in/Sectorwisedetails.aspx (accessed on 9th December 2012)

Patel, G. P. (2012). Effect of mobile number portability on consumer retention in Madhya Pradesh circle of Bharat Sanchar Nigam Limited, a state owned telecommunication

company. Retrieved from
http://www.aisectuniversity.ac.in/Anusandhan/5.%20EFFECT%20OF%20MOBILE%20
NUMBER%20PORTABILITY%20ON%20CUSTOMER%20RETENTION%20IN%20MA
DHYA%20PRADESH%20CIRCLE%20OF%20BHARAT%20S.pdf

Prasad, S. (2012, 28th November) Mobile VAS in India to cross $6B by 2013. Retrieved from
http://www.zdnet.com/in/mobile-vas-in-india-to-cross-6b-by-2013-7000008005/

PricewaterhouseCoopers(PwC). (2011, August) *Indian Mobile Services Sector- Struggling to maintain sustainable growth*. Retrieved from
http://www.pwc.in/en_IN/in/assets/pdfs/publications-2011/PwC-COAI-White-Paper-Indian-Mobile-Services-Sector.pdf

PricewaterhouseCoopers India. (2012, January) *Building rural telecoms, one rupee at a time*. Retrieved from
https://www.pwc.in/assets/pdfs/telecom/building_rural_telecom_one_rupee_at_a_time.pdf

Samarajiva, R. (2010). Leveraging the budget telecom network business model to bring broadband to the people. *Information Technologies & International Development*, *6*(SE), pp-93. Retrieved from
http://itidjournal.org/index.php/itid/article/download/630/270

Sandeep, B. (2010) Understanding consumer behaviour in rural for telecom [Powerpoint slides]. Retrieved from http://www.slideshare.net/9959995802/understanding-consumer-behavior-in-rural-market-for-telecom

Saxena, R. (2012, December 30th). Mobile VAS firms turn to global markets for survival. *Livemint*. http://www.livemint.com/Industry/Ftm64F0VLsMXWTcnfDDnGl/Mobile-VAS-companies-turn-to-global-markets-for-survival.html . (Accessed on February 22nd, 2013)

Sridhar, V., Casey, T., & Hämmäinen, H. (2013). Flexible spectrum management for mobile broadband services: How does it vary across advanced and emerging markets? *Telecommunications Policy, 37*(2), 178-191.

Srinivasan S.T. & Krishnan K.C. (2010, August) *Customer Care for High Value Customers: Key Strategies*. [White paper]. Retrieved from Infosys:
http://www.infosys.com/industries/communication-services/white-papers/Documents/high-value-customers.pdf

Srivastava, I. (2012, 22nd December) Telecom subscriber base to decline in 2012-13. *The Times of India*. Retrieved from : http://articles.timesofindia.indiatimes.com/2012-12-22/telecom/35968862_1_subscriber-base-service-providers-sim-cards. (Accessed on February 9, 2013)

Starkey, M. W., Williams, D., & Stone, M. (2002). The state of customer management performance in Malaysia. *Marketing Intelligence & Planning*, *20*(6), pp.378 – 385.

Taylor, J. (2010) Transformation telecom retention with analytics. *Decision Management Solutions*. Retrieved from http://www.decisionmanagementsolutions.com/attachments/153_TransformingTelecom RetentionAnalytics.pdf

Telecom Regulatory Authority of India (2012, September) *The Indian Telecom Services Performance Indicators -July - September, 2012*. Retrieved from http://www.trai.gov.in/WriteReadData/PIRReport/Documents/Indicator%20Reports%20- %20Sep_2012.pdf

Telecom Regulatory Authority of India. (TRAI). (2012, November 7th) *Highlights on Telecom Subscription Data as on 30th September 2012* [Press Release No. 199/2012] Retrieved from http://www.trai.gov.in/WriteReadData/PressRealease/Document/PR-TSD-Sep12.pdf.

VAS Asia 2012. (2012) *Industry Overview*. Retrieved from http://www.bharatexhibitions.com/english/VASA2012.php (accessed on February 22nd 2013)

Zinnov Management Consulting. (2012, October) *India Telecom Market Overview- October 2012*

8 Annexures

8.1 Annexure 1

Now Experience Seamless Relocation on Vodafone Network!
Unique Benefits for Post Paid Customers of Vodafone India

Vodafone India, one of India's leading telecommunications service providers, announced the launch of a unique service for all its post-paid customers across India. Since Vodafone is present in all states of India, any customer who wants to re-locate from one state to another state can continue to enjoy un-interrupted services from Vodafone.

Customers relocating to different parts of the nation often face trouble securing a local mobile phone connection. It is a big hassle to search for the right tariff plan, service provider, etc. in the new location. Moreover, customers who were enjoying special privileges like higher credit limits, billing details, etc. in their older location need to establish their credentials in their new location.

Keeping this inconvenience in mind, Vodafone has launched the new service to enable its post-paid customers a seamless relocation experience. The customer needs to apply for the same in his current location. The CRM (Customer Relationship Management) will alert the Vodafone team in the new location from where executives will contact the customer, ensure a convenient process of allocating them a new number, retaining their credit limit, changing the billing address and collecting identity proof documents.

Speaking about the new service, Mr. Sanjoy Mukerji, Chief Commercial Officer, Vodafone India, said, "At Vodafone, we are committed to deliver the best-in-class services to reach out to our customers. This has been possible only because we are present in all the 23 telecom circles and we have a state-of-art CRM system. Through this service, we aim to provide our post-paid customers a hassle free relocation experience and uninterrupted services on Vodafone. "

Source: Vodafone press release

8.2 Annexure 2

The performance of wireless service providers in terms of QoS as on September 2012.

Parameters showing Improvement in QoS	Parameters showing deterioration in QoS	Parameters showing no change in QoS
☐ SDCCH/Paging Chl. Congestion ☐ Worst affected cells having more than 3% TCH drop (call drop) rate ☐ Point of Inter-connection (POI) Congestion (No. of POIs not meeting the benchmark) ☐ Accessibility of call centre/customer care.	☐ Worst affected BTSs due to downtime. ☐ TCH Congestion. ☐ Connection with good voice quality ☐ Metering and billing credibility - postpaid ☐ Resolution of billing/ charging/ validity complaints. ☐ Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints. ☐ %age requests for Termination /Closure of service complied within 7 days ☐ %age of calls answered by the operators (voice to voice) within 60 sec. ☐ Time taken for refund of deposits after closures.	☐ BTSs Accumulated downtime (not available for service) ☐ Call Set-up Success Rate (within licensee's own network) ☐ Call Drop Rate ☐ Metering and billing credibility - prepaid.

Source: Telecom Regulatory Authority of India (2012, September) *The Indian Telecom Services Performance Indicators -July - September, 2012*. Retrieved from http://www.trai.gov.in/WriteReadData/PIRReport/Documents/Indicator%20Reports%20-%20Sep_2012.pdf

8.3 Annexure 3

Role of consumer groups is in this whole system has seen as a facilitator. In fact many consumer groups are actively helping customers to utilize the existing system effectively.

Box- Case study on how consumer groups play role of facilitator

---

<u>**Complaint Docket No: 94079**</u>
Sector : Telecom
Counselor : Ajay
Source: Telephone

a. Who and from where called up
Ms. Renu Aggarwal - Complainant

Sec – A, E, New Deulat,
Near post office, Vaashi, Navi,
Mumbai, Maharashtra – 400703.
Phone No. – 022-251760

b. What was his requirement
Ms. Renu Aggarwal having reliance connection, which she got it charged
Rs. 100. within two days the entire amount got deducted though not used
the consumer. Even on complaining to the customer care center the amou
was not refunded to the consumer.

c. How NCH helped
NCH advised him to write a complaint letter to he Nodal Officer of th
company.

d. How this help was effective
On writing to the Nodal officer of the company the amount is refunded in her
account

e. Outcome
Problem is solved to the entire satisfaction of the consumer and she got her
money back.

8.4 Annexure 4: Total MNP requests- Trends

in Million

	Total MNP requests	Monthly net addition	Growth rate
Feb-11	3.8		
Mar-11	6.4	2.6	67.6
Apr-11	8.5	2.1	33.0
May-11	10.6	2.0	23.8
Jun-11	13.0	2.4	22.9
Jul-11	15.6	2.6	19.7
Aug-11	18.1	2.5	16.1
Sep-11	20.6	2.6	14.2
Oct-11	23.2	2.5	12.3
Nov-11	25.8	2.7	11.5
Dec-11	29.2	3.4	13.2
Jan-12	32.8	3.6	12.1
Feb-12	37.1	4.3	13.2
Mar-12	41.9	4.8	12.9
Apr-12	45.9	4.0	9.6
May-12	50.2	4.3	9.3
Jun-12	54.3	4.2	8.3
Jul-12	59.3	5.0	9.2
Aug-12	64.9	5.6	9.5
Sep-12	69.8	4.9	7.5
Oct-12	75.1	5.4	7.7
Nov-12	77.1	2.0	2.6
Dec-12	80.1	2.9	3.8

Source: Telecom Regulatory Authority of India. (n.d.) *Press Releases*.
http://www.trai.gov.in/Content/PressReleases.aspx

8.5 Annex 5

Active subscribers as a percentage of total subscribers as on September 30th, 2012

Circle	Aircel	Bharti	BSNL (Except CDMA)	Etisalat	HFCL	Idea	Loop	MTNL	Reliance	S Tel	Sistema	Tata	Uninor	Videocon	Vodafone	Total
Andhra Pradesh	66.08	93.52	70.91	0		94.14			65.11		54.72	66.33	57.23	0.13	77.68	79.14
Assam	79.84	94.92	64.74			85.73			62.54		80.72	68.4			88.53	80.11
Bihar	45.69	95.35	33.21	0		94.36			83.27		36.26	53.86	52.38	0.68	95.16	75.01
Delhi	60.63	81.49		0		93.27		47.91	80.12		31.22	54.6			93.33	77.4
Gujarat	68.7	90.06	59.05	0		92.63			79.9		39.83	63.21	61.86	58.7	89.44	81.32
Haryana	46.32	91.84	49.63			93.68			74.86			66.56		51.65	92.04	76.6
Himachal Pradesh	62.43	95.83	69.48			98.26			78.46		184.06	53.8		8.19	102.99	81.26
J & K	87.44	96.04	67.59			88.85			66.81			67.76			84.45	84.55
Karnataka	45.11	95.91	53	0		90.74			74.77		55.37	67.17	0.53	0.09	85.43	77.7
Kerala	59.17	91.8	65.28	0		97.03			63.92		48.77	63.06	1.29	10.13	86.83	76.41
Kolkata	55.81	89.08	34.77			77.67			74.4		50.18	74.09	45.09		90.2	71.05
Madhya Pradesh	44.17	91.15	53.6	0		101.74			75.66		41.74	70.27		55.49	73.35	81.99
Maharashtra	56.08	86.23	70.5	0		99.38			81.8		54.41	75.13	62.86	0.69	93.89	84.71
Mumbai	55.38	92.29		0		87.25	46.82	32.53	86.46		26.67	56.54	47.67	47.74	87.74	70.98
North East	67.17	94.72	51.77			82.23			64.04			70.91			85.9	73.88

LIRNEasia
Pro-poor. Pro-market.

Orissa	49.98	95.07	56.94			74.01			66.5		67.69	63.9	1.39	0.05	87.46	70.81
Punjab	53.26	94.22	53.39	0	51.41	93.01			80.67		27.68	65.86			91.57	79.72
Rajasthan	83.08	91.33	48.05	0		103.9			79.41		46.02	58.7		1.43	92.23	80.94
Tamil Nadu	56.13	94.89	48.44	0		71.16			70.84		54.11	53.67	1.79	46.59	92.25	68.58
U.P.(E)	68.69	92.31	42.29	0		93.66			76.44		32.07	55.25	63.79	0.43	91.17	76.19
U.P.(W)	67.68	81.2	44.33	0		92.92			72.92		34.59	55.34	59.36	0.43	93.24	75.29
West Bengal	57.54	88.87	46.74			78.37			83.39		59.13	43.26	54	0.24	92.79	76.03
Total	59.87	91.83	53.53	0	51.41	94.46	46.82	40.03	76.22	0	46.64	62.15	53.46	50.31	90.14	77.1

Source: TRAI. (n.d.). *Press Releases* .Available at http://www.trai.gov.in/Content/PressReleases.aspx