

Trends and Future Plans for Telcos' Data-Driven Marketing Operations

Executive summary

Catalyst

To succeed in a fiercely competitive market like telecoms, marketing departments have the responsibility to deploy proactive strategies that enable the delivery of an improved customer experience. Marketing activities such as customer engagement, campaigns and customer loyalty management must become agile and responsive to the ever changing conditions in the market. However given the fierce market conditions telcos are faced with, they require cost effective solutions that enable their marketing departments to deliver the competitive edge required to excel within the industry. Analytics tools are relevant to telcos achieving these objectives as they provide capabilities such as customer segmentation to target campaigns to specific groups, and advanced analytics such as real-time, predictive and prescriptive analytics.

Ovum has conducted a survey of 111 telco executives including CMOs, CIOs, CSOs and Heads of departments across Africa, Asia, Central and Eastern Europe, Latin America, Middle East, North America and Western Europe, to understand investment trends, current and future use cases and challenges associated with the use of analytics in driving data-driven marketing operations.

Ovum view

The deployment of business Intelligence and analytics platforms is underway as over 50% of telco respondents to Ovum's Survey on telcos' adoption of analytics for data-driven marketing operations indicate that they have invested in these platforms. However, only about 30% of these respondents are confident in their use of these tools. Common challenges that account for this low confidence rating include the inability to integrate customer data from multiple data sources, inadequate data science skills and ineffective segmentation processes.

11% of telcos' marketing budgets are expected to be allocated to spend for analytics tools. Although this seems impressive, telcos need to prioritize these investments to ensure that data-driven projects deliver on expected goals. In Ovum's view, investment in data management and integration tools forms the foundation of any data-driven projects. The quality of data needs to be maintained to ensure accurate results from analytic tools. Telcos must address the siloed systems and processes that inhibit the opportunity for telco marketers to obtain a 360 degree view of customers to better serve them.

Telcos will require the skills and experience of their vendor partners in resolving this challenge and so the consulting, systems integrations and managed service capabilities will be a plus to all vendors looking to succeed in this vertical.

Key messages

- About 55% of survey respondents are investing in analytics for data-driven marketing operations with a top objective to improve customer engagement; about half considering themselves as advanced users. Majority of the advanced users were from Western Europe. The most common use cases already deployed are customer loyalty and retention, churn management and campaign management.
- Telcos are faced with several challenges when deploying analytics tools. Data integration remains a core challenge as it is an intensive and expensive process to

aggregate data from multiple data sources. Over 80% of respondents indicated it is the most pressing challenge that they face.

- For the next 12 to 18 months, telcos plan to invest about 4 to 15% of opex spend to marketing operations with about 11% of their marketing budgets allocated to analytics tools with specific focus on advanced analytics tools such as data mining and predictive analytics. According to the survey, top spenders in terms of proportion of opex spend allocated to marketing budgets will come from Arica and Middle East while telcos in Africa and Latin America will drive investment in analytics. Use cases to be deployed will focus on the monetization and personalization of services.
- The most advanced analytics users plan to prioritize investments for data management and integration tools. This focus in combination with practices such as identifying core objectives for investing in analytics for data-driven marketing operations, the specific use cases to invest in, and integrating the results from analytics into existing marketing processes, will play a critical role in driving any successful analytics driven project.

Telcos adopt analytics to meet growing demand for improved customer engagement

Telcos need to meet growing demand for innovation despite poor market indications

Telcos are faced with precarious market conditions; revenue growth is slow, being limited by fierce competition from peers, disruptive players, regulatory changes, and market saturation in both mature and emerging markets. Ovum records that total revenues remained stable in 2014, with mobile revenues accounting for slightly higher growth than fixed revenues. However, the mobile revenue growth rate slowed in 2014 and will continue to do so over the next four to five years.

With revenues from traditional voice and data services under constant pressure, telcos are forced to improve and innovate with respect to current business models, current offerings and overall experience delivered to customers. Meanwhile, operational costs and capital investments continue to erode the telco's bottom line, making it difficult for telcos to remain profitable and retain their standing with investors and the market. Other factors impacting on telcos' revenue growth opportunities are falling ARPU levels, and price wars.

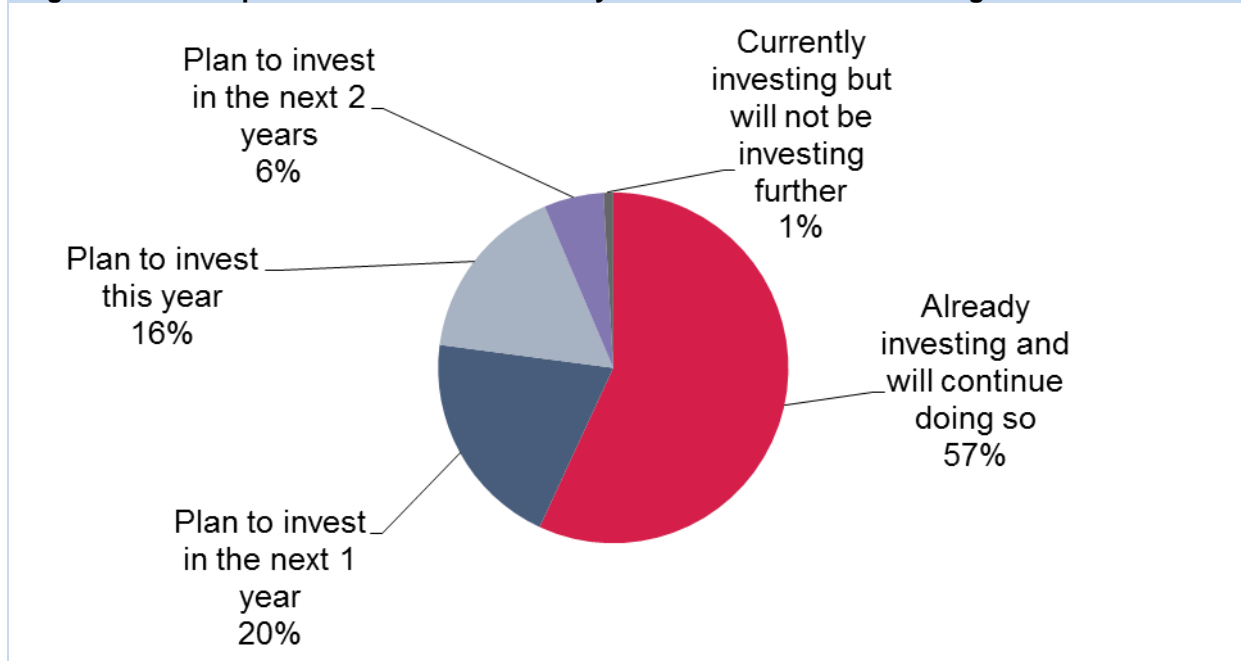
Analytics tools are designed to help telcos resolve these challenges by harnessing the data stored in disparate data sources and analyzing them to obtain deeper insights into who the customers are and their lifetime journeys. The overall objective is to enhance the experience delivered to customers, improve the Telco's competitive position in the market and invariably drive increased growth in revenues.

Over 50% of telco respondents have invested in data-driven marketing

The adoption of analytics is gaining ground amongst telcos. According to our survey of over 100 telco executives, about 55% of respondents indicated that they are currently investing in analytics tools to

support data-driven marketing operations (Figure 1). All but 1% of the respondents that have yet to invest plan to do so within the next two years.

Figure 1: Telcos' plans for investment in analytics for data-driven marketing



Source: Ovum

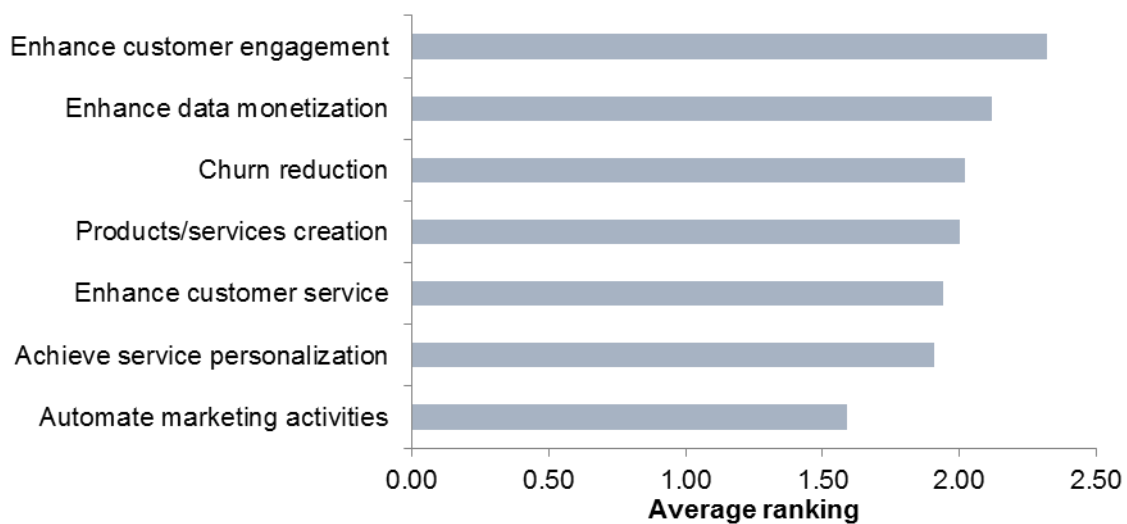
The Western European and Asian based telco respondents accounted for the most dominant users of analytics in their marketing operations. The high adoption of these tools in these regions is indicative of the demand by telcos to develop more data-driven marketing operations. Telcos cannot afford to make decisions based on mere sentiment. This customer data can be found in sources located across different business segments – central and distributed databases, OSS, BSS, and CRM systems.

According to Ovum's survey, the more mature adopters of analytics will leverage data sets relating to application, service and device usage as well as network quality to gain better understanding of the experience delivered to customers.

Bulk of respondents rank customer engagement, data monetization, and churn reduction as top objectives

Given the strong focus on improving customer experience, the marketing business unit is tasked with attracting new customers and retaining existing customers. This they can achieve by understanding the customers' needs and communicating the telcos' capability to meet those needs at the right time. Ovum's survey indicates that the telcos' top objective for investing in tools that enable data-driven marketing operations is to enhance customer engagement (Figure 2).

Figure 2: Telcos' top objectives for investing in analytics solutions for marketing operations



Note: Each respondent selected three options.

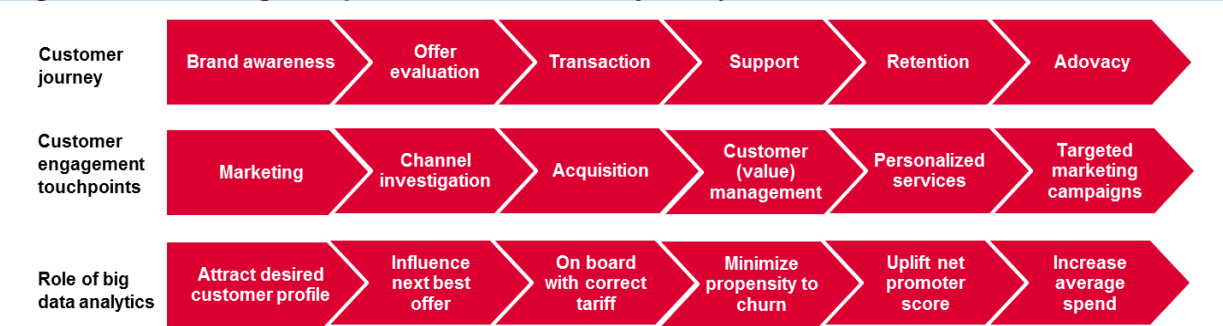
Source: Ovum

Enhancing customer engagement

To engage effectively with a customer, telcos need to understand fully the experience that's being delivered to the customer. This challenge is multiplied by the growing number of engagement channels that a telco has to monitor to communicate with the customers. For example, most customers will use Facebook, Twitter and other social media channels to obtain information and recommendations on existing product and service offers whilst utilizing the same medium to either report a problem or criticize the brand.

Continuous monitoring of the information obtained across all the touch points within a customer's life cycle with a telco can reveal several experience indicators. Figure 3 provides a highlight of the customer touch points that need to be monitored on a regular basis to obtain a proper view of the customer journey and the role that analytics can play to improve the entire customer life cycle.

Figure 3: Maximizing data points in the customer journey



Source Ovum

When a customer is at the presales/marketing/channel investigation phase, telcos can target them for new and additional services by advertising in the geographical locations and channels that are most appropriate to their target market. This maximizes the effectiveness of marketing campaigns. If telcos can provide an omnichannel experience, they can then target customers with relevant propositions and promotions based on next best offers, actions, or price plans. This can also ensure that telcos do

not send offers to customers for services or products that they have already purchased or declined. In turn, this will lead to a smoother acquisition, on-boarding, and provisioning process, and will provide greater assurance that the customer profile will be accurate at the point of activation.

Data monetization

As telcos build out their LTE networks, monetization of the new data services enabled by these networks becomes a challenge. Several strategies have been adopted by telcos to ensure a quick return on investment for these networks. Furthermore, the decline in voice and SMS services places high expectations on data services. In Asia, telcos in the Philippines are faced with declining ARPU from voice and SMS services and so are reliant on mobile data services to make up for the decline.

Tariff and pricing innovation for instance is a major area of focus for telecoms operators today. Operators are trialing new price plans and bringing in new pricing models to differentiate their offerings, attract new users, increase loyalty and retention among existing users with an ultimate goal to monetize their data services. Bharti Airtel's Indian operation, for example, has seen an impressive growth in its mobile data services through the adoption of pricing strategies such as the One Rupee Entertainment store, MyPlan, and One Touch Internet, all aimed at encouraging the quick take-up of data services. The One Rupee Entertainment store and the one touch portal were targeted at subscribers either not familiar with data services or are scared of heavy data charges. The Entertainment Store for instance offered videos, music, games, and photos for just INR1 (\$0.02), along with browsing packages of 3MB of data to access Facebook, Yahoo Mail, Twitter, and LinkedIn for INR1 a day. In 1Q15, Ovum's World Cellular Information Service (WCIS) indicates that the telco saw mobile data revenues increase by 54% compared to 1Q14.

The Chinese based telcos for example, have decided to restructure their pricing strategies for mobile data services to encourage the take up of data services. These strategies will focus on an overall price reduction or reduction in price per quantity of data consumed. China Mobile will be cutting its prices by 35% by the end of 2015, China Unicom by 20% or more per Mb/s of data, and China Telecom by an average of 30% per Mb/s. China Mobile, for example, accounts for the most ambitious deployment of LTE networks and so needs to maximize every opportunity to drive revenues from these investments.

To ensure a fast adoption of data services and subsequently quick monetization, some telcos use analytic tools to evaluate customer profiles and assess their buying probabilities for certain products. These outcomes could be used to provide customers with recommendations of suitable services. These recommendations are based on decision trees that are generated from customer data analysis and integrated into marketing communications delivery systems. However, this approach will only succeed if telcos share, synchronize, and update customer information across all of their channels.

Churn reduction

Customer churn remains a challenge that telcos must resolve to remain profitable. Telcos from Africa, Asia and Western Europe accounted for the highest proportion of respondents to have deployed these three use cases. As the telecoms market becomes more competitive with new service providers launching new services and with OTT players providing alternative services, all at competitive prices, telcos are faced with the task to limit churn through several strategies.

Based on Ovum's Consumer Insights research conducted in 2014, the top reasons for customer churn include poor service performance and cost. In some cases, factors such as quality of service

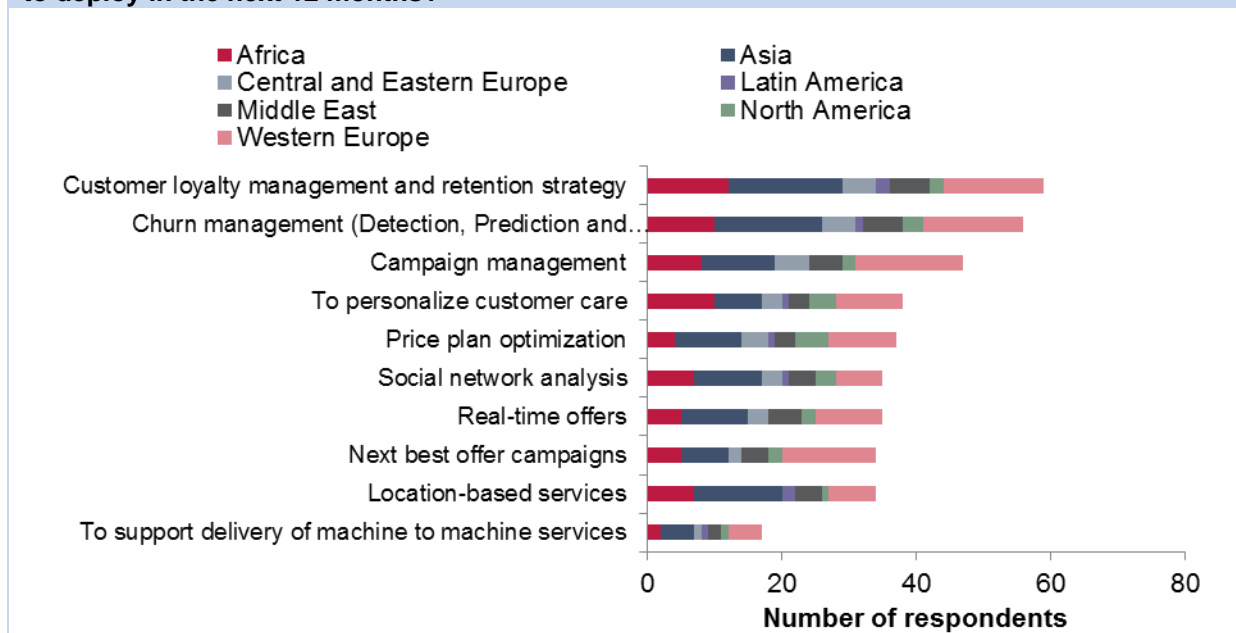
may relate to the device used by the customer or the reach of the service. Given these conditions, customers are willing to move to another provider that meets their demands.

The intensity of these factors leading to churn varies across regions. For example, factors leading to churn for telcos in the emerging markets of Africa and Asia are based on pricing and the services provided. As a result, some telcos have resorted to fierce marketing campaigns with competitive pricing plans to attract customers to their networks. For telcos in the mature markets of North America and Western Europe, the factors influencing churn are based on the overall quality of service delivered to customers.

Customer retention, churn, and campaign management are the most popular use cases

To improve customer engagement, data monetization and reduce churn, telcos have invested in analytics to implement several use cases. Ovum’s survey indicates that customer loyalty and retention management is the most widely adopted use case by telcos, with almost 60% of telcos deploying this use case (Figure 4). Churn management and campaign management are the next-most-popular. About 80% of telcos with well-developed analytics strategies have deployed the more sophisticated use cases of real-time and next-best offers.

Figure 4: Which use cases for business intelligence and analytics have you deployed or plan to deploy in the next 12 months?



Source: Ovum

A number of telcos especially in the emerging markets of Africa, Asia, and the Middle East have resorted to dropping telecoms service prices to attract new customers. However, they still have the responsibility to retain these customers for as long as possible within the network. In most cases, emphasis is placed on their most valuable customers. Some telcos leverage analytics to analyze customers' profiles and their interaction histories to make sure customers are receiving good quality services and that they are fully exploiting the services they have purchased. Others award long term customers or customers who have reached a spending threshold with loyalty points to encourage continuous spend and maintain differentiation.

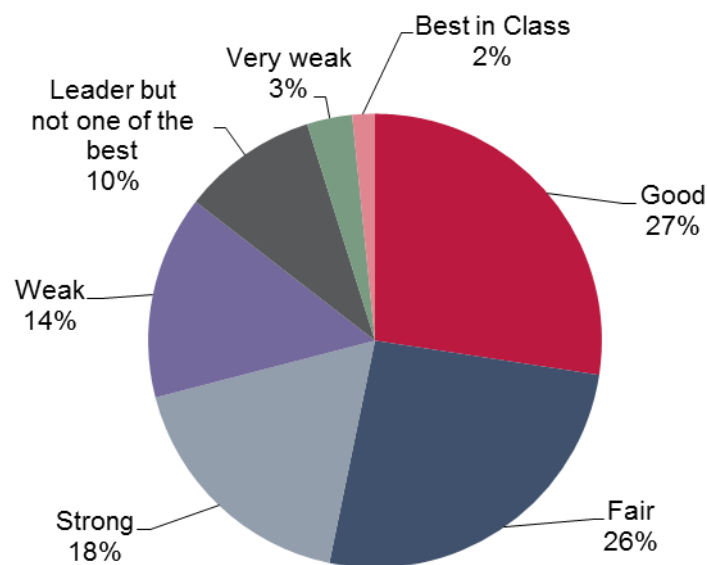
In a bid to retain customers, telcos such as MTN, Vodacom and Vumatel in South Africa launched Fibre-to-the-x (FTTx) services, with Vodacom trialing LTE-A to increase the quality of the services provided to customers and to counter the effect of competition by providing better data services. In the Asian region, Axiata Group has a strong focus on improving customer experience and so continues to develop initiatives to ensure the loyalty and retention of customers.

All of these activities are underpinned by campaign strategies that need to be targeted at customers that would yield the highest gains to telcos as declining ARPUs is a challenge faced by most telcos.

Fewer than 60% of telcos already investing in analytics consider themselves above average in analytics

The current state of maturity in telcos' use of analytics tools implies that telcos still have a long way to go to become data-driven organizations. Our survey of over 100 telco executives indicates that about 30% of telcos consider their use of analytics tools as either strong or best in class (Figure 5).

Figure 5: Telcos' ratings of their use of analytics in data-driven marketing capabilities



Source: Ovum

The Asian and Western European based telcos accounted for 50% of telcos that considered themselves advanced adopters of data-driven marketing operations. Telcos in developed markets such as Japan, South Korea and the United Kingdom adopt sophisticated technologies at a quicker pace compared to their counterparts across other regions. In addition, the depth of maturity of telecoms markets in these regions forces them to seek out new and innovative ways to serve their customers, as well as generate revenues with the competitive landscape considered tougher than in the less saturated markets of Africa and the Middle East.

To enhance the use of analytics tools to develop data-driven marketing operations, there are challenges that need to be resolved as quickly as possible. These challenges are shared by all telcos irrespective of their current rating in the use of analytics tools.

Challenges faced by telcos when deploying analytics tools

Integrating customer data across multiple data sources is telcos' main challenge

Data integration remains a core challenge for telcos. Almost 80% of respondents indicated this factor as a challenge, with more than half of these respondents indicating that it is the most relevant challenge (Figure 6). Current back-office systems holding customer data consist of multiple legacy systems and databases that serve different departments and support different products and services. The data structure for these systems isn't uniform, so some form of data adaptation is required to standardize the data before they can be stored in a data lake or a central data store like a Big Data platform or an enterprise data warehouse.

Figure 6: Challenges faced by telcos in deploying analytics tools



Source: Ovum

Furthermore, these systems come with proprietary interfaces, complicating the data integration phases of the entire data analytics lifecycle. Increasing cost is associated with these phases, discouraging telcos from either making further investments in analytics or slowing down the implementation stages of projects associated with the use of these tools.

Inadequate data-science skills to mine customer data

There is a severe shortage of data-science skills across all industries, telecoms inclusive. The growing adoption of data analytics within the marketing business unit has increased because marketers are often impatient with waiting on IT departments to meet their data needs. As a result, there is growing demand for data scientists to sit within the marketing business unit to understand the overall business activities and develop a storage of all forms of relevant data and models that best

meets the needs of the marketing unit. Recruiting and maintaining these talents are expensive and remains a top challenge for telcos.

Performing effective customer segmentation

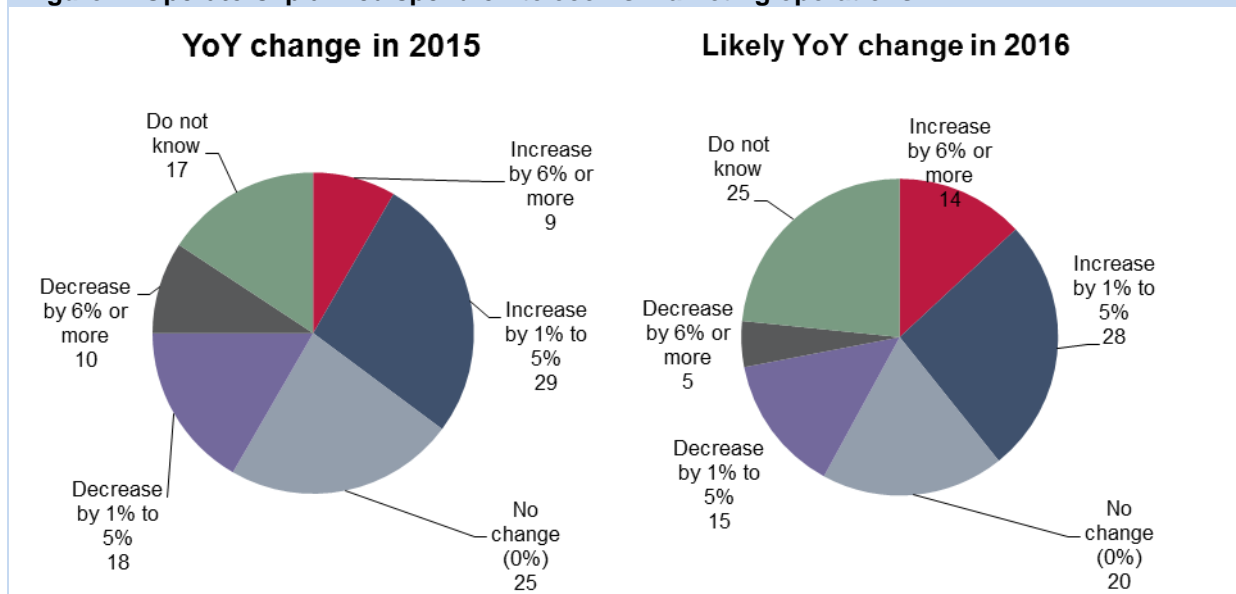
Due to the siloed nature of data sources within the telco environment and the quality of the data stored by marketing departments, it has become difficult to perform customer segmentation. There is also the internal challenge that makes it difficult for business users from different departments to either share or access their data. With customer segmentation dependent on identifying key differentiators that divides their customer base into groups, it becomes highly critical to access customer data held in different department as easily as possible.

What's next for telcos looking to develop data-driven marketing operations

Current investment plans for marketing operations and analytics

There's clearly a need for telcos to commit to the evolution of existing marketing operations toward becoming more data-driven. This will require investments and the support and commitment of C-level executives. The analysis of Ovum's survey results indicates that there is set to be a rise in telcos' investment in marketing operations. The survey shows that almost 70% of the telco respondents spend up to 15% of their operational expenditure on marketing, with telcos in Asia and Western Europe accounting for the highest proportions. Although a higher proportion of respondents have indicated that this spend is expected to either remain the same or decrease in 2015, the outlook is positive for 2016, with more telcos set to increase spend by up to 8% (Figure 7).

Figure 7: Operators' planned spend on telecoms marketing operations



Source: Ovum

According to the survey, the top spenders for marketing operations (in terms of the proportion of their opex spend) will come from African and Middle Eastern markets. As the competitive landscape within these emerging markets intensifies and as the penetration of telecoms services deepens, aggressive marketing strategies will be adopted. In the Middle East, as the build out of 4G networks is underway, marketing strategies that ensure the fast take up of services becomes highly critical. Further investments could be driven by telcos in the mature markets of Europe as they make strategic moves to capture business in this region. For example, French based telco Orange is reshuffling its portfolio of investments in its African markets selling off investments in Uganda and Kenya, and buying up stakes in Egypt and stakes owned by Bharti Airtel in Africa. AT&T on the other has made two acquisitions within the Latin America region. The success of these strategic moves will see more investments for marketing being ploughed into these regions.

About 40% of telcos expect spend for improved customer experience to increase considerably within the next 18 months

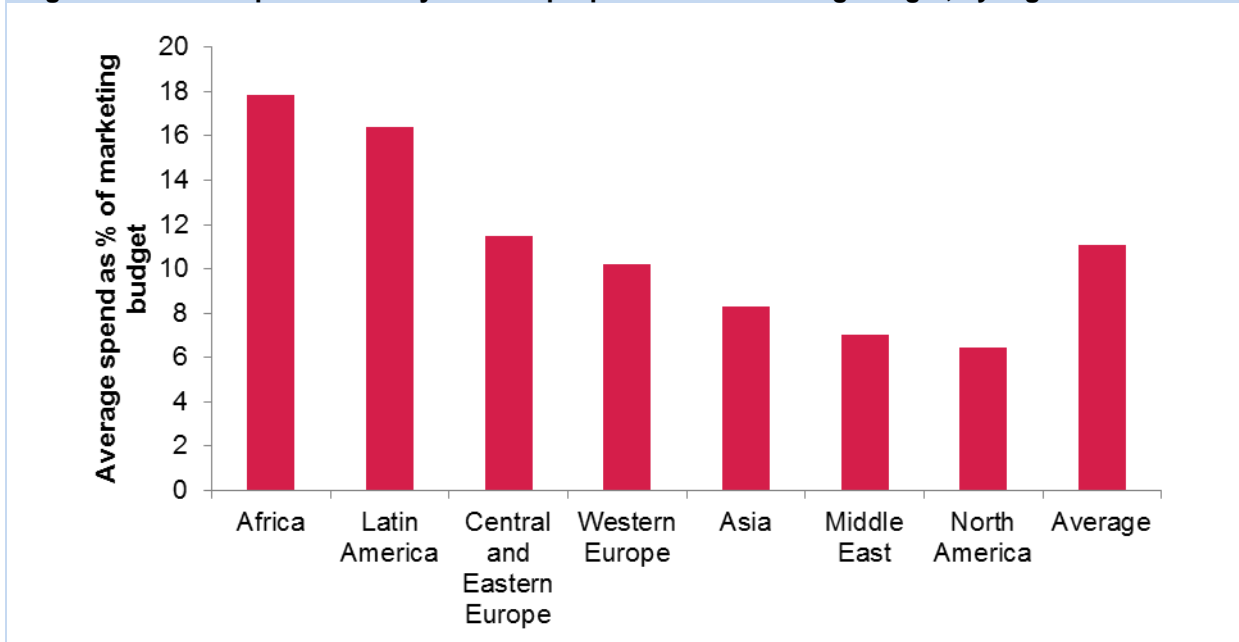
Enhancing customer experience cuts across all areas of telcos' operations and is now firmly embedded at a strategic and tactical level within the organization. A majority of the survey respondents indicated that they expect to see spend for this function increase considerably compared to other functions such as product rollout and innovation and digital media marketing.

Telcos offer poor customer service compared to service providers in other industries such as retail and banking. However, they are looking to improve their performance leveraging analytics tools to get a better understanding of the customers and their needs and to meet these needs by engaging with them in a way that is personal and contextualized. This capability will provide telcos' marketing unit with a 360-view of the customer's activities across all channels, and will enable telcos respond promptly during the course of a customers' journey.

About 11% of telcos' marketing budgets will go to investment in analytics tools

Within the next 18 months, telcos plan to allocate about 11% of their overall marketing budget to tools that enable data-driven marketing operations. Analysis of survey results at the regional level indicates that telcos in Africa and Latin America plan to allocate the highest proportions of their budget on operational expenditure to analytics (Figure 8). The majority of telcos who rated themselves as strong or best-in-class adopters of data-driven marketing operations plan to invest about 5% of opex budgets in marketing operations, with about 10% of this budget being allocated to analytics tools.

Figure 8: Telcos' spend on analytics as a proportion of marketing budget, by region

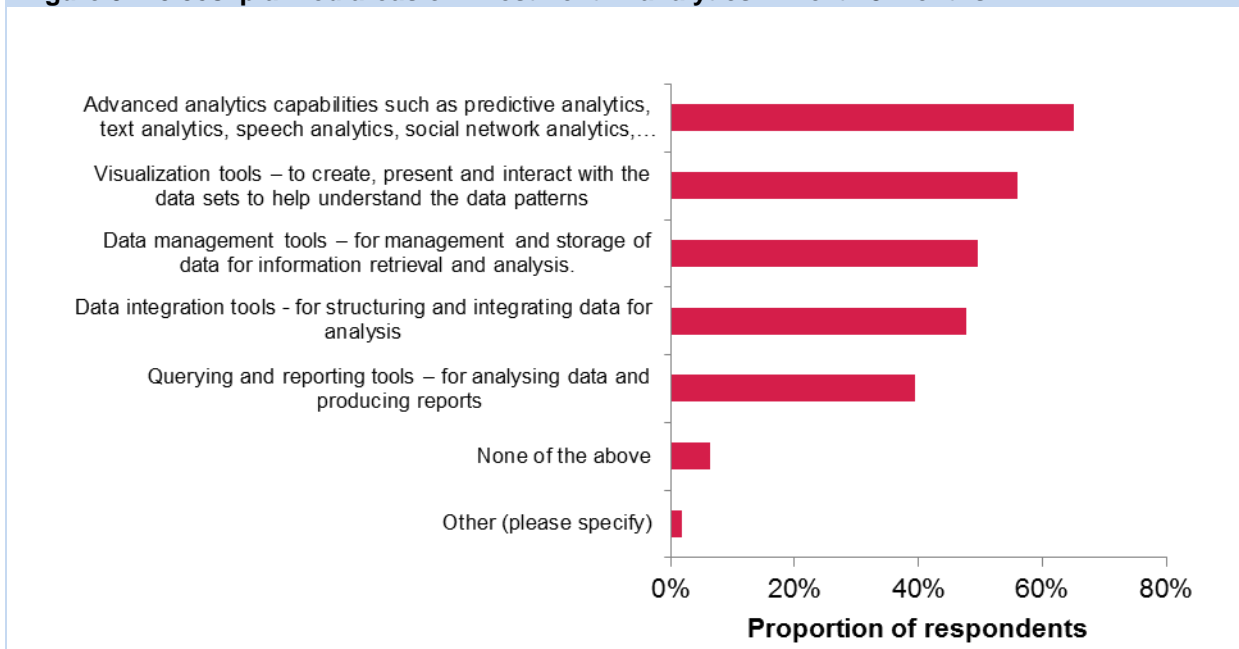


Source: Ovum

Almost 70% of telcos plan to invest in advanced analytics tools

Within the next 18 months, most telcos plan to invest in their advanced analytics features to drive their data-driven marketing operations (Figure 9). For telcos, analysis needs to go beyond the basic reporting and querying activities. Deeper insights into questions such as the exact demographics of customers they plan to target, what services they are consuming and how they are consuming these services, what services they plan to purchase, when is the best time and what is the best channel to engage with a customer to ensure optimum conversion rates are being sought after by telco marketers today. The current analytic tools can't handle these activities at the moment.

Figure 9: Telcos' planned areas of investment in analytics in next 18 months



Source: Ovum

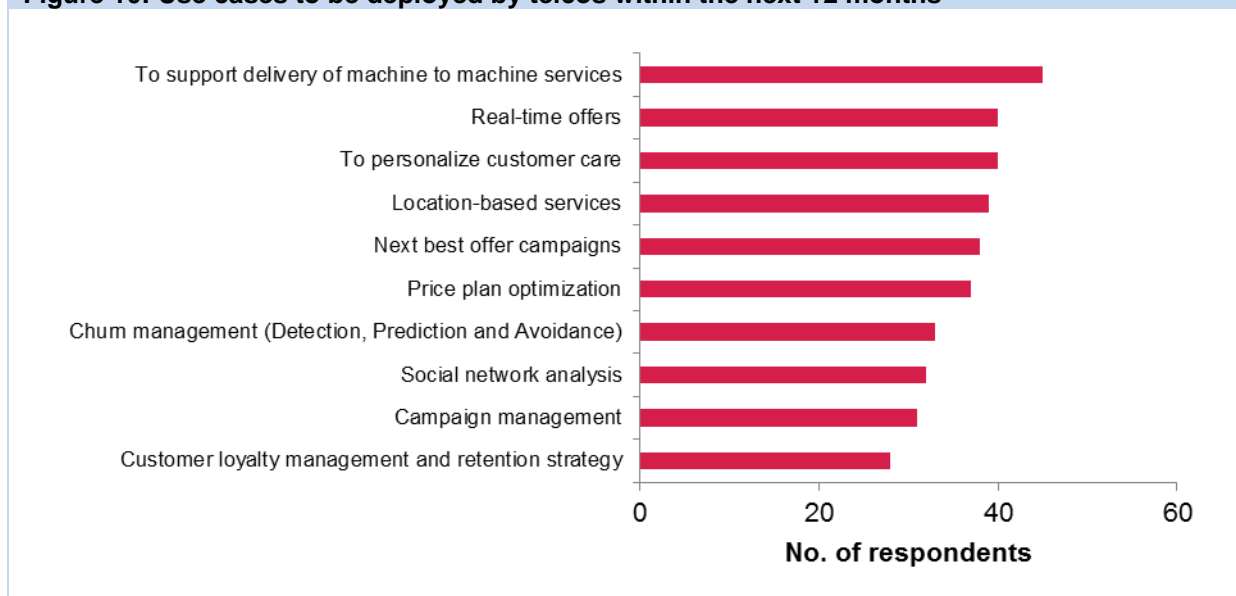
These advanced analytics tools include predictive analytics tools and data mining tools that provide efficient customer segmentations and delivers insights on what customers could do in the future. With this information, telcos are better placed to serve their customers by providing them with relevant information when they are required.

Data integration flagged as a core challenge experienced by telcos in the deployment of analytics tools has a lower proportion of respondents who plan to invest in these tools. There is need to commit investment to these tools as they form the basis for successful and impactful data-driven marketing strategies. It is for this reason that for its BSS transformation strategy in Latin America, Telefonica will be implementing a centralized operational data store to integrate, aggregate and manage data from multiple data sources including charging, collections, ordering and CRM data.

Service monetization, and personalization are the most popular use cases to be deployed within the next 12 months

By 2016, telcos' investment strategies in terms of use cases will shift towards the monetization of new services as well as the contextualization and personalization of existing and new services. Most of the survey respondents plan to roll out machine-to-machine (M2M) services (Figure 10). As telcos consider the rollout of these services as new sources of revenues, they need to leverage information on customers to identify customers who would be most willing to purchase these services and provide them with offers to encourage the take up of these services. Contextual information from secondary sources such as social media has the potential to reveal information about customers that could identify them as potential buyers. For example, telcos could leverage information on customer behavior and preferences identified on Facebook (such as hobbies like cycling) to offer bike tracking or health monitoring services.

Figure 10: Use cases to be deployed by telcos within the next 12 months



Source: Ovum

The plan to deploy use cases around real time offers, personalized customer care, location based services are shared by telcos across all regions with a higher proportion of telcos in the Western and Asian regions. The mature and advanced markets in these regions are tasked with the objective to deliver optimum services to ensure service differentiation.

The delivery of personalized customer care is a primary function for the customer service department. However, with the goal to deliver improved customer experience throughout a customer's life-time with the telco, telco departments need to rely on the insights held by other departments to get the overall view of the customer. In the case of marketing and customer service, the insights generated from marketing units on suitable offers based on the context of the customer at each point in time can be fed to a customer service agent (CSA). By leveraging this contextual information, the CSA can personalize the care delivered to customers and in some most cases used to provide next best offers.

Based on the ratings respondents provided on their use of analytics tools, the majority of the more advanced telcos plan to deploy the next best offer campaign use case. This use case is achieved by combining analytics results based on customer profiles and history and business rules to deliver campaigns.

Telcos seek vendors with deep telecoms expertise

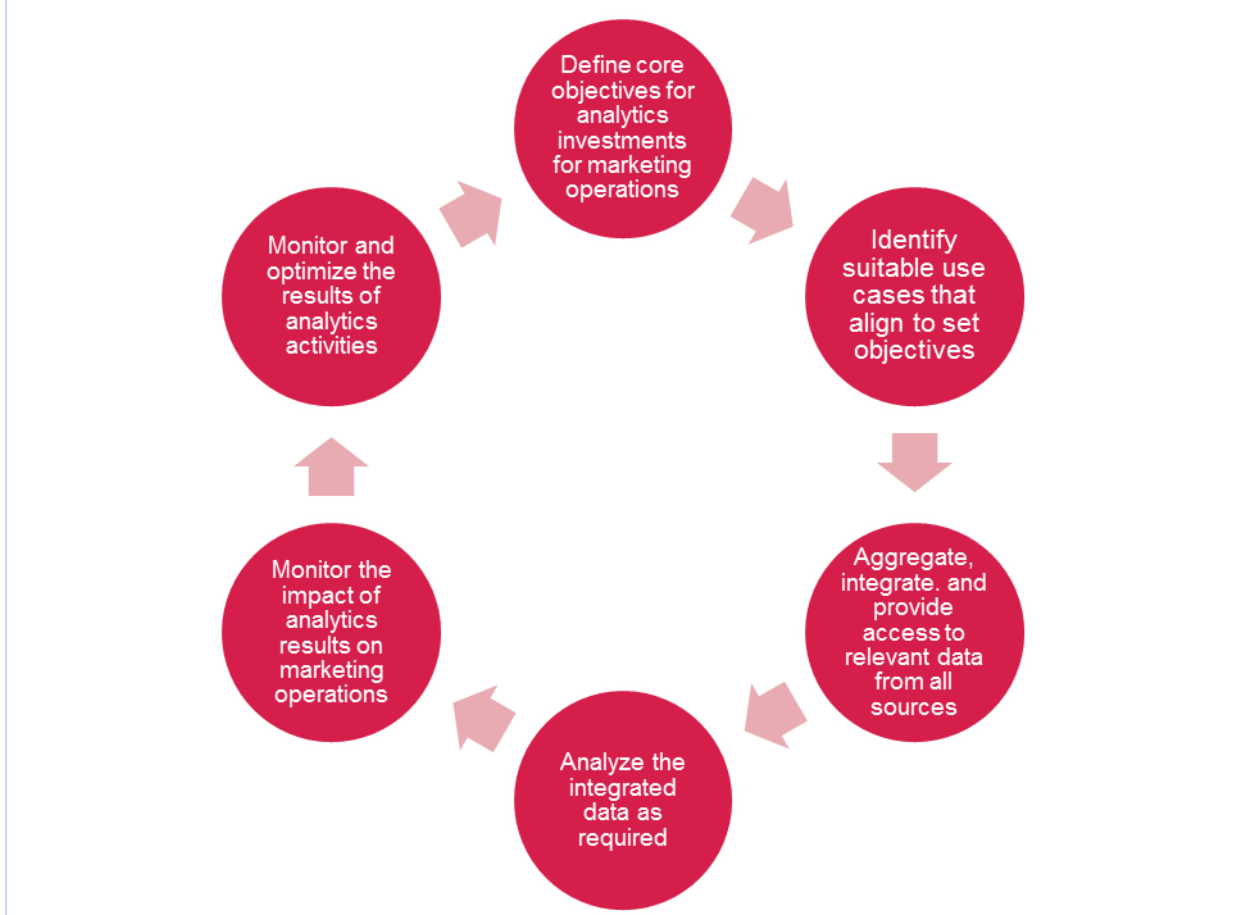
There are opportunities for vendors to develop and market solutions that will enable telcos to make the move towards agile marketing operations. A high proportion of telcos are still not confident with respect to utilizing data to optimize marketing activities. Home grown solutions are difficult and expensive to develop and deploy. Telcos are happy to work with vendors with a strong understanding of the unique nature of the telecoms market, leveraging a suite of analytics tools capable of supporting existing business objectives. When asked "what's a core requirement for selecting a solution provider for analytics for marketing operations", more than half of the telcos indicated that a platform with a complete suite of business intelligence and analytics capabilities (data management, data integration, analytics, querying and reporting) would be the most critical factor when selecting a solution provider with telcos in Africa, Asia and Western European accounting for the highest proportion of respondents.

The requirement for managed services is a priority for telcos. With telcos having limited funds to invest, it's important to identify the most cost effective approach to deploying and using analytics tools. Most telcos are developing confidence in vendor partners managing their IT systems as this not only relieves them of the cost of managing these tools on their own but enables them to leverage the experience and expertise of their vendor partners in developing agile marketing operations.

Best practices to be considered when implementing analytics tools for marketing

A number of activities and processes need to be in place to ensure the smooth delivery of data-driven marketing operations using analytics tools. Figure 11 provides a summary of these processes.

Figure 11: Typical journey of data-driven marketing organization



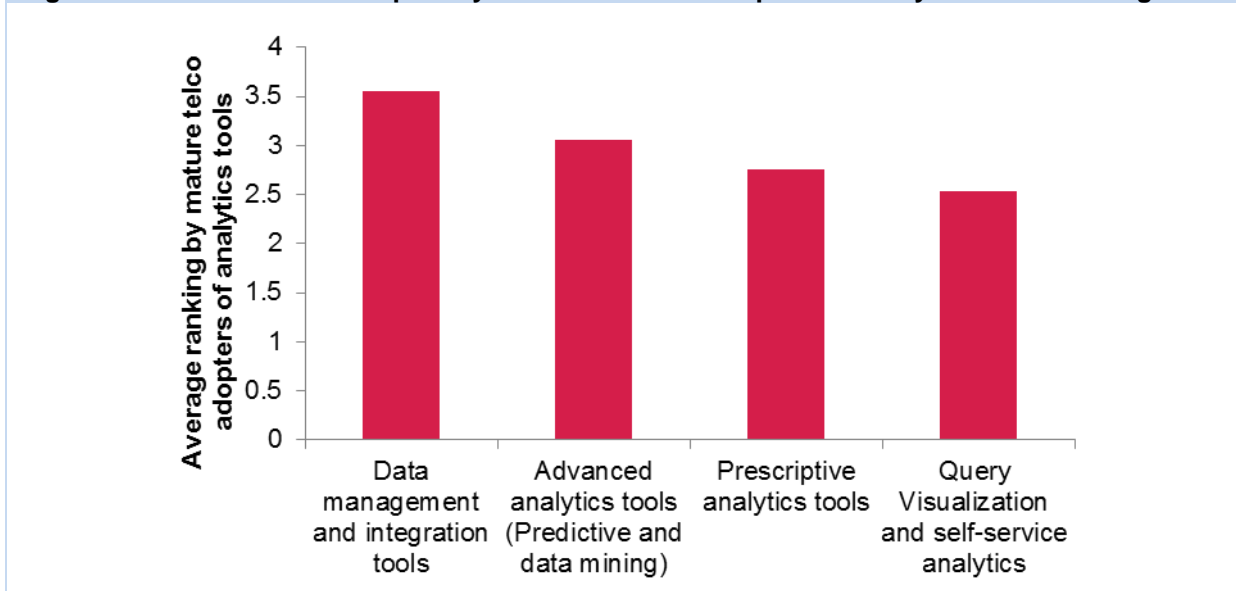
Source: Ovum

The core objective for investing in analytics for the marketing department must be well articulated. Implementation of analytics tools would be irrelevant without an objective to drive and monitor the impact of the investment in these tools. Most telcos have defined the improvement of customer experience as a core objective and this can be achieved in several ways. Telcos like T-Mobile US are challenging the status quo of telcos (as companies that do not deliver to the needs of customers and hence deliver poor experience to customers). Its Un-carrier initiatives were set up to improve the quality of experience delivered to customers by seeking to understand the needs of customers and meeting those needs. Sprint on the other hand has ditched Family plans in favor of shared plans and cheaper unlimited plans based on the overall demands of customers. Overall, objectives need to be in place with C-level executives taking ownership for the realization of these goals.

The next stage in the journey is to identify the most suitable use cases that would generate the most impact in achieving this objective. For example, if the goal is to reduce churn, then the customer segmentation, churn prediction and management and the campaign management use cases can be prioritized. A leading operator in Sri Lanka, for example, uses a recharge frequency model (RFM) to score and segment customers based on transactional value and profitability. The model takes information such as the subscriber ID, their total usage, total number of incoming minutes, their age and so forth and applies a learning algorithm based on a decision tree and logistic regression. The output actions include allowing the customer to churn; to promote new services and offers to increase loyalty and grow the customers' spend or bundle of services; or they may reward their most valuable customers.

With decisions on objectives and use cases already established, the required data sets need to be defined, managed (cleansed and aggregated) and integrated into a central location for analytics to be performed on the data. Data management and integration tools enable these processes. The investment plans highlighted by the mature data-driven analytics telco users (with respect to the prioritization of investment in analytics features) indicates how critical this phase and tools are to the data-driven organization. Figure 12 provides a ranking of the importance of capabilities in which mature adopters of analytics plan to invest over the next 12 months.

Figure 12: Features to be adopted by the mature telco adopters of analytics for marketing



Source: Ovum

Having developed experience in the deployment and use of these tools, the more mature adopters of analytics tools have been able to identify that high quality data provided in a central data store eliminates a major part of the bottlenecks involved in analyzing customer data. A centralized data store also removes the barriers and delays in the access or transfer of data either from IT departments or from the originating data sources to the marketing departments. These tools enable not just data-driven processes but the entire transformation process that telcos need to adopt to deliver digital services.

With data in a central store, basic and advanced analytics capabilities can be performed and their results served to multiple applications. The advanced analytic tool users plan to invest in prescriptive analytics tools as these support prompt provision of recommendations that fast track decision making processes.

Once the analytics results have been generated, they need to be monitored to identify their impact on the company's overall objectives. For example, by monitoring KPIs such as churn, telco marketers can determine the effectiveness of the churn prediction and campaign management use cases (with campaigns targeted at most valuable customers identified with a high propensity to churn). This enables C-level executives to monitor the return on investment for these tools and encourages further investments. Unfortunately, most operators are not monitoring all the necessary KPIs that reflect the impact of analytics tools on marketing operations. Ovum's survey results indicate that telcos aren't monitoring KPIs relating to churn. Most telcos are focused on monitoring the revenue growth and

probably can't relate the increase to revenues to customers who would have otherwise churned or from new customers.

T-Mobile US is an example of a telco that has gone through this journey. T-Mobile US faced severe market conditions between 2000 and 2010 and so struggled to remain relevant within the U.S telecoms market. With unfavorable market conditions, T-Mobile's subscriber base dropped to 78.6% in 2010. The failed takeover of the Deutsche Telekom's US based operations didn't help matters. A new CEO, John Legere and new Chief Marketing Officer (CMO) Michael Sievert were appointed and tasked with transforming the company's fortunes. Plans to change T-Mobile to a non-conventional telco delivering to the core needs of its customers was a main business objective, and strategies were deployed to achieve this goal.

Core to this approach was the need to reduce churn. Customer segmentation and campaign management use cases were identified as relevant use cases to adopt. The customer segmentation into groups helped to identify customer needs specific to the targeted groups. Research showed that customers didn't like the contracts, as contracts kept them locked in and so didn't allow the flexibility to take up new offers until the end of the contract period. Other highlights of the survey include customers' desire to

- keep their phones and pay for only the service used
- bring their own phone and pay for just the service
- upgrade phones on their own schedules
- have an in-depth view of services used and paid for to avoid bill shock
- have access to greater network coverage.

With these insights, T-Mobile's marketing unit developed a roadmap with the focus to meet these customer needs. As of 1Q15, T-Mobile has launched a total of nine substantial Un-carrier (which focuses on an entirely different business model from that followed by the telecoms industry) initiatives designed to address key customer pain points. Meeting these needs relied heavily on the aggregated and integrated customer data residing in multiple data sources. Data points associated with the customer's life cycle from the on-board through to the on-going service stages were monitored consistently. Direct access to the data sources implied that the marketing unit could deploy campaigns as quickly as required. Customer segmentation was further refined to deliver specific offerings to target customers. Marketing communications were developed to reach customers across all channels with a unified messaging tailored to each customer. Consistent monitoring of campaigns, through segment analysis, allowed T-Mobile to understand what customer segments benefited from the offers, and then redefined the offers for segments which did not respond favorably to the campaigns.

The evidence of T-Mobile's success is in the company's market-leading growth in subscribers, revenues, and EBITDA over the past 18 months, as well as the improvements the company has made to address customer churn. The company has increased overall market share from 12.7% in 2Q13, the first full quarter after the first Un-carrier initiative and also the first full quarter after acquiring MetroPCS, to 14.6% in 4Q14. It has increased its overall subscriber base during this period by 25% and its branded postpaid subscriber base by 31%. Growth in postpaid subscriber base proved the success of the Un-Carrier campaigns as previous pre-paid customers with strong credit worthiness chose its Simple Choice post-paid plans. T-Mobile customers are growing and they are also staying with T-Mobile longer.

An Asian based telco has adopted this set of best practices to improve its revenues. In this case, the customer engagement use case was selected to drive personalized campaigns to customers. By monitoring subscribers preferred channel for engagement, the telco identified the end-of-call notification SMS messages as the most relevant channel of communication to customers. The telco then utilized contextual data on each customer from its intelligent notification system (that provides information on the customer's usage and billing history) to enhance the communications delivered to customers. The telco monitored the impact of this strategy on its campaigns and by the end of 2014 realized an increase in its overall revenues.

Conclusion

Data is key to the success of any telecoms marketing initiative and must be utilized for the business to achieve any revenue growth. However, to succeed at developing any data-driven projects several factors must be considered. On the business side, commitment from the telco's leadership teams is a must to ensure that the buy-in and implementation of these tools, the development of a clear business plan on the use of data (with respect to use cases) and the elimination of internal conflicts that arise due to data sharing have to be resolved. Technology cannot overcome all of these challenges. As a result, business management skills need to be applied to emphasize the relevance of analytics initiatives to the marketing operations unit as well as other parts of the business.

On the technology side, effective marketing operations need to be driven by the context of the customer throughout the customer lifecycle. However, the depth of context (with respect to the data sources required) required for each use case is dependent on the data requirements for each use cases. Although social media provides higher levels of contextualization, billing and customer's CDR records can provide more information on members of the customer's immediate and most critical calling parties.

When developing a strategy for data-driven marketing operations, start with use cases that deliver measurable impact on the telco's core objectives. The current focus is to improve revenues as well as customer experience. Use cases such as customer loyalty and retention, campaign management and churn management have been seen to deliver some impact on telcos' overall revenues. Once success is achieved, key learnings from the deployment of these use cases can be extended into other use cases.

Appendix

This survey and paper was researched, authored and produced by Ovum in association with Mahindra Comviva, as a project assessing the current state and future market direction of data-driven marketing operations for mobile operators.

About Mahindra Comviva

Mahindra Comviva is the global leader in providing mobility solutions. It is a subsidiary of Tech Mahindra and a part of the USD 16.7 billion Mahindra Group. With an extensive portfolio spanning mobile finance, content, infotainment, messaging and mobile data solutions, Mahindra Comviva enables service providers to enhance customer experience, rationalize costs and accelerate revenue growth. Its mobility solutions are deployed by 130 mobile service providers and financial institutions in

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Ovum Consulting

We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum's consulting team may be able to help you. For more information about Ovum's consulting capabilities, please contact us directly at consulting@ovum.com.

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