For 70% of companies, ‘Big Data’ fail to generate returns above the cost of capital. This is bad, doubly so because the data is from the telecommunications industry which started exploiting big data early and where the scope for exploiting data is perhaps greater (and surely more obvious) than in most other established sectors. Indeed, by 2014 leading telcos were reporting fully 20% of their profits came from big data, clearly demonstrating the opportunities for getting it right. Let’s examine this in more detail.

The data quoted comes from a peer-reviewed article Reaping the benefits of big data in telecom published in 2016 and based primarily on data from a survey conducted in December 2014 of 273 executives. At the headline level, it is in line with our experiences.

Leveraging data and scientific marketing for commercial advantage has been a strategic imperative for mobile telecommunication companies for decades. The delivery of this advantage took formal shape with the Customer Value Management (CVM) approach which we first created for Vodafone in the early 2000s (see our original case study). We have seen across nearly a dozen operators that full implementation of CVM generates directly attributable incremental EBITDA growth of around 5% per year. In revenue terms, operators typically measure 10% additional revenues in the first year alone.

Data is clearly important in this industry and the value is clearly demonstrated. So what goes wrong with the big data projects? The article provides a list of issues; the top three reported bottlenecks are:

- Data: Lack of quality.
- Organization: Big data [function] is too low in the organization.
- Organization: Big data IT not synchronized with [business] functions.

The first one is an excuse; the real issue here is that the big data project is not led from the commercial business but from IT. When IT leads your data project then they can only aim for perfection, but there is no such thing as perfect data. You need to lead from the business in order to manage and understand the inevitable trade-offs in providing data and to be able to decide what is good enough. The outcome you want is not perfect data but profitable business change. Keep the end in mind.
The first two issues, then, are both about business leadership, or rather, the lack of it. That would be in line with our experience as well. We have found that successful big data implementations do five things right:

Successful big data implementations do five things right

1. **Lead from the top**
   - Big Data opportunities cut across the enterprise and only the CEO and board can provide the leadership. Culture change quickly becomes important, and culture has to be lived from the top. Measure the right things. *What is your organization’s return on data?*

2. **Deliver quick commercial wins**
   - Every organization has low-hanging fruit; there is money being left on the table right now. Start now. The best time to start a big data project is ten years ago. The second-best time is now.

3. **Build the right IT capabilities**
   - You need the right capabilities to keep your commercial insights / data science teams productive in the longer run; this is where your capital investment goes. But build the right capabilities; this will not be the same for every organization.

4. **Keep it business focused**
   - Start with the end in mind, and the end is *always* business-change. Not technology, data, models, reports or anything else. Measure success by commercial KPIs like revenues and profits generated. Keep it real.

5. **Engage the right skills, especially ‘translators’**
   - The key skills you need to successfully exploit big data McKinsey calls[1] ‘business translators who combine data savvy with industry and functional expertise’. They bring it together and bring it to life. Don’t let IT run ‘big data’, don’t let Data Science run it, nor operations. This is a new function.

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**“What is your return on data?”**

Lead from the top: Big Data opportunities cut across the enterprise and only the CEO and board can provide the leadership. Culture change quickly becomes important, and culture has to be lived from the top. Measure the right things: What is your organization’s return on data?

Deliver quick commercial wins: Every organization has low-hanging fruit; there is money being left on the table right now. Get started, now. The best time to start a big data project is ten years ago. The second-best time is today.

Build the right IT capabilities: You need the right capabilities to keep your commercial insights / data science teams productive in the longer run; this is where your capital investment goes. But build the right capabilities; these will not be the same for every organization.

Keep it business focused: Start with the end in mind, and the end is *always* business change. Not technology, data, models, reports, or anything else. Measure success by commercial KPIs like revenues and profits generated. Keep it real.

*Do not let data scientists run your data science function*
Engage the right skills: The key skill you need to successfully exploit big data is what McKinsey calls business translators who combine data savvy with industry and functional expertise. They bring it together and bring it to life. Don’t let IT lead your initiatives; don’t let Data Science run it, nor operations. This is a new function.

If data is an asset, then how do you measure your return on data? If you answer is around the size of your data lake, the number of data scientists you have, or even the number of cool-pilot-projects-that-never-got-into-production, then you’ve got it backward.

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