

TELCOS: THE UNTAPPED PROMISE OF BIG DATA

The industry is awash in information, but only a few companies manage it effectively.

by Jacques Bughin

Now that subscribers constantly connect to their networks through voice, text, and other smartphone interactions, telecom companies have access to huge quantities of data. Yet relatively few of those that have adopted big data architectures and analytics technologies have pushed aggressively enough to profit from them significantly, our research suggests. Interestingly enough, however, a small group has achieved outsized benefits from such investments, in a performance pattern that resembles a “power curve” distribution.

We reached these conclusions after surveying executives from 273 global telecom companies representing nearly a quarter of industry revenues.¹ Nearly half of the respondents say that their companies are considering investments in big data and analytics, while 30 percent of companies surveyed have actually made them. To find out whether such efforts improved overall performance, we estimated big data’s contribution to earnings in two ways: by asking survey respondents and by conducting a statistical analysis that correlated the profits of companies with their capital and labor investment and their use of big data.

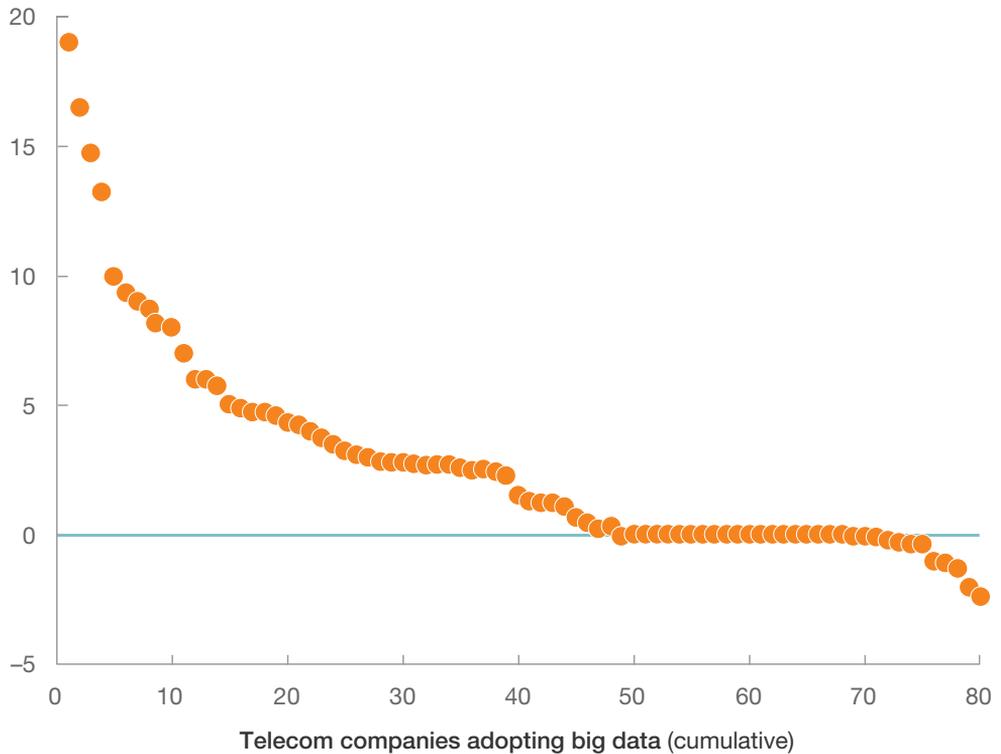
The first approach was possible for the 80 companies in our sample that reported making big data investments. The results of the other approach, using external data available for 47 of the companies, were similar.

When we plotted the performance figures for the 80 companies (exhibit), we found that in a few of them, big data had a sizable impact on profits, exceeding 10 percent. Many had incremental profits of 0 to 5 percent, and a few experienced negative returns. Most of the latter blame the poor quality of their data and a shortfall of talent for their inability to scale up big data activities. We also found that many organizations manage big data at a level too low to make it a strategic priority.

The potential for companies that apply data science effectively is substantial. One of them used analytics models to predict the periods of heaviest network usage arising from video streaming. It subsequently took targeted steps to relieve congestion during those times, reducing its planned capital expenditures by 15 percent. Another company had a machine-learning model that combined sociodemographic data, information

Among telecom companies that invested in big data, only a few enjoyed an incremental profit impact exceeding 10 percent.

Impact of big data on telecom companies' profits, % of total profit



Source: 2015 McKinsey survey of 273 global telecom companies, 80 of which have made big data analytics investments.

from customer touchpoints (such as call centers and social media), and data on network usage. It was able to identify, in real time, the customers most likely to defect or have trouble paying their bills, as well as to cut churn by three percentage points and to improve the recovery of payments by 35 percent. To achieve similar results, other telecom companies could start by mapping out the wealth of data at their disposal and their opportunities to exploit it. 

¹ We asked the respondents about their investments (including those for IT and for hiring data-analytics talent) and returns for big data. For the complete set of research findings, see Jacques Bughin, "Reaping the benefits of big data in telecom," *Journal of Big Data*, July 2016, journalofbigdata.com.

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