

HIGHPOINT ASSOCIATES: INSIGHTS

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CONTRIBUTIONS FROM ALON BOCHMAN & IVÁN MARKMAN

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Is Big Data the Answer?

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Big data. It's THE game changer your company has been looking for. It can drive dramatic cost reductions and productivity improvements, help you discover the next best product and transform your marketing strategy.

After all, big data helped UPS review routes and save \$30 million every time it reduced one daily mile driven per driver.ⁱ Companies are even using big data to run behavioral tests and provide insight on the best person to hire for a job.ⁱⁱ

So why aren't you using it?

"Don't panic," says HighPoint Senior Advisor Bob Kaplan, who has over 30 years of consulting and senior executive experience in IT strategy and operations. "All the hype suggests that big data is the panacea for business today. But the reality is not so clear. Yes, there are amazing opportunities to be realized when you use big data and data analytics effectively. But that doesn't mean there aren't plenty of challenges and issues needing to be addressed."

In fact, 55 percent of big data projects don't get completed, and many others fall short of their objectives.ⁱⁱⁱ And while the worldwide market for analytics remains top of mind for CIOs through 2017, more than half of projects will fail because they aren't completed on time or on budget, or don't deliver what was hoped.^{iv}

So what's standing in the way?

FINDING THE TALENT TO EXECUTE

"It's no secret you need a certain level of analytics expertise and most companies don't have it," asserts Alon Bochman, a HighPoint Advisor with special expertise in high-impact modeling, analytics and data-driven challenges.

In fact, "finding talent" and "finding the right tools" rank as significant challenges for companies trying to tackle big data (at 80 and 76 percent respectively).^v Not only is there estimated to be a shortage of 140,000 to 190,000 workers with deep analytical skills by 2018 in the United States alone, we're going to need another 1.5 million managers who can take the analysis of big data and use it to make sound business decisions.^{vi}

You also need to change mindsets in IT. "Too often, the CIO's desire to police his systems has conflicted with the demand for business managers to introduce innovation," explains Kaplan. "It no longer works for IT to be sole gatekeeper and interpreter. You can't just have an IT strategy for using big data; you have to define how data analytics fits with the company or business unit's strategic capabilities and priorities."

INTEGRATING ALL THIS DATA

Big data lets you analyze and combine structured and unstructured data. And that's the challenge. How do you take unstructured data (sourced from online behavior, purchases, mobile devices, social media, sensors, etc.) and integrate it with internally-generated data, combining multiple data sets?

"You're not just integrating big data with more traditional sources of information, but trying to perform meaningful analytics," explains Iván Markman, COO of MarketShare, a cloud-based analytic software provider. "Unless you make the right technology choices from the onset, you set up more challenges."

Finding the right technology is like shooting darts at a moving target. "The capabilities of what we can do are increasing very quickly," adds Bochman. "It's not about selecting a tool for 'life,' but a tool that can address your current analytic need and might be relevant for the next one."

And don't forget cost. While there's certainly data and analytics software that's free, most isn't. And often when it's "free," it's not necessarily designed to be used with the system or platform you have.

GETTING PEOPLE TO THINK IN A NEW WAY

Despite all the hard evidence proving the value of data, it's still human nature to rely on instinct and emotion. In fact, the majority of executives (61%) agree that human insights must still precede hard analytics when making decisions, and believe it's often necessary to rely on gut feelings and soft factors.^{vii}

Explains Bochman, "Taking on a big data project can be a

substantial risk for an organization. You need the business skills to build a case for what you're doing and where you're going. You need technical skills to wrangle the data, and you need to also think creatively and expansively to put different data sources together. It takes a lot of lateral thinking."

Theoretically, data analytics is everyone's job, but not everyone is trained for it. For example, consider a collections manager from a smaller company who learned his job without any of these technologies. Suddenly you're telling him he needs to consider data analytics, which means nothing to him. He's been using financial metrics to do his job (e.g., average days outstanding or percentage write-offs each year). Getting him to think about data as a resource, let alone giving him the training to use it is a significant challenge.

Furthermore, who owns the data? Who controls it? Asserts Kaplan, "The more sources you can integrate into your data analytics, the more insight you will generate. You have to connect silos and get people to work cross-functionally. But anytime you go cross-department or across business units to get different types of data, organizationally it can get very complicated."

DEFINING A MEANINGFUL OBJECTIVE FOR THE DATA

There's an almost infinite amount of data out there. By 2020, it's estimated the data we create will double in size every two years to reach 44 zettabytes – as many digital bits as stars in the universe.^{viii} How do you make sense of it all?

"You need to define what type of data makes the most sense based on your information and business needs," explains Kaplan. "Different types of information are valuable to different functions. Think specific company, specific problem, specific data. You need a business case. If the data distracts from the core goals, you're wasting your time and resources."

Kaplan elaborates: Think about the business problem you are trying to solve. Are you trying to understand what's happened in the past (descriptive analytics), understand what's going on in real time (prescriptive modeling to specify optimal behaviors and actions), or predictive modeling (use models based on past data to predict the future). It's not as simple as it looks.

DIP YOUR TOES

Despite the roadblocks and if done right, big data can offer big benefits. The question is, where do you start?

1. Start with low-hanging fruit. Choose a project that's

relatively easy to implement yet big and clear enough to have a straightforward impact on profitability. Kaplan suggests setting a goal related to either a revenue or cost driver. For example, start with an analysis of renewal rates or use data to get a sense of the price elasticity of your product. If churn is a significant part of your business you could analyze that.

2. Avoid investing in significant technology. Kaplan suggests starting with a platform you already have in-house, rather than spending time evaluating multiple systems. For example, if you are a salesforce.com or SAP user, they offer multiple analytic software options from which to pick and choose that integrate with your existing platform. The idea is to minimize complexity as much as possible. Avoid companies that require you to adopt their framework to dump your data into their system. It's too much too fast. Keep it simple.
3. Do something in the cloud and avoid bringing anything in-house. The cloud offers tremendous advantages with respect to scalability, infrastructure and speed that are not available with internal IT infrastructures.
4. Find a natural champion on the business side to spearhead the pilot, and avoid too much involvement from your internal IT department. Since the pilot is going to be using outside technology, keep the focus on the business objective not your organization's technological capabilities.
5. Empower your project leader to make the investment in two or three key people who have the technological capabilities to get the work done. Kaplan recommends starting with consultants, knowing that a lot of the platforms like salesforce.com or SAP have a wealth of consulting partners who can step in for the pilot project and have the training and expertise you need.

Most importantly, keep your business objective front and center. It's easy to get distracted.

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 - iii Infochimps, Inc., "CIOs & Big Data: What Your IT Team Wants You to Know," 2013. www.infochimps.com
 - iv Gartner, Inc., 2013, "Gartner Predicts Business Intelligence and Analytics Will Remain Top Focus for CIOs Through 2017," Dec. 16, 2013. <http://www.gartner.com/newsroom/id/2637615>
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 - vii The FORTUNE Knowledge Group with gyro, "Only Human: The Emotional Logic of Business Decisions," June 2014. www.gyro.com/onlyhuman
 - viii EMC Digital Universe with Research & Analysis by IDC, "The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things," April 2014. <http://www.emc.com/leadership/digital-universe/2014view/executive-summary.htm>

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BOB KAPLAN has over 30 years of experience as a senior executive and management consultant. He currently counsels CEOs and other senior executives on strategy, IT and organizational issues. Bob has held senior executive positions such as acting CEO and acting CIO for multiple companies including: Motif Inc, ITM Software, Netliant, Alibris and Silicon Valley Bank. Bob spent 11 years at McKinsey & Company, where he was a Director in the San Francisco and Silicon Valley offices, and a Leader of the IT and Systems Practice. Prior to joining McKinsey, Bob was the Managing Partner of the San Francisco office of The Boston Consulting Group. He also worked at Peat, Marwick, Mitchell & Co. (now KPMG) as a Systems Consultant. From 2005-2007, Bob was a member of the Technology Advisory Peer Group for the State of California. This group of private sector executives provided advice and counsel to the state CIO as part of the Governor's Information Technology Consolidation and Realignment Initiative. Bob holds an MBA from the Stanford Graduate School of Business and a BA from Yale University

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