DECISION
MANAGEMENT
SOLUTIONS

Transforming telecom retention with analytics

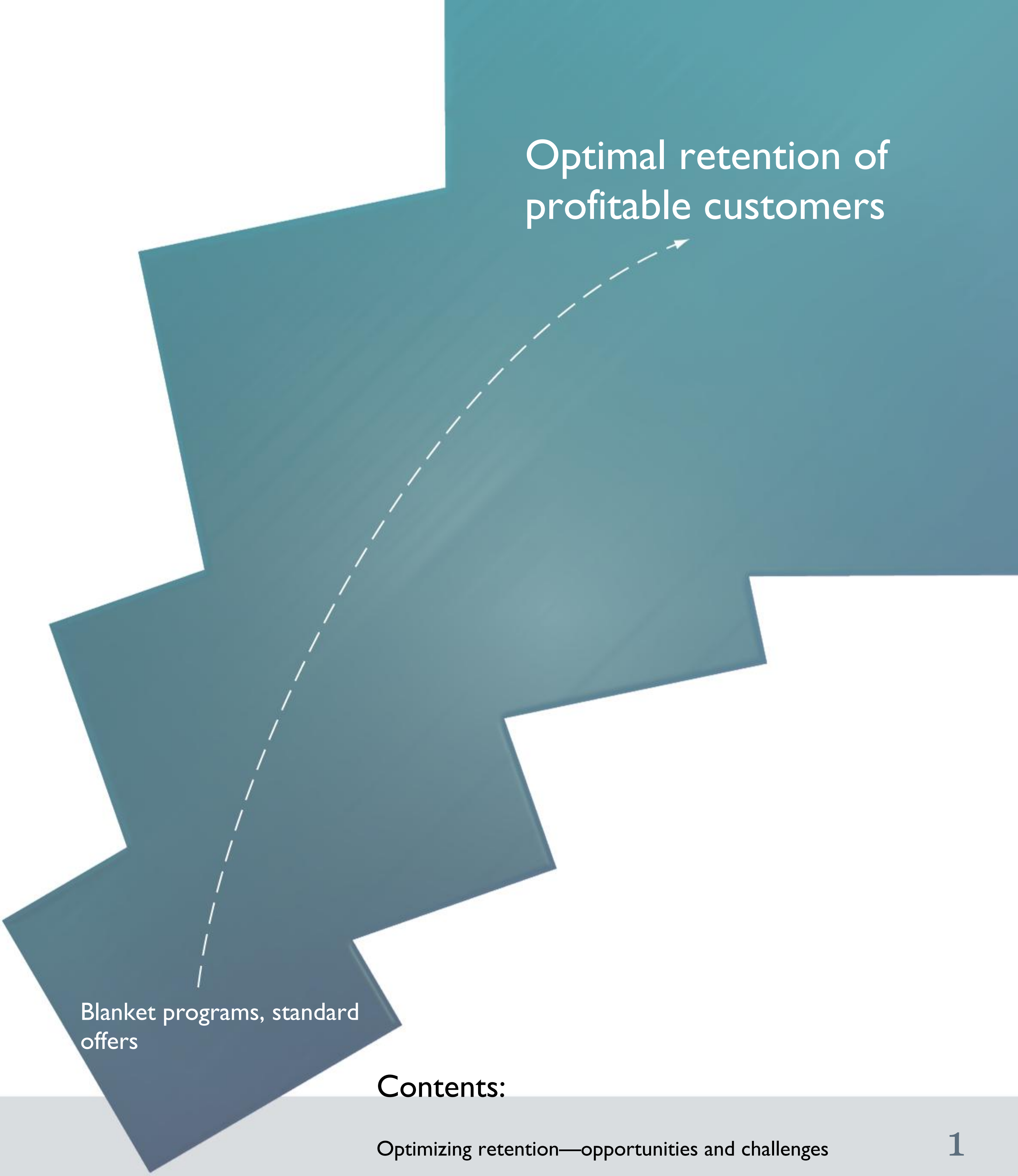
Optimizing customer retention with data-driven decision making

Customer churn is top of mind for telecommunications companies. The use of analytics to find churn risks, predict future customer value, target retention offers and optimize retention spend is transforming customer retention. Putting information to work improving retention decisions across all channels is an ongoing competitive battleground for telecommunications.

James Taylor
CEO, Decision Management Solutions

More information at:

www.decisionmanagementsolutions.com


Optimal retention of profitable customers
Blanket programs, standard offers

Contents:

Optimizing retention

Opportunities and challenges

"Seeing the world through the customers' eyes is at the heart of our business."

Federico Cesconi, Head of Customer Insight and Retention at Cablecom

"Analytics can transform the retention process by focusing limited resources on at-risk customers and doing so in the most effective way. A powerful example of customer information being put to work improving results."

Michael Shea, Director, Communications Sector, Business Analytics and Performance Management, IBM Software Group

Telecommunications carriers today must attract and retain customers while constantly improving each interaction. They need to manage the lifecycle of these customers to maximize revenue and reduce costs to increase profitability. They must do so while managing complex networks that support landlines and mobile phones, consumers and commercial companies—serving millions of customers and billions of calls. Their customers expect to be able to get support around the clock and to self-serve by SMS and email. Thousands, sometimes hundreds of thousands, of partners may need to be engaged and integrated into the value chain. Revenue assurance and reconciliation are imperative. All of this takes place against the backdrop of intense competition in a saturated market.

Effective customer retention is essential. Carriers need to retain the right customers at the right price. Huge numbers of customer retention decisions must be made and made quickly. One way to improve these decisions is with data. Voluminous, rapidly changing and detailed, this data can make the difference between success and failure. But only if it can be put to work.

Analytics can help carriers hit churn targets, improve profitability and reduce costs yet most struggle with siloed data, undifferentiated offers and competing business units. As a result they cannot identify those at risk, predict their value or target them effectively and consistently.

Opportunities and challenges

The *opportunities* for carriers in customer retention are threefold. If they can hit churn targets, increase the revenue from retained customers and reduce the cost of retaining those customers then they can directly improve their bottom line.

Hit churn targets

Customer service executives know that churn matters. In an increasingly saturated market, retaining customers is critical to long term growth and profitability. Replacing existing customers with new ones is expensive, time consuming and distracting. For some companies, customer retention details are a key element in quarterly earnings announcements. Regardless of the drivers in a particular company, hitting customer retention targets is mandatory.

Increase revenue from retained customers

Beyond the raw retention rate is the value those retained customers bring to the company. Over time, the objective must be to optimize the retention approach for each and every customer, maximizing the value of that customer and fulfilling the potential of the customer. Driving up the Average Revenue per User, or ARPU, is critical.

Reduce cost of retaining customers

It is impractical to try to retain all customers at any cost—companies want to retain profitable customers for the lowest cost possible. Reducing the cost to retain customers boosts a company's bottom line and frees up cash to retain additional customers and increase growth. Companies must reduce operational costs for customer retention and find the most cost-effective retention offer for each customer.

But retaining enough of the right customers, at the right price, is not a straightforward proposition. *Challenges* include intervening in a timely manner to identify customers at risk, estimating their future value and understanding what will help to retain those customers profitably requires new insights. Operations also need to be cost-effective, compliant and consistent across channels and business units. With millions of subscribers companies must be able to do all this at scale.

Identify those at risk

For most customers, the process of deciding to change suppliers takes time. By the time their current supplier realizes they are a retention risk, it may be too late to do anything about it—the customer has already identified a replacement and is committed to it. Effective customer retention approaches must include the early identification of those most at risk of changing suppliers.

Predict future value

Part of what makes an offer cost-effective for retaining a customer is the future value of that customer. Spending heavily to retain customers with little future value may be necessary to hit retention targets but is unlikely to be profitable in the long run. Keeping retention costs in line with future value and prioritizing those with high potential will ensure long term viability.

Understand customer motivation

Once a customer is identified for retention, the question becomes what to offer them to retain them. Understanding the customer and finding offers that will work cost-effectively is essential.

Deliver consistently

Customers today use every channel: from mobile devices to the call center, from a company's website to social media, from store visits to kiosks. Companies cannot lose sight of the customer across these channels.

Telecommunications companies can transform customer retention, drive down churn and maximize profitability using analytics. In the next section, we'll see how this transformation can be achieved in four stages.

Transformation

Optimized retention from data-driven retention decisions

"We can take a customer-centric approach in marketing our services. We've achieved a 30% response rate for new campaigns as a result."

Andreas Onisiforou, Data Warehouse Manager, Cyprus Telecommunications Authority

"It's much easier to retain a customer than to try to win him or her back. Many win-back activities and offers are often too late for the customer looking to switch providers. In many cases, the decision has been made weeks before and it is costly and difficult to reverse."

Federico Cesconi, Head of Customer Insight and Retention at Cablecom

For telecommunications companies to meet these challenges and deliver on these opportunities, they must embark on a journey. The challenges cannot be addressed sequentially and each step in the journey improves a company's ability to identify those at risk, predict future value and understand customer motivation. Each step moves them closer to optimizing customer retention. Each step reduces churn and improves profitability, better utilizing resources and putting information to work in operational processes.

No company will achieve this in one step; however each step will show a return in terms of reduced costs, increased profit, or more retained customers. Using the rich set of information companies have about their customers enables them to focus on making every decision in the retention process more targeted and more effective.

Each step—building a complete understanding of customers by integrating disparate data sources, using data mining to differentiate and automation to apply this differentiation, moving to focus on predictions that better inform decisions, and ultimately to optimize retention—creates value and improves outcomes.

Each company will have a different journey but no matter where they find themselves today, they can take the first step.

Data-driven retention decisions

Build customer understanding

The beginning of customer retention for most telecommunications companies is defined by three barriers to success: siloed data, undifferentiated offers and competing business units. Data is not organized around customers, and different channels and business units keep their data separate. Business units and product lines compete for customer attention and customer retention is either undifferentiated, with standard offers being made to all customers, or siloed, with each business unit making its own offers.

The first step on a journey to optimized customer retention management, then, is 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. This means building a common understanding of the data and standardizing business definitions such as the definition of Average Revenue per User or ARPU, of an active customer, or even what counts as revenue. A single view of the customer across channels, across business units, and between marketing and customer service/support is critical.

ONE LARGE ASIA-PACIFIC TELCO with over 15 million consumer and commercial customers needed to understand the segmentation of its mobile market. Data was in multiple applications with all the usual problems of inconsistency and data quality. Integrating their data let them develop fine–grained segmentation and to monitor packages and services so they could rapidly respond to developing trends.

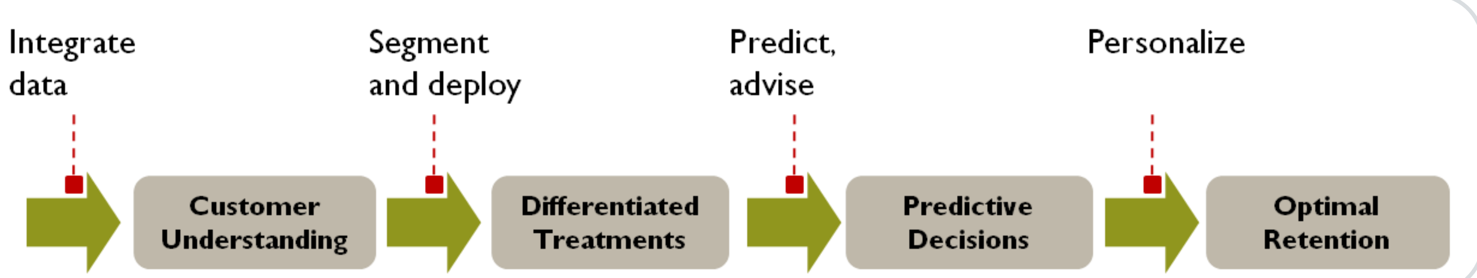
No telecommunications company should integrate their data just so it is integrated. It should be brought together to build a real understanding of customer behavior. Who is churning and why? Who is profitable and what contributes to that profitability? Which offers work and which do not? Answers to these questions are the building blocks of future optimization.

ONE RAPIDLY GROWING EUROPEAN MOBILE OPERATOR made sense of many of these parameters by applying a single data model, one based specifically on the telecommunications industry. By applying the model across their disparate data sources, this company could make better decisions about usage, churn and campaign optimization.

Because behavior is critical to understanding customers, the approach used must scale to manage huge volumes of data. Telecommunications companies have millions of subscribers who make multiple calls, creating vast numbers of call detail records. Add in texts, calls for service, bills and offers sent and all the other information they have about a customer and very robust information architecture is required.

BHARTI AIRTEL, for instance, has over 100 million customers making 3 billion calls per day, works through 1.3 million retail partners and has service in over 400,000 villages. Robust information and system architectures are absolutely essential.

The transformation journey



Establish differentiated treatments

With a complete picture of customers and an understanding of what has been working and why, the next step is to enable differentiation in how those customers are treated. To move beyond the undifferentiated customer retention offers that are typical of the first stage of the journey, companies need two things: they need to be able to develop accurate segmentation and they need the infrastructure to make different offers to different segments.

Most companies have a formal approach to segmenting their customers. They might group customers by product type, putting pay-as-you-go customers in a different segment from those with monthly plans. They might segment by region or by original channel—separating customers acquired through a retail partner from those acquired on-line. This segmentation can be useful, but to establish differentiation, companies need to go beyond this top-down segmentation.

CYPRUS TELECOMMUNICATIONS AUTHORITY, for example, had the data they needed for segmentation but lacked a platform to turn it into a strategic asset. Instead they employed expensive market surveys. With an integrated data warehouse, they were able to easily segment using their own data—market, products, profitability and more. Prioritizing profitable customers and targeting specific segments with relevant offers helped them increase outbound campaign acceptance rates from a few percentage points to 30%.

Like the Cyprus Telecommunications Authority, companies at this stage are mining their customer data to find new ways to identify and target groups of customers. Data mining techniques can find groups of customers who have a desired characteristic— say, a positive response to an offer—as well as groups who just seem similar in general. These descriptive analytic techniques provide cluster or segment definitions that can be used to divide customers into useful groups. Telecommunications companies often name these segments to define their personalities: working with segments like “Practical Talkers” focused on minutes, “Techno Freaks” who upgrade to the newest phone, or “SMS Maniacs” who text continually, helps to bring focus to the needs of these different groups.

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.

While segmentation adds to a company’s understanding of its customers, it does not automatically deliver differentiation. For this, companies need to ensure that differentiated decisions are made at every customer contact. These decisions—what offer to make to a customer threatening to leave or which customers to proactively target—have a direct impact on customer retention. Companies need to extract these decisions from their processes in a way that allows them to be logically under the control of those who understand the business. Often achieved by structuring and making apparent the business rules of these decisions, this allows different offers and different treatments to be specified for customers based on the segments in which they fall. Retention decisions can then be differentiated.

VODAFONE SPAIN relies heavily on promotions to drive growth and loyalty management programs to reduce churn. With promotions hard-coded into multiple systems, it was hard and expensive to keep promotions consistent and up to date. Vodafone Spain extracted critical promotion decisions and implemented a business rules management system so that marketing, who understood the segmentation, could manage the promotion rules themselves. With real-time monitoring of promotion performance, these same teams can make immediate adjustments to ensure continuous differentiation.

Focus on predictive decisions

So far this journey has used only historical data to describe and understand customers. But companies can turn that data around to look into the future.

It is easy to see how much more targeted, more effective customer retention decisions would be if they were based on the future profitability of each customer—if somehow these decisions could take into account exactly how much each customer would be worth in the next few years. Offers would be more cost-effective if they could be sent only to those who were going to cancel their service and if they offered exactly what it would take to stop each customer from canceling. Nothing can deliver that level of insight, but predictive analytics can help a great deal.

The future is uncertain: companies do not know who will cancel or how much they will make from a customer in the future. Predictive analytic techniques take this uncertainty and turn it into a usable probability. Historical data about the behavior of customers, the profitability of products over time, service cancellations and more can be used to calculate the probability of a characteristic or a behavior for a given customer. The techniques cannot identify *exactly* who will cancel but they can estimate the *likelihood* that a specific customer will churn. They cannot identify *exactly* what change will make a customer profitable but they can estimate the *likelihood* that a particular change would do so. With these probabilities in hand, customer treatment and retention decisions can be made more accurately, creating offers that are more likely to be accepted and targeting those customers at greatest risk.

VANGUARD CELLULAR SYSTEMS took this approach and developed predictive models to find its most desirable customers—those with the highest “average lifetime value.” With churn running at around 25%, Vanguard had to replace about a quarter of its 700,000 customers annually. By focusing on the customers predicted to be most valuable, Vanguard has uncovered new paths to increased revenues and savings in the millions of dollars each year.

WHEN CABLECOM focused on prediction they found more than 100 predictors of customer churn, including the initial activation period, number of customer service queries, price band and original sales channel. They identified a peak in churn behavior between 12 and 14 months but found that the decision to churn was actually made around the ninth month. Cablecom used these predictors to make a decision about customers when they were seven months into their subscription, identifying those likely to churn and passing them on to the retention team for proactive outreach.

These predictive models are built or trained using historical facts to predict specific things like future value or likelihood of churn. The models “learn” from the historical data to see what predictors exist. The model is then deployed so that the predictions are accessible: code representing the model might be run in batch to create a score for each customer in the database, or the model code might be executed automatically in real-time when a decision based on the prediction needs to be made. The key is deploying the model. Only once the model is deployed can prediction be used.

With these predictions in hand, and the ability to segment and target retention decisions established, companies can ensure that each customer retention decision is based not only on what has worked in the past but what seems likely to work in the future, based on the characteristics of similar customers.

As companies focus on prediction they need to look as far forward as possible. The power of predictive models built using data stored in a data warehouse can be enhanced if Call Detail Records can be accessed in real time. Leading edge companies are streaming CDR data directly from switches or mediation applications and analyzing it in real time. The results of this analysis can be used to improve numerous analytic models including those used for churn.

Data-driven retention decisions

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.

Deliver optimal retention

The final step on the journey to optimizing customer retention is to focus on each decision in the context of the overall customer portfolio and see if that decision can be improved or even optimized.

With more sophisticated uplift modeling, companies can identify those customers who would renew anyway, even if no offer is made, saving the cost of the offer. They can identify those customers who will cancel only if they receive an offer, and the customers who would have kept their subscription alive had they not been reminded that it was coming up for renewal. These more sophisticated analytics further focus and optimize limited resources where they will have most effect.

There are also mathematical techniques for optimizing how resources are allocated across customers and customer segments. These tools allow companies to decide if it is better to spend money on retaining a group of customers who are cheap to retain but not very profitable, for instance, or another group of customers who are expensive to retain but potentially very profitable in the future. Managing constraints and tradeoffs, these approaches can be used to design optimal product bundles and assign resources like outbound call center staff, valuable coupons, or free phones to maximize the results of customer retention offers across the customer portfolio.

The relationship of the customer to the carrier is not the only relationship that matters, however. When making decisions about customers it is essential to consider their social network. Social Network analysis takes who a customer calls and who calls them back and uses this information to build a network. These networks identify the people who are the most connected. This is critical as when customers churn they have a negative effect on the people in their network, increasing the odds that additional customers will churn too. For some customers this may not matter— their network is not large— but others act as the hub of large social network and can have a disproportionate impact if they are allowed to churn. Understanding this network can help prioritize interventions to prevent these super-connected individuals from leaving as well as focus mitigation strategies on their immediate network if they do leave. This analysis can also be used to develop plans and offers that encourage customers within a social network to switch from competitors.

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.

Next steps

Use information to transform telecommunications

"As we have expanded into other services our information-led architecture has allowed us to weave all these businesses together and offer a unique customer proposition."

Dr Jai Menon, Group CIO Bharti Airtel

"We will improve T-Mobile's ability to not only meet, but also anticipate, our customers' needs, resulting in a better overall customer experience with the company."

Stefan Schäfer, VP Marketing T-Mobile

Telecommunications companies of all sizes, no matter what their current use of information might be, can move towards customer-centric, data-driven customer retention. Those at the beginning of the journey can look at integrating data to create a complete customer picture. Those with a solid information platform can use that information to distinguish their treatment of different groups, different segments. They can expand from there into the use of predictive models, making decisions on what is likely to happen, not just on history. And they can continue to improve the effectiveness of their decision-making, optimizing it across their customer portfolio.

Analytics can do more than just improve retention. Analytics can help determine the optimal investment of capital and human resources to support profitable growth. As companies like Bharti Airtel have discovered, analytics can be used to improve initial offers and plan pricing to deliver better customer service and self-care. In operations, analytics can help optimize network design and improve network planning and maintenance. The supply chain, revenue assurance and even IT infrastructure can be analytically enhanced.

Telecommunications companies must survive and thrive in an intensely competitive and saturated market while managing complex technology and huge numbers of customers. Those who succeed will leverage analytics to help them.

About Decision Management Solutions

Decision Management Solutions provides consulting and implementation services for all aspects of decision management. Decision Management improves business performance by identifying the key decisions that drive value in your business and improving on those decisions by optimizing your organization's assets: expertise, data and existing systems.

Our end-to-end, decisions-based approaches and methodologies address key business priorities, such as cost competitiveness, differentiation, customer retention and growth. We offer an array of consulting services for companies, ranging from advice about adopting decision management strategies to tactical support for successful implementation projects.

Decision Management Solutions is led by James Taylor, a leading expert in decision management. James has over 20 years experience in developing software and is the foremost thinker and writer on decision management. James has experience in all aspects of the design, development, marketing and use of advanced technology. He has consistently developed approaches, tools, processes and platforms that others can use to build more effective information systems. In addition, Decision Management Solutions has an extensive network of industry and implementation partners.

More information is available at
http://www.decisionmanagementsolutions.com/learnmore.
To engage us or request information, email us at
info@decisionmanagementsolutions.com.