Making real-world use of Big Data

Prepared by AmCham member

What is so new about Big Data, the tech buzzword that is attracting so much attention these days? After all, many organizations, from global telecommunications companies to stock exchanges, have been handling and sifting though massive amounts of data for years.

Three important trends are converging to usher in a new era of Big Data, one that will fundamentally transform how businesses operate and how they engage with customers, suppliers, partners, and employees.

The first seismic change is in the area of mass digitization. Today, through the use of instrumentation such as radio frequency identification technology, companies and individuals can monitor in real time everything from the status of a bullet train racing across the countryside to the hourly energy usage in their homes or even of individual appliances.

The second trend is social media. People around the world are communicating and interacting via social networks in ways that were unimaginable only a few years ago.

And the final trend is the advancement that we have seen in the area of technology that enables organizations to store, access, and analyze these huge new streams of data.

The convergence of these three trends is enabling organizations to efficiently leverage massive amounts of new kinds of data to make more informed decisions and deliver tremendous value throughout their enterprise.

Big Data @ Work Study

Leading organizations that are taking advantage of Big Data are deriving real results according to the Big Data @ Work Study conducted by IBM's Institute of Business Value and the Saïd Business School at the University of Oxford. The study findings show that 63% of those surveyed report that the use of information and analytics, including big data, is creating a competitive advantage for their organizations, up from 37% just two years ago – a 70% increase.

For instance, McLeod Russel India Ltd. completely eliminated systems downtime in the tea trade through more accurate tracking of the harvest, production, and marketing of more than 100 million kilos of tea annually.

Meanwhile, South Africa's largest short-term insurance provider, Santam, used advanced analytics to collect data about incoming claims, automatically assessing each against different factors to help identify patterns of fraud in order to save millions in fraudulent insurance payments, while at the same time drastically reducing the processing time for legitimate claims.

The survey highlighted a few consistent approaches that successful companies are taking as they grow their Big Data initiatives:

- **Focus initially on customers**
  For many organizations, the greatest value associated with big data is in the area of customer analytics. By using Big Data to truly understand customer preferences and anticipate future behavior, companies can significantly improve customer service and loyalty. In the era of the digitally empowered consumer, this is crucial. Customer information and analytics can help companies connect with customers in new more effective and relevant ways that enhance and personalize customer interactions and satisfaction.

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- **Start with existing data**
  To achieve results, while building momentum for longer-term projects, companies are taking a pragmatic approach by taking advantage of existing information and technology. These organizations are gaining new insights from existing internal data and then extending into new sources of data over time. In many organizations the size and scope of this internal data, such as detailed point-of-sale transactions for retailers or call records for a telecom, is extremely large and clearly represents Big Data. By applying advanced analytical models and methods, this data delivers valuable new insights into customers, suppliers, marketing campaigns, pricing programs, employee leadership potential, among other things.

- **Develop analytics skills based on business priorities**
  As reflected in the Study, one of the major inhibitors of Big Data success is the lack of requisite analytical and technical big data skills. The success of big data projects will hinge on closing this gap. Organizations have to invest in not only the tools, but also the combination of business, technical and analytical skills required to deliver on the promise of Big Data.

- **Craft business case with clear goals**
  Another challenge highlighted in the study is the need for organizations to develop the quantifiable business case necessary to advance their big data initiatives. To this end, successful organizations are deriving significant economic benefits in areas such as customer retention, marketing effectiveness, supply chain optimization, real-time pricing, and employee productivity, while at the same time reducing the costs associated with maintaining existing information management environments.

Another key lesson learned from leading organizations is that, to achieve success with Big Data, it is imperative that business and IT collaborate and work closely together. Big Data means nothing as a technological advancement if it does not help organizations derive true business value by becoming smarter, more efficient, more responsive to customers, suppliers and employees and ultimately more profitable.

Branislav Šebo
Country General Manager, IBM Slovakia