

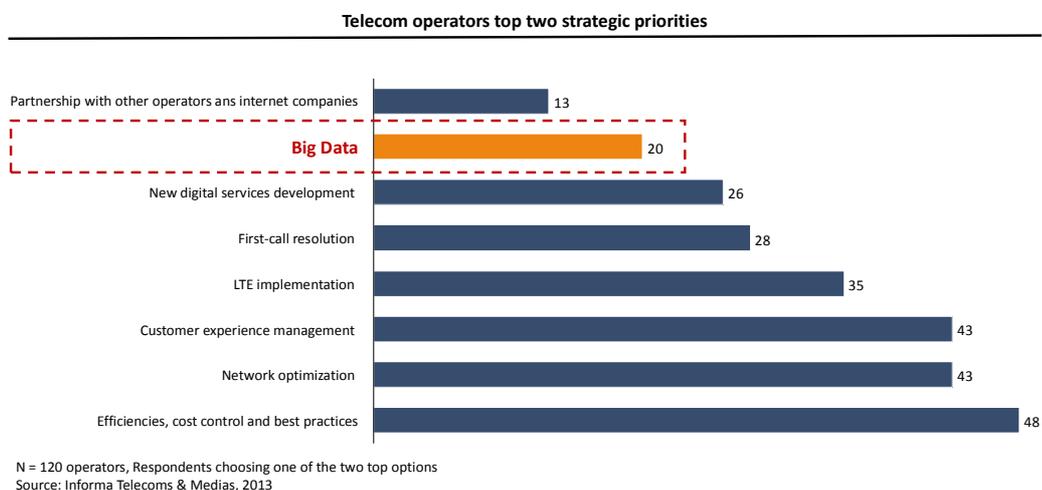
The Expert Corner

“Big Data Analytics”: A buzz word that has reality in the telecom environment

The disintermediation of the value chain in the telecommunications world has become a reality for executives who have to react to increasing pressure from competition on revenues and margins. Telecom operators have traditionally evolved toward an integrated model to propose connectivity services as a core product while building value-added services around. This has resulted in the multiplication of IT and network systems that made data management complex and non-agile in a time when data is taking a central role in the pursuit of new revenue opportunities.

The analytics pitfall

Beyond the buzz, the virtues of Big Data for real business have so far remained elusive for a lot of companies. High expectations have fallen short when facing the huge amount of effort required to implement Big Data solutions. This is true for all industries, but particularly obvious in the telecommunications sector, as shown below:



Although Big Data is closely linked to efficiency, cost control, network optimization and Customer Experience Management, operators still rank this item as a relatively low priority. **Why is that?**

Any operator generally chooses between one of these two approaches

- **Bottom-up:** start from the business problem and find the data to solve it.
- **Top-down:** start with all the available data and look for out-of-the-box opportunities.

In our experience both approaches have their advantages and risks.

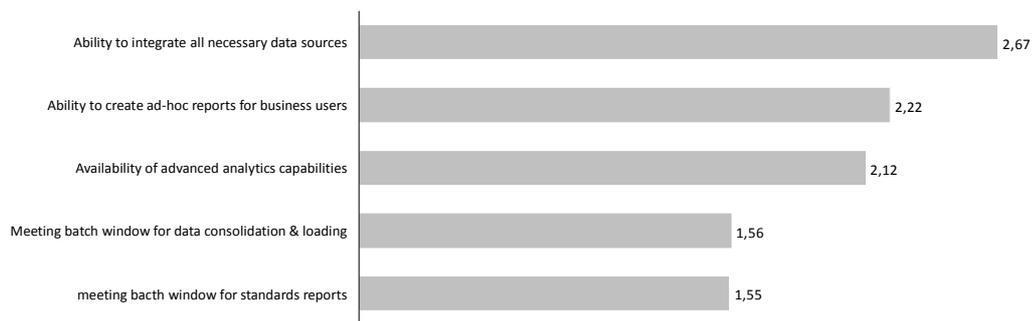
The bottom-up approach delivers exactly what was expected beforehand, but as the expected benefits are marginal, operators must carefully choose a solution that will be flexible enough to accommodate shifting priorities over the years.

The top-down approach - more technology-driven- guarantees to be future-proof, but it can be seen as an act of faith with no clear return on investment at the time the operator makes his choice.

In any case, 80% of the effort will be focused on getting the right data, and getting the data right, because of the patchwork of formats, protocols and heterogeneous technologies that operators have cumulated in their network and IT.

Another pitfall which is usually neglected is the organizational challenge posed by a Big Data project. The “let’s-focus-on-the-technical-challenges-and-fix-these-HR-problems-later-on” simply does not work, because, as a Mc Kinsey 2012 report states it, “It’s not the technical aspect of analytics, it’s integrating them into the heart of the organization that’s most challenging”. Otherwise, any new source of data that is revealed to be necessary will be jealously kept inaccessible by those who own it.

Top operational challenges that are a priority to telecom operators (1=least important, 3=most important)



Source: Heavy Reading

A multitude of use cases

Operators can benefit from Big Data either to improve their operational efficiency (optimizing their network cost), to maximize their customer overall lifetime value or to initiate new business models (geo-marketing studies, location-based advertising etc.)

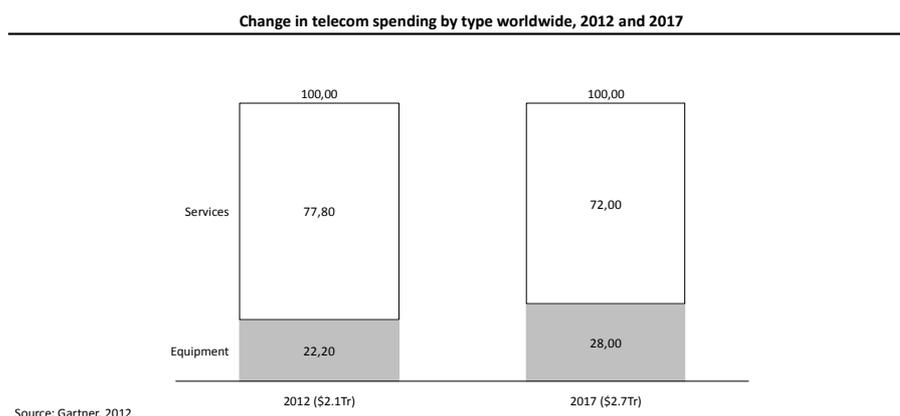
Improving operational efficiency

In the cutthroat world of western telecom arenas, combining saturated markets, competition from OTT players and undifferentiated services, operators are striving to get operationally leaner and to separate from the pack by offering a superior customer experience.

Business intelligence and customer insights: Meeting customers' requirements efficiently requires taking quick and accurate decisions, based on strong analytical capabilities. Fine grain monitoring of customers' usages and patterns is the only way to generate the right insights that can help MNOs drive their business forward, identify pockets of potential value creation and niches for improvements. Predictive analysis, flexible dashboards, performance modeling and simulations have become mandatory tools for those operators wishing to move forward.

Real-time customer experience management: Combining internal data –where and how does the subscriber use his phone- with external data from social media platforms, enables the operator to automate an optimized tariff plan or service pack proposal. Similarly, triggering the right proactive action based on analysis of usage and behaviors gives millions of subscribers the pleasing impression they are unique. To leverage on such insights, operators need to automate their business rules, with event-based marketing tools providing the right answer according to the customer's specific context.

Network management: As usage is growing exponentially operators are facing the complex challenge of containing their network costs while keeping a decent quality of service for their end-users.

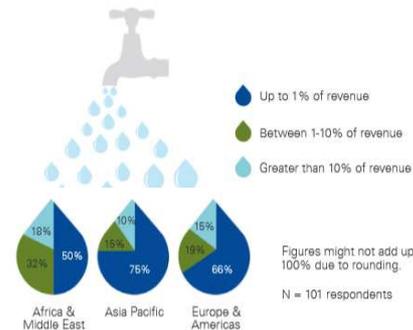


Monitoring the Radio Access Network based on its real-time traffic enables CSPs not only to have a global view on the QoS, but also to optimize routing and provide in real time the right quality of service for the end-users, depending on the current load. Historical data about of the network and the QoS also allows MNOs to optimize network planning by targeting investments precisely where they are the most profitable.

Fraud detection and Revenue Assurance: The introduction of ever-more complex and numerous services and technologies has dramatically increased risks of revenue leakages for operators, caused by both fraudulent practices and technical malfunctions.

Real-time call data records and location events analysis are powerful tools to detect abnormal patterns of usage as well as constant conciliation between CRM data, billing information and network logs. Be it for identifying risks of cloned cards, grey routes or retailers' fraud, Big Data Analytics may be a game changer as it uncovers new fraud practices quicker than ever.

Leakage as a percentage of revenue



Source: KPMG Global Revenue Assurance Survey, 2012

New revenue streams

Many operators also see in their new analytics capabilities, the opportunity to explore new business models. Selling directly their customer insights – once properly anonymized- or providing third parties with the benefits of their own business rules engines, are opening perspectives of fresh revenues on top of their traditional activities.

We describe below three of the main areas that operators are investing or plan to investigate in a near term:

Anonymized studies for brands, companies or public administration bodies wishing to understand how many people visit their facilities, who they are (in terms of socio-demographics), how long they stay, etc. Analytical tools offer the possibility for the third party to visualize real-time “heatmap” through an extranet access, showing anonymized attendance of a place in real-time and providing easy-to-use analytical tools, always respecting end-users’ privacy. Telefonica (with “Smart Steps”), Orange France (with “Flux Vision”) or SFR have already built dedicated geo-marketing offers for companies and public sector organizations.

Location-based advertising: many operators are opening their customer base to brands and media agencies, enabling them to promote their services to customers according to their location, provided that end-users have explicitly agreed to receive such solicitations.

Weve, a joint venture between the three major MNOs in the UK, is an interesting example of operators joining forces to offer a large base of “opt-in” subscribers willing to receive localized and contextual offers by SMS.

Verizon Wireless also launched a marketing initiative, providing brands with marketing insights about opt-in subscribers. So far Singtel has been the most proactive in this domain, acquiring Amobee, a mobile advertising platform.

IP TV analysis can bring to Telcos the ability to monitor in real-time the activity of all users connected to any TV or Video content, instead of the usual “representative sample”. Fine-grain analysis of the impact of each commercial is of great value to the brands as it will help them fine-tune their messages and media plan accordingly.

Conclusion

Operators are currently facing immense challenges in finding new sources of revenues and adapting their business models. At Intersec, it is our conviction that a golden nugget lies in the data that are available but still unused. Indeed, leveraging the opportunity requires going beyond the traditional approach, i.e not silo-ing applications across the organization nor applying the usual core business performance metrics to the new ones. Considering both new revenues and cost optimization benefits, the ROI is undeniable and future opportunities are safeguarded.



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About Intersec

With its expertise in next-generation software and telecom technology, Intersec designs solutions that enable mobile operators to capture and monetize their network value through Big Data collection for innovative services creation. Intersec integrates its leading core network solutions to generate location intelligence revenue and to maximize customer value management, contextual engagement, and messaging traffic profitability. Our award-winning products are designed to efficiently implement operator's loyalty & retention, value creation and cost optimization strategies.

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