



White Paper

The Big Data Gold Rush: Monetizing Rich Veins of Data within the Telco

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IDC OPINION

Five years ago, the world was a different place. The CMO would use data on an ad hoc basis to support sales and corporate strategy. Over-the-top (OTT) players focused on the inter-relationship between search and placing targeted ads. While rich with data, the telco's core business was providing the underlying infrastructure that supported the transport of voice and data services from one location to another. In a short amount of time, much has changed. Most industries, including telecommunications, is undergoing a transformation in which consumer loyalty has decreased as competition from non-traditional competitors is on the rise due to the low barriers of entry for Third Platform technologies. Mobile operators have an acute problem as well. Traffic volumes are doubling every two to three years. The average revenue per user (ARPU) is relatively flat while the consumers' expectations on quality of experience are increasing dramatically.

Success in this new digital world depends on an organization's ability to know their customer, even if they don't. This means going well beyond traditional data sources to the non-traditional, such as location, psychographics, online transaction records, through to the mining of digital assets. We observe that consumers are willing to exchange privacy for convenience and user experience. Service providers will increasingly look to the data that they own to improve customer experience, but also drive new top-line revenue streams.

This shift in the collection and aggregation of data is also being met with the rise of the chief marketing officer (CMO). This role has become critical for most organizations. They will need to have a transformative skill set, able to embrace innovative ways to reach customers in a personalized and targeted way with data-driven offerings. IDC predicts that by 2015, one in three marketing organizations will be able to provide content at every stage of a customer's buying journey. The need to balance the trio of content, technology and data across their customers' journey will see the largest budgets, greater prestige and highest rate of customer satisfaction. By 2017, 38% of B2C companies will use multiple data sources to personalize a high-value customer journey. Amazon and Netflix are champions, in part, for being able to collect deep, diverse and granular data about their customers.

In this context, telecom CMOs have trump cards up their sleeves: massive amounts of highly valued, unique data about their customers. Carriers, through billing systems, cell towers, access points, or core routing technology, have the ability to collect, aggregate and store this data at a national scale. While carriers have for years pointed to a range of regulatory obstacles, they are now showing more willingness to push the boundaries through opt-in clauses, or taking additional measure to secure or

anonymize data. There is a general acceptance that costs of not leveraging data to provide the value and loss of revenue outweigh concerns over regulatory matters that are opaque at best.

METHODOLOGY

IDC utilized a combination of onsite executive briefings along with insights gleaned from primary research from IDC's C-Suite and CMO Barometer research across the Asia/Pacific region. IDC generated "buy-in" from internal briefing session aimed at bringing together relevant key stakeholders such as line of business (LOB) and IT/operations executives. IDC created the agenda, with an emphasis on the research, case studies and understanding the issues.

Situation Overview: Emergence of the Telco CMO as a Data Evangelist?

Demands from the C-suite to increase customer engagement, share of wallet and expand into new, non-traditional markets is changing the role of the CMO. The CMO is rising as a digital power broker within the organization. Those CMOs using big data to advance the digital agenda indicate that the positive impact on marketing initiatives has been significant. As a result, 41% of telecom CMOs are increasing their digital marketing spend at the expense of conventional marketing initiatives, with 32% increasing spend on marketing automation and IT spend.

Measurement of ROI from lead generation or social business initiatives is becoming more common in countries in the region. However, the rise in digital marketing means that marketing skills shortages are becoming technology related. Three of the top recruitment areas are technology focused (marketing automation tool skills, data analysts, and IT talent with marketing skills), leading to positive trends in outsourcing and partnering toward digital marketing solutions. Whilst most companies are still focused on traditional customer-nurturing approaches, over half now recognize that data capture, cleansing, and governance is critical to lead generation.

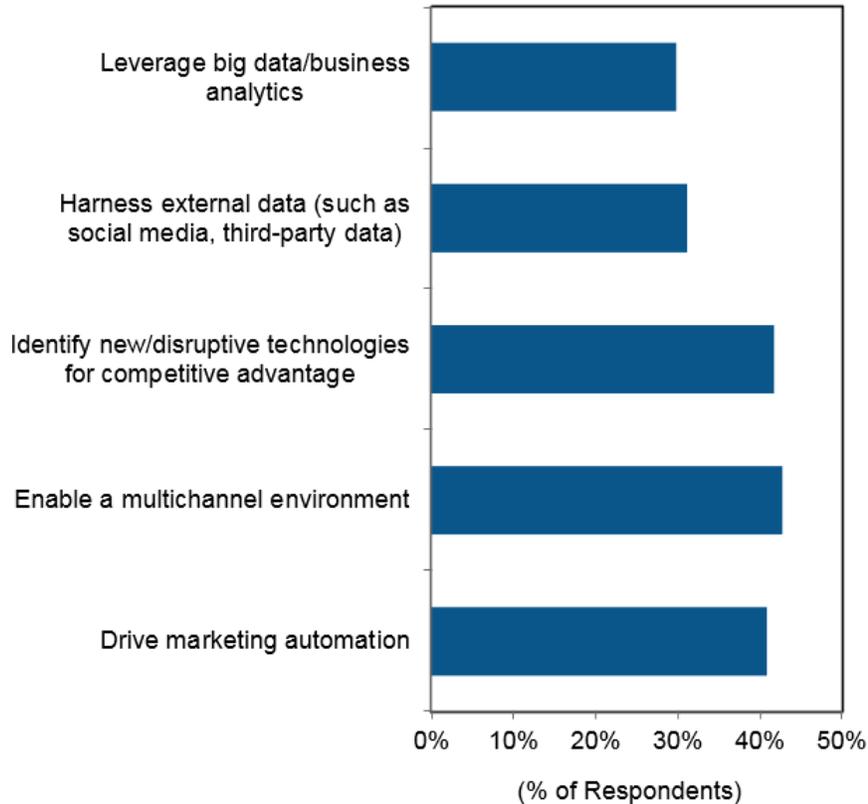
As an industry, the telecom sector has the broadest and most personal data about their customers of any in the private sector. Only telcos know where their customers are at all times, who they are with, what they search for on the Internet, who they call, who messages them, and even some of the purchases they make. This massive trove of information is driving deep and fundamental changes. More than any other industry, they have the data and the technical capabilities to analyze customer behavior and buying intentions should they choose to do so. Current use cases have been relatively conservative focusing on low hanging fruit such as network utilization, optimizing ARPU, preventative maintenance, and device analytics. Telecom providers will continue to spread analytical capabilities across more domains to gain more insight on customers, network operations, infrastructure and even finance (e.g., revenue assurance, accuracy of billing, and credit risk).

However, the future of analytics is now being driven by the CMO department and pushed into new areas that help drive top-line revenue or increase spending among an existing customer base. What is different is a new wave of telecom CMOs who are being motivated by corporate goals and personal KPIs to find ways to monetize data on their own or in partnerships with others. A number of areas are emerging such as event-based marketing, behavioral profiling, service personalization through better bundling and open application programming interfaces (APIs), precision advertising using location analytics, and working with multiple stakeholders in improving omni-channel engagements and driving brand affinity.

FIGURE 1

New Requirements for the CMO

Q. What are the three most important IT requirements to help you and your department achieve the KPIs for 2014-2015? (Non-weighted)



N=682

Source: IDC's Asia/Pacific (Excluding Japan) CMO Barometer, 2014

- 48% of marketing organizations in Asia Pacific will invest in solutions during 2014-2015 to allow them to engage effectively in hyper competitive marketplaces (source: IDC CMO Barometer 2014).
- 49% of marketing organizations seek solutions to allow them to extend their customer engagement and support models (source: IDC CMO Barometer 2014).
- At the same time, the number one concern from CIO/CMOs in the region is lack of IT budget and restrictions of skills.

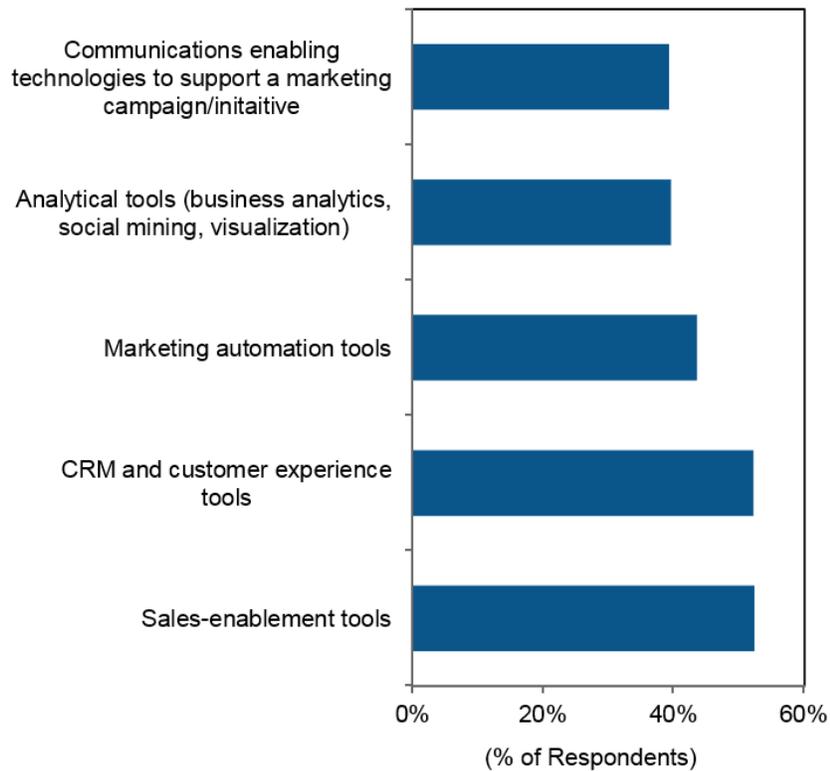
As a result, “by 2020, one-third of the top 20 market share leaders in most global industries will be significantly disrupted by new competitors that use the 3rd platform”. IDC sees that gaining a better understanding of the desires and propensities of customers is a major influencer on the role of the CMO within many enterprises. This will drive investments to allow greater capture and exploration of new and existing data sources, enabling more users to access and leverage the resulting information.

As a result, IDC observes a change in budget allocation, as more marketing funds are moving to sales enablement, analytics and marketing automation. This move, among others, is driving IDC's expectation that the big data technology and services market will continue its growth from US\$548.4 million in 2012 to US\$2.38 billion by 2017, representing a compound annual growth rate (CAGR) of 34.1%.

FIGURE 2

Marketing Spend

Q. Where does marketing spend its budget other than direct marketing activities?



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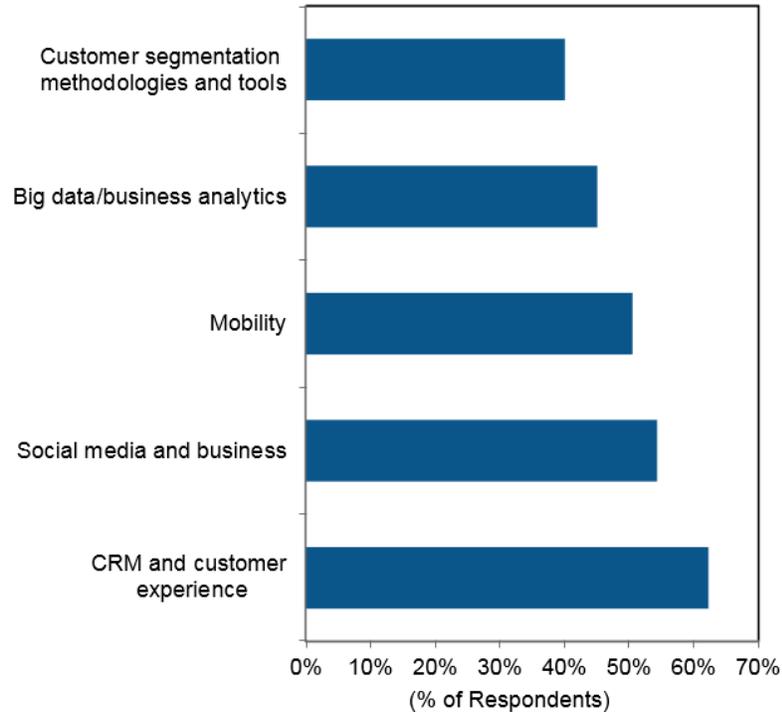
Source: IDC's Asia/Pacific (Excluding Japan) CMO Barometer, 2014

Carriers (and their marketing teams) have unique strengths that are ultimately transformative – massive amounts of proprietary data about their customers and a strong trust based relationship with those customers. The challenge for telcos is their ability to derive value from that gold mine of data and support those in the market who have been successful in delivering online commerce solutions. Telcos need fresh thinking and applications to help them better navigate the digital world. Recent surveys across the Asia/Pacific and ASEAN regions show a movement toward investments in customer relationship management (CRM), customer experience and social media tools in marketing spend.

FIGURE 3

Technology Focus

Q. Which technology areas in your opinion are important to marketing to compete effectively?



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Source: IDC's Asia/Pacific (Excluding Japan) CMO Barometer, 2014

By virtue of managing the transmission of voice and data across their networks and the ownership of the customer endpoint, carriers have vast amounts of data available to them.

Telcos have the broadest and most personal data about their customers of any industry in the private sector. Only telcos know where their customers are at all times, who they are with, what they search for on the Internet, who they call, who messages them, what types of applications they have downloaded and even some of the purchases they make. This enormous trove of information is driving deep and fundamental changes for some telcos. More than any other industry, they have the data and the technical capabilities to analyze the behaviors of their customers. There are many use cases being investigated within the industry, including network utilization, optimizing ARPU, preventative maintenance, and connected smart devices.

However, the profiling of existing customers for churn prevention and advertising is top of the agenda for executives, followed by target customer identification and conversion.

- **Customer experience.** Telecom providers will look at point solutions on top of its operations support system/business support system (OSS/BSS) platforms to drive a better quality of experience for their customers, which in turn is designed to reduce churn and increase higher customer satisfaction ratings. Telkomsel in Indonesia analyzes and prioritizes network traffic to ensure high-value customers have a better mobile broadband experience.

- **Customer insights.** These will look at integrating OSS/BSS solutions with CRM tools to drive next-best actions and outbound data driven offers. These are horizontal solutions which would be deployed on Hadoop clusters. Korea Telecom and Vodafone are two operators, for example, that have taken such an approach.
- **Monetization.** These programs will often use a mix of OSS/BSS integration with CRM tools and social media to act as a trigger to an event which tries to understand customer sentiment and influence behavior during the lifecycle (e.g., researching a product, receiving first bill, and contacting the help desk). Optus has pushed to become Australia's "most loved" service, through renewed leveraging of social engagement. T-Mobile has had similar successes in capturing market share against rivals such as AT&T and Verizon through the use of social media.
- **Commercial offers.** Operators in these programs are looking at real-time analytics to drive new top-line revenue streams. Some of the key areas for operators now is around precision advertising using a combination of location-based services, search and integration with back-end systems. Verizon and Sprint are offering these capabilities in the U.S. market through separate business units. Telefonica's "Smart Steps" has been successful in U.K. and Spain. SingTel's acquisition of Amobee integrates advertising platforms with location based services.
- **Cross-industry with Internet of Things.** Telecom providers are also driving new opportunities in key areas such as wearable technology (e.g., healthcare and retail brands) and the digital home (e.g., smart meters and home security). In some business models, the telecom will partner with other industries and will waive monthly recurring charges in exchange for data which can enrich and resell for commercial profit. For example, Vodafone partners with Tower Watson, a professional services company, on reselling usage-based driving data to motor insurance companies.

Interestingly, that same data has potential value for other organizations, making it a saleable asset. Telecom carriers are already accustomed to the storing, searching, aggregating and sharing of key network information, both to support network reliability and security management and customer billing. Packaging that data for commercial use is an extension of this normal course of business activity.

The Value Proposition of a Telecom Provider

People trust their telecom provider with a lot of personal information, where many are inherently suspicious of Facebook, Google and others when it comes to what they do with personal data. While fraudulent use of services like Skype, Dropbox and Facebook has graced the front page of newspapers, data loss instances from telecom providers is a rarity.

Deriving value from telecom data relies upon data being aggregated and anonymized. The fact that an individual handset has travelled from the city to the airport is of little consequence. However, knowing that a group of people move from the city to the airport during particular times of day and night becomes critical to planning parking, taxi and other transportation patterns between those two locations.

The move from a "data push" marketing model to "consumer-led discovery" forces three fundamental truths onto CMO thinking.

Firstly, enterprises are realizing that their competitors are not their competitors. With the barriers to entry into many traditionally closed product areas falling (e.g., retailers becoming insurance and financial product providers, online hosting service providers offering voice calling), strategies that defend against traditional competitors encroaching on market share are no longer enough.

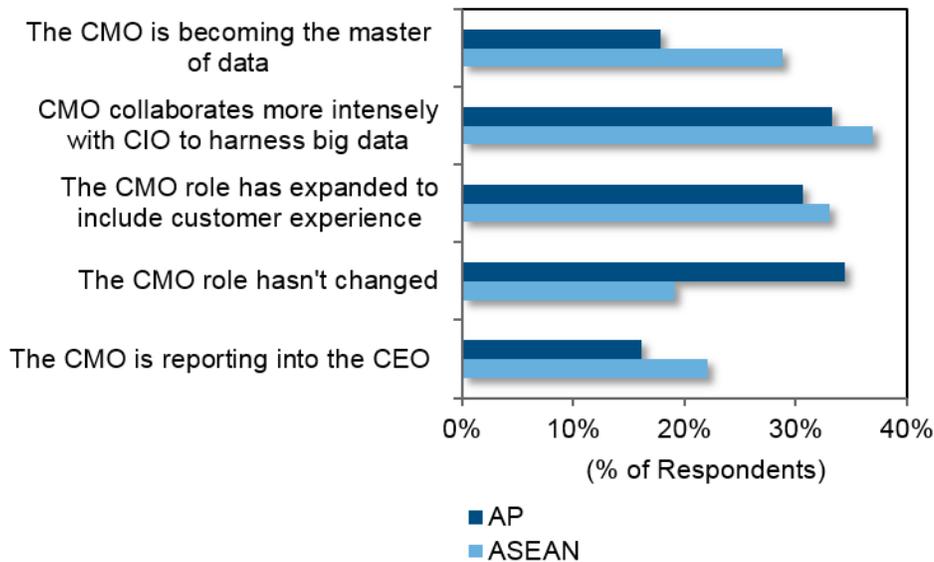
Secondly, marketers are realizing that dusting off the old faithful marketing plan and technology road map is not enough. Eventually, everyone will have access to the same cutting-edge infrastructure. Therefore, the competitive advantage of having best-of-breed solutions will decrease over the next five years. To maintain their competitive advantages, companies that have already invested heavily will have to look beyond point solutions. CMOs should be thinking about how their enterprise application and data resources can be managed from the back office, through every customer touch point, all the way to the mobile app.

Adapting to a new world dominating by IDC's Third Platform technologies requires new thinking because of a third reality – customers expect enterprises to know them, even if they don't. This means that customers expect enterprises to understand their needs, anticipate their preferences and offer them what they want, when they want it or face being substituted by those competitors mentioned earlier. As a result, CMOs are changing their roles to master the data and collaborate more intensively with the CIO.

FIGURE 4

Changing Roles

Q. Is your role as the head of marketing/CMO changing in view of the rising importance of big data analytics?



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Source: IDC's Asia/Pacific (Excluding Japan) CMO Barometer, 2014

While there's much value to be gained from anonymized, aggregated data, there's also a growing expectation of more personalized information and services, particularly among the so-called millennial generation, who have grown up sharing large amounts of their lives on social networks. These people demand that information come to them, rather than having to look for it. To help companies provide this kind of service, telecom CMOs can utilize internal data to provide real-time value in content marketing. By combining handset location with demographic data and buying patterns and

preferences, locations such as retail malls can understand the flow of customers coming through their environments.

Conversely, an individual who opts in to a personalized service may take advantage of offers and incentives shared by retailers in their area. The WEVE joint venture in the U.K. comprises data from Vodafone, O2 and EE to provide targeted marketing content in retail environments by profiling and categorizing groups based on mobile usage and payment data. Using consumer, call records, spend demographics and location data, retailers participating in the service were able to make targeted offers to individuals in shopping locations. Coupons, specials and discounts could be shared with a high degree of opt in to the program from mobile users.

Opt-in allows data owners to choose how their data is used, with frequent updates on privacy policies and data sharing capabilities. This puts the customer in control: those who are happy to share pretty much anything in return for operator services can sign up once and forget about it, where more cautious users can be more selective with what they allow their data to be used for. Recently, Verizon Wireless was able to dramatically increase its opt-in customers by introducing compelling content. In this case, it developed a sports application with the NFL and ESPN to provide live streaming of local games. In order to receive the content, customers were required to opt-in for advertising.

Existing models employed by search engines like Google, using search history, profiling and demographics to optimize search results and Amazon.com, offering suggestions based on choices made by other online shoppers are examples of data given up by consumers in exchange for an improved online experience and enhanced customer engagement.

FUTURE OUTLOOK

Telecom CMOs are not forced to act as bystanders in the monetization of data. Given the need for real-time or near-real-time analysis of data (to support proactive network management, isolation of security threats and management of voice and data roaming across mobile networks), telecom providers are ideally placed to provide real-time insights into usage of digital devices. The explosive growth in smartphones, tablets and laptops, coupled with the convergence of WiFi and mobile, means that the amount of location data available is similarly expanding.

IDC research shows that the average person currently interacts with the digital universe via 33 connections, and that these numbers are growing. While email, mobility and public identifiers (government and health identities as an example) are relatively static, omni-channel retail and social media identifiers make up 40% of interaction points. This number is growing. In response, enterprises are investing in data analytics and the data to drive the analytics engines.

The issue of better utilizing customer data to identify trends and areas of improvement was ranked fourth by respondents in IDC's CXIT survey in 2014, behind the need for timely response, a comprehensive customer view and consistent experience across channels. This ranking shows that basic infrastructure problems challenge the customer experience and that as soon as these major headaches are sorted out, applying big data to the customer experience is likely to become the next big thing to be addressed across most industries.

Customer data, along with the people holding the skills to exploit it, can represent the key asset a company holds and, as competition increases, it becomes essential to be able to deploy and monetize it.

CMOs utilizing big data analytics indicate significant positive impact on marketing initiatives, particularly from Website conversion, lead scoring and dash boarding, lead management and prioritization. In Asia/Pacific, analytical tool deployment remains low in marketing departments, but those that have embraced big data analytics have seen significant expansion of the CMO role. A major shopping center operator with presence in most of the markets in Asia/Pacific reports that the close collaboration between CIO and CMO functions has resulted in better utilization of technology resources and faster rollout of programs aimed at building customer engagement.

Despite lead scoring and dashboarding rating low for lead generation, Asia/Pacific marketers believe that big data analytical tools have significantly improved these capabilities within their organizations – the key for vendors now is demonstrating the value of lead scoring and dashboarding. ASEAN CMOs show a lower-than-average utilization of big data analytics for internal marketing, sales ROI measurement, and sales prioritisation as compared to the overall region. There exists a perception of a gap between marketing and sales teams, which is seen as a contributor to this low rating.

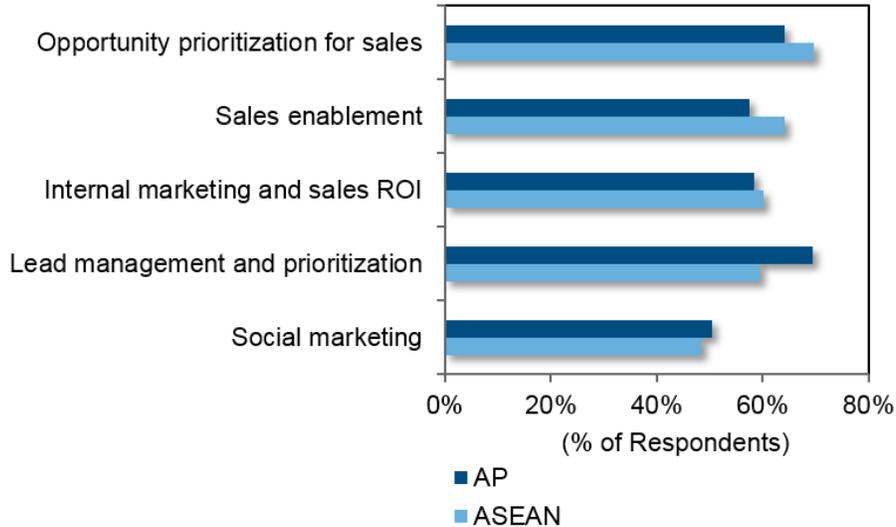
Though creative talent is valued highly both across Asia/Pacific and within ASEAN, the operational effectiveness of the CMO in driving both sales enablement and marketing automation, ranks a very close second, highlighting the pivotal role played by the CMO. The operational triangle of CEO, CIO and CMO is seen as the key to building a closer relationship with customers.

Lack of talent in both data analytics and customer segmentation and profiling is seen as an issue for 40% of CMOs in ASEAN. As a result, 42% of CMOs in ASEAN indicated they would seek outside assistance in progressing programs around customer segmentation and profiling. This willingness to engage with third parties was significantly ahead of the average for Asia/Pacific, only slightly lagging mature markets like Australia and Hong Kong.

FIGURE 5

Technology Deployments

Q. What IT tools/systems do you deploy currently and expect to deploy in 2014-2015 within marketing-2014



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Source: IDC's Asia/Pacific (Excluding Japan) CMO Barometer, 2014

After implementation of CRM systems including contact centers, ASEAN CMOs prioritized business analytics and big data analytics as solutions CMOs expect to deploy in 2015.

Telecom Big Data Use Cases

Once a big data analytic solution is in place, telco CMOs can more easily introduce new capabilities that will increase revenue and customer satisfaction, and reducing customer acquisition and retention costs. These capabilities include location-based services, intelligent marketing campaigns, social media and intelligent network management. The availability of off-the-shelf tools and cloud-based analytics platforms is hastening the move to understand the enterprise data.

Location-Based Advertising

Players in the advertising industry are always looking for a new medium for effective advertising. Mobile advertising has been established for a number of years and OTT players such as Google already have a significant market share. However, there are many more players in this growing market, and cloud service providers (CSPs) have some significant advantages to offer advertisers.

They have access to a much wider and deeper set of data, including:

- Customer data based on static information such as age, gender and home address.
- Device information regardless of manufacturer or operating system.

- Usage information on content, applications and Internet sites visited and on the method, time and frequency of interactions with other users.
- Location information relating to users' current location and places they have visited.
- Detailed information on banking services and even transactions users have carried out.
- They have instant access to a vast audience, with information on the number of live mobile devices and the amount of time spent on them.

They have the ability to communicate by SMS or MMS, using a near-real-time message delivery mechanism that is not dependent on an Internet connection.

Intelligent Marketing Campaigns

Traditional market research relies heavily on sampling and survey work. The increasing number of smart devices that individuals carry provides the possibility of collecting an almost-complete data set rather than just a sample.

Market research suffers from lag – the time taken from the collection of the data, through to organizing and deriving valuable insights from it. Utilization of real-time or near-real-time data combining customer usage, location and buying pattern data can provide continuous and near-real-time market insights.

For example, this kind of data collection could enable infrastructure planners to:

- Know exactly where a large group of individuals go after attending a football match, in order to see what transport requirements are necessary.
- Study the travel habits of commuters to decide which urban transit services need to change.
- Provide information on the travel, purchasing and payment habits of mass populations to help site new retail stores or facilities such as hospitals.

Globe Telecom in the Philippines is the number 2 mobile provider, offering service to over 27 million subscribers with the majority of those prepaid. As balances drop toward zero, subscribers have a choice to top up or migrate to another provider. Using internal payment and usage data along with subscriber demographics, Globe was able to reduce the time taken to launch new products or promotions aimed at mobile subscribers, resulting in a 600% increase in retention levels. Utilizing existing customer data led to increased agility with campaigns personalized to the consumer.

CHALLENGES AND RECOMMENDATIONS

While the lure of data monetization will be attractive to many telecom CMOs, the time involved in extracting the data, making sense of it and organizing it in a form that is useable both internally and externally, can be a daunting task.

The opportunity derived from engaging with the data even for optimization of internal processes and successful long-term engagement with existing clients is irresistible. IDC research shows that telco revenue from traditional data and IP services is steadily declining (-0.6% CAGR 2014-2019). In line with this, enterprises are moving to cheaper, more flexible core solutions like Ethernet and bundled services like cloud, where revenues do not match those of legacy services. This pattern is repeated in other services such as mobile data and voice which is forecast to grow at only 0.7% over the next five years as mature markets become saturated.

In the face of declining revenues for fixed and mobile environments and timelines around the realization of profitability for cloud and unified communications stretching into the future, a successful program to mine and exploit internal data becomes a business survival imperative. The results derived from mining this data can open the doors to new revenue streams, exploit existing customers and grow wallet share in stagnating markets. IDC Retail Insights predictions for 2015, based on analysis of industry trends and primary research, expect product intelligence (PI) to inform 80% of the pricing decisions for the top 10 ecommerce retailers, supporting the mainstream adoption of high velocity pricing. Similarly, location services and mobile payment solutions will be used to drive agile engagement and customer loyalty.

None of these predictions can be realized without timely, relevant customer data around mobile devices, usage and spending patterns – data that telcos collect in real time and can monetize into B2C intelligence.

Overcoming the skills challenge inherent in the effective extract, transformation and packaging of internal telco data requires effective partnerships. Though this data can be utilized currently to drive billing and network optimization, its transformation into a truly marketable product requires the cooperation of business intelligence, marketing and IT resources. Gaining access to those resources can be challenging leading many telcos to building partnerships with specialist consulting organizations to answer the fundamental questions:

- What should be monetized? Defining the classes and segments of data that can be utilized and defining the size of the market opportunity.
- How should it be monetized? Successful navigation of privacy and regulatory issues in a manner that benefits customers without breaching their trust is a key challenge.
- When should it be monetized? Selling off profiling information should be carefully judged so that the owning telco can take advantage of the data and not cannibalize its existing revenue streams.

Working closely with well-chosen partners will overcome the challenges inherent in the monetization of internal data through third parties and realize the opportunities in that data.

IDC recommends that CMOs looking to leverage analytics toward achieving their annual goals and align with the needs of the overall C-suite should consider the following:

- **Bulldoze silos.** The high prevalence of shadow IT investment in marketing is creating impenetrable digital silos. To overcome or integrate these silos, marketers must cultivate their relationship with the organization's CIO and IT department, rather than the current approach of going it alone. CIOs' approach to IT investment is changing and is now much more aligned to marketing's agile approach to budgeting, planning, and implementation.
- **Develop an enterprisewide strategy.** Many of the KPIs and objectives of the marketing department are virtually identical to those being focused on by IT. CMOs and CIOs should leverage common business objectives to bridge the gap and put differences aside. Possible ways to enhance collaboration include the CIOs and CMOs attending each other's department staff meetings, recruiting an employee who reports jointly to both managers, and joint pitching of ideas to investment decision makers and boards.
- **Recruit a marketing/IT broker (DevOps).** One of the biggest hurdles to bridging the gap between the CIO and CMO is often related to communications. An approach is to recruit a translator

(with technical and marketing skills) either from within the organization or through external partners to decipher key business requirements in a jargon that motivate each party. The CMO survey indicated that marketers have recognized this need already, within their skills shortage priorities (IT with marketing skills). Now, this acknowledged need must be converted into actions.

- **Recruit external expertise.** Two-thirds of CMOs rated advertising and creative agencies as playing a key role in marketing initiatives and programmes – much higher than other countries in the region. These agencies often have strong knowledge of the effectiveness of digital marketing tools, and CMOs need to leverage this relationship with the agencies to enable their relationship with the CIOs to make initiatives more effective and capable of being referenced.
- **Build your own.** A twofold approach is required to develop analytical capabilities in marketing: recruitment drives for analytically oriented marketing staff and digital maturity of marketing agencies and partners.

SUMMARY

Telecoms firms are facing a strong challenge to what have traditionally been their core areas of business. To fight off this threat, they need to take advantage of the masses of data they collect daily.

While there are technology issues to overcome, there are numerous examples of how telecoms operators' proprietary data could be used or sold to other firms. Allaying fears around the misuse of personal data, the telecoms operators need to make a big deal about how strongly regulated and secure they are – something that many of the newer competing firms cannot boast. Telecoms operators also need to engage with customers to highlight the benefits that they can enjoy if they allow their data to be used or sold, while at the same time offering them the option to protect elements they wish to keep private.

If they tread carefully, playing the data trump card will enable the world's telecoms operators to reinvent themselves as the industry's innovators, opening up lucrative new revenue streams.

TOWARD DATA MONETIZATION

- **Know what you own:** Understanding the data within the telco environment is easier said than done. Gather an inventory of the sources and types of data within the telco environment and work to understand how it can be combined and transformed.
- **Identify potential partners/third parties:** Identify partners including retailers, utilities, financial institutions who can contribute to the data pool owned by the telco. Expanding the data pool allows for the creation of a customer insight ecosystem built on trusted sources of data.
- **Gain internal buy-in:** Much internal data is sensitive and held under a banner of trust. In addition, data is already utilized to manage networks, implement security solutions and drive billing. Gaining access to key pieces of data in a timely and effective manner will require careful negotiation within the telco
- **Regulation, compliance and management of risk:** While the nirvana of extensive, real-time knowledge of the customer is compelling, the constraints imposed by data privacy and

sovereignty rules should be a key part of the discussion. Acknowledging data privacy regulations across the region along with the lack of cases testing the limits of those regulations, constrain pushing ahead with data collection initiatives.

- **A little goes a long way:** Starting with small initiatives with a low-cost base (preferably opex based) is a good start, especially if there was a high degree of involvement from the line of business. Using prebuilt analytics models and best practices could overcome the learning curve in defining a strategy. Consider gathering the required skills to augment internal capabilities from third parties, especially during the early stage.
- **Cross-industry partnerships:** The value in new markets such as Internet of Things (IoT) comes from the data that is being collected. The opportunities extend from the digital home to real-time analytics collected from wearable communications. In most models, there is no monthly recurring charge. This is being waved in exchange for data. Carriers will need to consider how to work across industries and embrace new business models where data collection trumps the annuity business for the two-sided business model. A number of Asia/Pacific carriers are struggling to understand the trade-off.
- **Platform consolidation:** Many carriers in Asia will have launched numerous platforms which have some way of collecting data, targeting customers and driving advertising. Reality is that there can often lack cross-platform coordination as to what is sent to customers.
- **Return on investment and minimum order quantity:** Operators continue to struggle on the ROI in many new ventures which set out to collect real-time data. It is difficult to quantify the value of data using traditional measurements. Likewise regional operators embarking on a new venture will have to look at other metrics such as minimum order quantity (MOQ) to determine break-even points. The smaller the target market, the higher barriers for investment.

About IDC

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