ERICSSON

DATA-DERIVED GROWTH

Utilizing big data to bring about innovative offerings and new revenue streams

GET THE WHOLE PICTURE

ACTIONABLE INTELLIGENCE

Ericsson is driving the development of actionable intelligence within all aspects of ICT, based on insights from networks, IT environments and external sources. For our customers, this brings faster results, predictive power and new depth to analytics.

This document provides insights and opportunities connected to data-driven efficiency. To get the whole picture, see the data-enhanced customer experience and data-derived growth papers.

- **Data-derived growth:** creating innovative offerings and generating new revenue streams sparked by big data
- Data-enhanced customer experience: acquiring a deeper understanding of users and improving their experience at every touch point through high performance services, fast feedback and customized offerings
- Data-driven efficiency: taking advantage of the actionable information available within the organization, combined with insights from the market, in order to work intelligently and reduce costs

What is big data?

The term 'big data' refers to large amounts of data collected from a variety of sources and analyzed with the purpose of building business advantages. It is usually characterized in terms of 'three Vs' (Gartner): volume (amount of data), velocity (latency/speed) and variety (diversity of data types and sources).

We believe that in order to build business advantages, service providers need to be able to make decisions in an accurate and timely way. When utilized properly, big data analytics add considerable value to decision making – helping to make it more accurate and actionable.

20%

Increased efficiency

Using big data gathered through smart meters, Estonian electricity distributor Elektrilevi increased efficiency by 20 percent, reduced opex and capex, and improved its fault detection capabilities.

A VALUABLE RESOURCE

The raw material

Big data is a valuable raw material for the growth of your business. It serves as an incubator from which new insights can spark innovations. Furthermore, the data in itself is an asset that can be offered to others, providing new streams of revenue. It can also be used to explore relevance in previously untouched industry sectors.

The innovation potential of big data analytics is indisputable. In a 2013 survey of 1,000 senior business and technology executives, 66 percent said that they expect their big data initiatives to drive new product innovations[1]. As connectivity provides new possibilities for large-scale data analysis, small firms will have the same resources at their disposal as large enterprises. It is service providers that hold the key to this democratization of resources.

The need for a lab

The operational environment for data scientists is continuously in flux. They require the best possible circumstances to experiment, allowing them to try, fail, try again – and fail less.

Organizations are continuously improving their techniques and technology to make innovation more efficient. Information is becoming increasingly digitized, and sensors more equipped to measure vital information. The constant change in preconditions for data-derived innovation means that data scientists need some degree of freedom for trial-and-error activities, as well as the ability to be inspired and aided by ideas and projects from outside the organization. There also need to be policies in place that encourage experimentation, where privacy and data security boundaries are clearly drawn.

Source: 'Big Data Executive Survey 2013', p.16, NewVantage Partners, 2013

Asking the right questions

It's important to ask the right questions based on the data you have to hand. For example, knowing about subscriber preferences or the most visited places could lead to a discount recommendation service for products based on the customer's location. Queries regarding everyday behavior could lead to mobile services being combined with discount tickets for regular commuters. These services are the result of sharp insights managed effectively by a data-driven organization. Big data opens up new opportunities to continuously test hypotheses, giving businesses new tools for innovation.

Service providers' usage data is extremely valuable. Data from network nodes is a scarcity for many enterprises across all industries, but holds great value for anyone wanting to understand customer behavior. Operators can deliver that value to progressive enterprises seeking to leverage customer understanding for business growth. Aggregate statistics on usage patterns in different locations could help businesses to plan their activities in advance, for example by combining customer data records with an analysis of user preferences.

Big data opens up **new opportunities** to continuously test hypotheses, giving businesses new tools for innovation

With big data analytics capabilities, operators can become relevant partners across various industry verticals, establishing new business models with partners in different ecosystems. For instance, these insights could make it possible for car manufacturers to offer smart transportation services, or utility companies to provide smart home services.

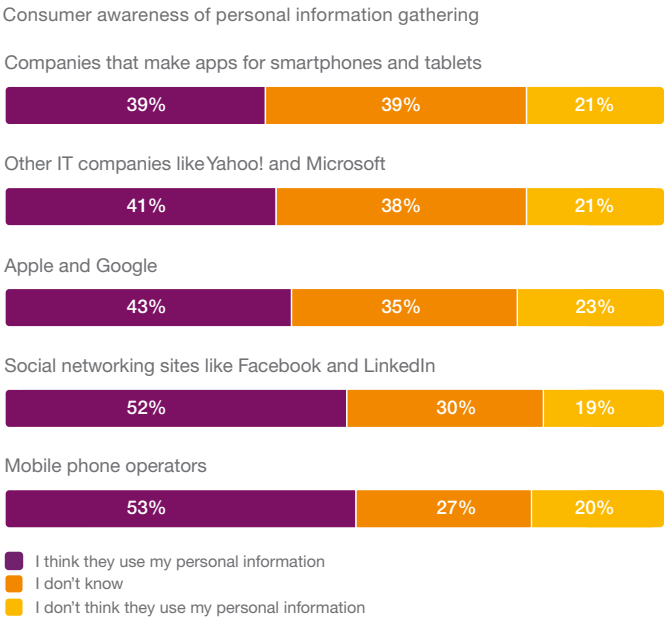
AWARENESS IS THE ONLY OPTION

Transparency strengthens trust

Consumers are surprisingly uninformed about the amount of information drawn from their devices by operators and over-the-top (OTT) service providers. But increasing this awareness would benefit all parties.

As a 2013 Ericsson ConsumerLab report shows, consumers are aware that companies collect personal information about them, but they don't know to what scale. Generally, they also do not fully comprehend what the information is used for. Anonymous usage data – the kind that makes up the lion's share of operators' big data – is regarded as less problematic from the consumers' point of view. But there is also a low awareness that multiple data sets of anonymous data may risk reconstructing personally identifiable information.

Operators who have a clear strategy and put their money on transparency, permissibility and value sharing will strengthen trust among subscribers. Lack of knowledge about data privacy issues among consumers should be intentionally addressed.



Source: 'Personal Information Economy', Ericsson ConsumerLab, 2013.

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Sparking innovation

Data-driven innovation can help businesses to expand their portfolio of products and services. Customer needs, desires or problems can be a source of ideas, which could in turn be realized through big data techniques. Creativity, data science skills and domain expertise combined provide a good base for increasing revenue from existing subscribers.

Make use of usage data

User behavior and preferences sourced from telecom networks can be valuable to various ecosystem partners. Monetizing consumer data with operators as a trusted information broker can be achieved by offering information about patterns and preferences to other partners.

This is achieved by creating an inventory of valuable information, securing the privacy of customers and bringing insights to clients. Offering aggregate statistics mitigates the risk of privacy breaches. In terms of value propositions, it helps to utilize resources in a more effective way, creating new revenue streams and expanding the client's customer base.

Look for new business segments

The expertise and capabilities operators possess in terms of networks and big data makes them key players when it comes to serving other industries. Operators have the opportunity to serve new verticals in different ways, such as offering M2M services to the transport sector by leveraging sensor data and wireless networks. Since the necessary infrastructure is already in place, these opportunities are available immediately to operators. To address them is to strategically define the business processes that systematically convert data into actionable insights.

NURTURING BUSINESS WITH BIG DATA

Always room for improvement

Adopting an innovative culture requires leadership that abstains from micromanagement. There is a need to embrace a certain 'beta mentality', recognizing the fact that a product or service offering is never finished, but always has scope for improvement.

Be open to collaboration

New revenue streams can be created if a co-creative approach is deployed in the right way. Operators should recognize the fact that potential clients in new industries possess a domain expertise that gives them a knowledge advantage. They also have certain needs and codes of conduct, to which it is necessary to adhere. Operators should therefore include domain-specific insights in their product and service offerings in order to be relevant as partners.

It's all about strategy

The need to give a company's innovators free rein cannot be emphasized enough. However, there is a balance to strike between freedom of innovation and the need for a clear business development strategy. To make innovation efforts worthwhile, progress must be aligned with the overall business direction.

Be transparent

Always respect the consumers' need for privacy and information about how their personal data is utilized. Consumers must feel that their privacy is respected when using network services, including secure storage and secure transmission of data.

With this in mind, clarity, transparency and permissibility must be top priorities when handling private information. Offering something of value in return increases the willingness to share information. Concerns about sensitivity diminish if consumers can see a clear benefit from sharing personal information. With a transparent strategy regarding user data, trust in the operator will improve. A lack of transparency and strategy could mean paying a high price.

FILLING IN THE BLANKS

We combine unmatched strength in telecom technology with service excellence and global scale. Our job is to help businesses nurture innovation from the grounding that big data provides.

The combined information from networks, users and machines gives actors an edge with which to create unique solutions. We are the only partner who is able to extract node data from the network that is as detailed as individual customer activity. We are also one of few partners who can collate, handle and analyze it.

Operators benefit from our innovative approach in new sectors, where success is the result of analytical skill and domain expertise. Should any operator have insufficiencies in these areas, Ericsson can fill in the blanks.

We are a provider of state-of-the art Software as a Service (SaaS), Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) solutions, which can be utilized by operators and in turn offered to clients in new or existing industry segments. This makes the road to business development through data-driven innovation shorter and less costly.

As a company managing networks for more than 1 billion subscribers, with a presence in 180 countries, we have the global reach and the local knowledge necessary to offer advice and support almost any business endeavor.

CASE STUDY | ELEKTRILEVI, ESTONIA

Elektrilevi, Estonia's biggest electricity distributor, wanted to drive Estonia's energy efficiency goals with an improvement of 20 percent by 2020. It was in need of a solution which would increase its electricity metering efficiency. Ericsson was chosen as the primary partner for its smart meter rollout, ensuring the deployment of more than 600,000 smart meters by 2017.

All of Elektrilevi's electricity meters were replaced with smart meters, where metering and fault information is continuously sent to the electricity operator.

This helps to increase Elektrilevi's understanding of the root causes of grid problems. Half of the deployed smart meters provide Elektrilevi with consumption values – allowing customers to be guided by their meters and shift consumption to cheaper hours.

Since the rollout Elektrilevi has reduced both opex and risk, thanks to the availability of live network data. The company has also improved its detection of power losses and other faults, as well as accuracy and timeliness of billing.

Ericsson is the driving force behind the Networked Society – a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, businesses and societies to fulfill their potential and create a more sustainable future.

Our services, software and infrastructure – especially in mobility, broadband and the cloud – are enabling the telecom industry and other sectors to do better business, increase efficiency, improve the user experience and capture new opportunities.

With more than 110,000 professionals and customers in 180 countries, we combine global scale with technology and services leadership. We support networks that connect more than 2.5 billion subscribers. Forty percent of the world's mobile traffic is carried over Ericsson networks. And our investments in research and development ensure that our solutions – and our customers – stay in front.

Founded in 1876, Ericsson has its headquarters in Stockholm, Sweden. Net sales in 2013 were SEK 227.4 billion (USD 34.9 billion). Ericsson is listed on NASDAQ OMX stock exchange in Stockholm and the NASDAQ in New York.

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