Global Survey: The Business Impact of Big Data
November 2010

Executive Summary

In the global marketplace, businesses, suppliers and customers are creating and consuming vast amounts of information. Gartner predicts that enterprise data in all forms will grow 650 percent over the next five years. According to IDC, the world's volume of data doubles every 18 months. This flood of data, often referred to as "information overload," "data deluge" and "big data," clearly creates a challenge for business leaders.

So where is all this data coming from and what business value does it have? Who's demanding this data and who's creating it? And, are companies prepared to deal with the onslaught of data? In August 2010, Avanade commissioned a survey of 543 C-level executives and IT decision-makers in 17 countries to learn the answers to these questions*.

Key findings show us that the data deluge is real. In fact, the majority of respondents report being overwhelmed by the amount of data in the workplace. Many employees feel constantly distracted by multiple streams of information – this is especially true of C-level executives.

> **Despite feeling overwhelmed, there's an insatiable desire for *more data.***

Despite feeling overwhelmed, executives have an insatiable desire for more data. Companies appear to be addicted. The majority of respondents believe information will fundamentally change their business. And yet today, only a minority views their company data as a strategic differentiator. Most, instead, see it as a consequence of doing business.

Following are the specific findings from Avanade's global survey, "The Business Impact of Big Data," including some surprising differences between small and large enterprises, and the private sector and government.

Big Data – Hype or Business Reality?

Across industries, regions and companies large and small, executives report the exponential growth in data and ability to access to critical information is creating very real business challenges. More than half of business and IT executives, 56 percent, report they feel overwhelmed by the amount of data their company manages. Many report they are often delayed in making important decisions as a result of too much information. Surprisingly, 62 percent of C-level respondents – whose time is considered the most valuable in most organizations – report being frequently interrupted by irrelevant incoming data.

Further, amidst the sea of data, Avanade's research shows that one in three executives is regularly unable to find the right people who can provide the information they need when they need it. And, according to a recent industry report, during the latest recession, more than one-quarter of executives have lost business because they couldn't access the right information. It's clear information overload is real and causing problems for business leaders.

According to execs, the influx of data is putting a strain on IT infrastructure as well with 55 percent of respondents reporting a slowdown of IT systems and 47 percent citing data security problems.

1 in 3 Execs Can't Find the Right People with the Right Data

Despite these challenges, executives do recognize there is value in the flood of data, from improved business forecasts to reduced uncertainty in decision-making and improved competitive positioning.

Across all industries, including government, healthcare, media, energy, among others, data is becoming central to business operations. Sixty-one percent believe the flood of data entering the enterprise fundamentally changes the way their businesses operate.

Data Addiction

The onslaught of data is making it difficult for executives to make decisions and it has a negative impact on IT infrastructure. Company employees and management are overwhelmed by big data. Yet, they are still asking for more and they want it faster. This begs the question: are company executives addicted to data?

Seventy percent of business leaders report their current IT infrastructure allows employees to get the data they need at the speed they need it. These sentiments were true across all markets including healthcare and government – a particularly interesting finding given the public-sector's reputation as slow when it comes to information management and reporting. That said, 61 percent of all executives say they still want faster access to data. Further, one in three reports they desire *even more* sources of data in order to do their job better.

Need for Speed

Executives' first instinct appears to be grasping for faster access to data to help them cope with information overload. So why this need for speed? According to the survey, the top concern for executives is the ability to keep up with customer service expectations. And when it comes to perceptions of the most important

Where Does The Data Come From?

E-mail 72%, Word Documents 46%, Spreadsheets 36%, Customer Databases 33%, Presentations 21%, Online Portals/Corporate Sites 20%, Instant Messages 13%, Social Media News Feeds 9%, Other 6%, RSS Feeds 6%, Friend Contact Lists 5%

kinds of data, customer is king. Execs report customer relationship and sales information are critical to their strategic decision-making process. While speed is important, executives must seek out context for the information to ensure they understand the full scope of the customer relationship.
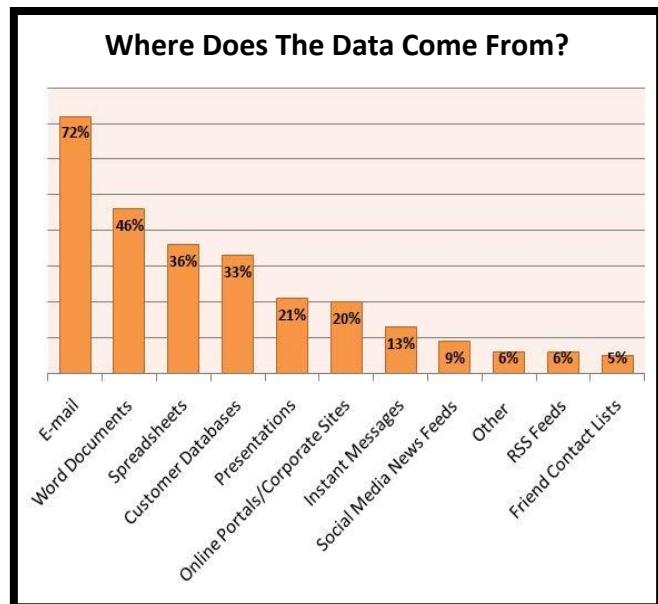
Executives recognize the opportunity to grow their top line by harnessing customer information and this focus is driving technology investments in CRM systems – 67 percent of executives have invested or are seriously considering investing in CRM in the next 12 months. In government, the demand for CRM is even higher at 74 percent.

While some IT investments will help business grow, others are more defensive measures.

With growing data, there is a growing requirement for data security. Seventy-eight percent of companies report they are investing in security solutions or will do so in the near future. There is an even greater focus on security in the public sector, with 85 percent investing as a result of the influx in government data.

Big Data Disconnect

Despite the increasing volume of data, pressure to keep up with customer expectations and focus on technology investments, today's companies are still struggling to see big data as a driver of real business value. Enterprises have an opportunity to leverage their data to create new revenue streams and generate new businesses. But alarmingly, less than half of execs view the available sources of data as a strategic differentiator for their organization.

So where's the disconnect? Nearly half, 43 percent, of all companies are dissatisfied with their current tools to filter out irrelevant data. In fact, 46 percent of companies report they have made an inaccurate business decision as a result of bad or outdated data. It is imperative that organizations address this filter failure to reduce detrimental business decisions and position themselves to be able to react quickly to business conditions.

Small Business, Big Data
By a small but noticeable margin, executives at small companies (fewer than 1,000 employees) are nearly 10 percent more likely to view data as a strategic differentiator than their counterparts at large enterprises. Understanding the value of their data may be just what it takes to grow these small companies into large ones.

Deriving Business Value from Big Data

So how do we get from where we are today to where we want to be? It's clear many companies lack the basic measures to manage big data, but see huge potential benefits if they can learn to leverage it effectively. Businesses must employ a holistic approach to data management – a new approach for many – and one that focuses on the following stages in the data lifecycle:

- **Identify:** Today, every business is a digital company; and, every customer or employee is a content producer. The first step to creating business value is to prepare the enterprise to be able to quickly accommodate new data sources, then to understand where the data is coming from, who is creating it and where the content lives.

- **Filter:** The second step is to determine what information is important and what information does not matter and provide tools and data management policies that enable staff to effectively filter information for relevance quickly. It is vital to consider how the company will use the data. Next, companies must identify what filters to apply, how to categorize the data and then, establish processes so that producers (all employees and customers) are more accountable for the information they are creating.
- **Distribute:** Because different information is intended for different levels, locations and business units, companies must utilize a distribution mechanism that is both automated *and* intelligent.
- **Apply:** Overall, businesses must evolve from data analysis to insight to prediction. Applying the right data in the right case is crucial to this evolution. Some organizations may even find opportunities to monetize data in new ways and create competitive differentiation.

Underpinning all of the steps of the data lifecycle is search. Search is a critical foundation to tackle the big data problem and companies must introduce comprehensive tools that allow employees to find the right real-time data from across structured and unstructured sources.

Companies must develop a "data culture" where executives, employees and strategic partners are active participants in managing a meaningful data lifecycle. Tomorrow's successful companies will be equipped to harness new sources of information and take responsibility over accurate data creation and maintenance. This will enable businesses to turn data from information into business insights.

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*Notes on Methodology

The Global Survey of Big Data was conducted by Kelton Research, an independent research firm on behalf of Avanade, in August 2010. The 543 respondents include C-level executives (e.g. CEO, CFO, CIO, CTO), business unit leaders (GMs, heads of departments and functions, etc.) and IT decision-makers from 17 countries across North America, Europe and Asia Pacific.

Large enterprises (similar in size to companies in the FORTUNE 1000) made up the majority of respondents on a global basis. Respondents from the United States, Canada and the United Kingdom originate from the top 1 percent of the largest companies by employee headcount within their respective countries. Respondents from all other countries originate from the top 5 percent of the largest companies by employee headcount within their respective countries.

Companies surveyed span major industries, including Aerospace, Defense, Energy, Financial Services, Government, Healthcare, Logistics, Manufacturing, Media, Non-Profit, Telecommunications and Other.