

Big Data, the Next Big Thing

Guest Column

ROOPA KUDVA

With the explosion in the quantity of data that global enterprises are collecting, businesses are wondering how to use Big Data to drive revenue and profit growth. Big data is the enormous datasets that are awkward to manage with current database management technology. Big data is also opening up opportunities for knowledge service companies as they support global companies in handling, organising and analysing the data to obtain meaningful business insights.

Handling large volumes of data involves issues like technology, privacy, regulatory compliance and so on. The biggest effort for knowledge service companies, though, will be to develop a skilled workforce capable of generating value-adding insights from the data. This will call for huge investments and innovation in creating and grooming a new breed of talent.

The amount of data companies and governments are collecting continues to multiply exponentially. The amount of digital information available in the world increases tenfold every five years and comes from a variety of sources: clicks on the net, sensors, mobile phones, computers and gadgets.

The definition of what constitutes big data itself is evolving constantly: in the 1980s it was megabytes, in the 1990s gigabytes, in the

2000s terabytes, and currently it is probably a few 1,000 or million times that number.

People looking to utilise this data to deliver bigger and better returns need to tackle several issues, including technology. This deals with processing capacity, storage capacity and the ability of networks to carry data. There are issues relating to quality and accuracy of data, data security and privacy and regulatory compliance.

But the most important thing is the ability to make sense and extract wisdom from the data. So, we feel that leveraging the big data opportunity will be a talent and skills issue more than anything else.

For example, for a risk management function we need to model thousands of different value-at-risk scenarios. A retail bank might want to target the best-fit customers for a new credit card product. A financial regulator could want to improve monitoring of large volumes of algorithm driven trading platforms. All these can be tackled by carefully sifting big data.

But to solve problems like these we need people with multifaceted skills: knowl-

edge of advanced statistical techniques, modelling capabilities, strong understanding of the business context, customer insights, perhaps even some knowledge of regulations and programming. And the simple fact is that there are not enough of such multi-faceted people the workforce today; and the best education systems in the world are not designed to produce such industry-ready talent.

India produces about one lakh management graduates and software engineers every year but the number of statistics graduate is hardly 5% of that: just 4,000. Statistics courses in business schools are not the ones in greatest demand. Even the US has about 23,000 statisticians and China about 19,000.

MBAs, software engineers and statisticians are individuals with differing skill sets, but, big data analytics requires an individual to combine the capabilities of a statistician, a software engineer and an MBA—the pool of individuals who combine such complementary skill sets is insignificant when compared to the needs of the industry.

Companies will have to make investments in breed-

ing and grooming such talent, a process that could take years. This will involve a whole range of initiatives for talent attraction, retention, skill development, business-academia interface and employer branding.

This is not going to be easy. But, because the payoffs of these investments will be huge in terms of top line, bottom line benefits, regulatory compliance and so on, firms will be willing to make the investments needed to produce this new cadre of business-thinkers.

This process will call for tremendous innovation in talent management practices. For example, in our operations in Poland, we have a number of PhDs who work on complex quantitative and modelling assignments for global banks.

We bridge the skill gap needed to man quantitative and analytics intensive roles by encouraging senior quantitative research staff to teach quantitative courses at local Master's degree programs. This, apart from filling a curriculum gap, also brings solid business applications into the classroom and encourages students to think in terms of application as against theory.

Countries like India will retain advantages due to demographic factors, and the fact that the education system is producing a huge pool of analytical talent.

Talent from across the world needs to be leveraged for the opportunity that big data analytics provides.

(The author is managing director and CEO of Crisil)

Big data will be the next frontier for maximising revenues and profits

The volume of data being generated globally is growing exponentially

The main challenge in this market is to get large numbers of skilled analysts

